REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

200/210 MCKENZIE AVENUE BELLINGHAM, WA

(FSID #151016)

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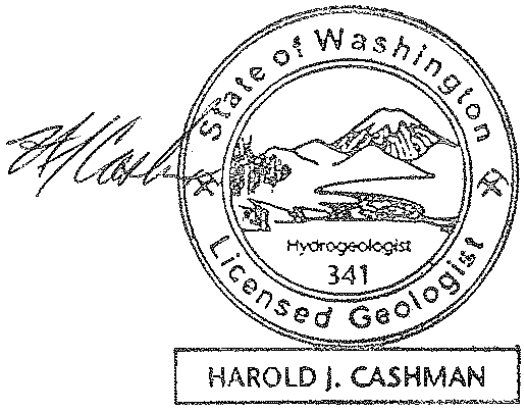
CERTIFICATION STATEMENT

All geologic and hydrogeologic work performed pursuant to this report was conducted under the supervision and direction of the geologist listed below:



5/17/2024

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All engineering work performed pursuant to this report was conducted under the supervision and direction of the engineer listed below:

5/17/2024

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1. INTRODUCTION

This Remedial Investigation and Feasibility Study (RI/FS) has been prepared as a means to collect, develop, and evaluate sufficient information regarding the 200/210 McKenzie Avenue property to select a cleanup action under WAC 173-340-360 through 173-340-390. The Remedial Investigation portion of the document presents the data collected to characterize the site. The Feasibility Study portion of the document presents cleanup alternatives. The General Facility Information is provided below. All figures referenced in this report are included in Appendix A. All tables referenced in this report are included in Appendix B.

- Site Name: 200 & 210 McKenzie Avenue
- Facility Site ID #151016
- Parcel Number: 370211403538 & 370202452038
- Legal Description:
    - 370211403538 – FAIRHAVEN TIDELANDS THAT PTN OF LOTS 75-76-77 DAF-BEAP OF INTERS OF SLY LI OF MCKENZIE AVE-INNER HARBOR LI OF BELLINGHAM BAY-TH SLY AT R/A TO SLY LI OF MCKENZIE AVE 175 FT M/L
    - 370202452038 – TR IN GOVT LOT 1 DAF-BEG ON S LI OF MCKENZIE AVE 50 FT W OF C/L OF FOURTH ST FAIRHAVEN LAND CO'S 2ND ADD TO FAIRHAVEN TH W ALG S LI OF MCKENZIE AVE 474 FT-TH SLY PAR TO FOURTH ST 300 FT-TH E PAR TO
- Property Owner: City of Bellingham
    - Address: 200 McKenzie Ave, Bellingham, WA 98225
    - Contact: Stephen Day
    - Phone: (360) 778-7944
    - Email: smday@cob.org
- Project Consultant: ALL4 LLC
    - Address: 228 E Champion St #101, Bellingham, WA 98225
    - Contact: Aimee Pennell
    - Phone: (360) 752-9571
    - Email: apennell@all4inc.com

2. REMEDIAL INVESTIGATION

2.1 SITE DEFINITION AND SETTING

The site is located at 200 and 210 McKenzie Avenue in the City of Bellingham, Washington, as shown on Figure A-1. The 210 McKenzie Avenue property is the source of the contamination at the site and is referred to as the "subject property" in this RI/FS. The site extends westward from the subject property onto the adjacent 200 McKenzie Avenue property.

2.1.1 Site Location

The property is located at the southwest corner of the intersection of 4th Street and McKenzie Avenue in Bellingham, Washington (Figure A-2). The property is located in the southeast quarter of the southeast quarter of Section 2, Township 37 North, Range 2 East. The subject property is situated approximately 2.85 miles southwest of Downtown Bellingham, 0.25 miles from the outlet of Padden Creek, and 0.18 miles east of Bellingham Bay.

The subject property covers approximately 3.3 acres and the median elevation of the parcel is approximately 20 feet above mean sea level (Figure A-3). The topography at the property is generally level with a difference of approximately five feet between the high point located near the south center of the property (near monitoring well MW-5) and the northwest, southwest, and northeast corners (near wells MW-1, MW-3, and MW-6, respectively).

The southeast corner of the subject property has been leveled. The leveling work occurred in the late 1990's as part of preparation efforts for the construction of a new structure. The proposed structure was never constructed. The volume of soil removed from the property at that time (if any) is unknown.

2.1.2 Neighborhood Setting

The subject property is located in an area characterized by commercial and industrial properties. The layout of the subject property and adjoining properties is shown on Figure A-2. The parcel to the south and west is owned by The City of Bellingham and is the location of the Post Point Wastewater Treatment

Plant. The property to the east is used as a long-term parking lot for passengers of the Alaska Ferry. A warehouse and the Burlington Northern/Santa Fe (BNSF) railroad tracks are located north of the subject property across McKenzie Ave.

The 200 McKenzie Avenue property is zoned Public and the 210 McKenzie Avenue property is zoned Industrial by the City of Bellingham. The 210 McKenzie Avenue property is currently used by industrial and commercial occupants. The 200 McKenzie Avenue property is used by the Post Point Wastewater Treatment Plant.

2.1.3 Site Discovery

A Phase I Environmental Site Assessment (ESA) was conducted on behalf of the City of Bellingham in 2006 (Whatcom Environmental, 2006). The ESA was conducted for the property located at 210 McKenzie Avenue in Bellingham, Washington. The Phase I ESA report dated June 26, 2006, is included in Appendix C. The Phase I ESA revealed evidence of multiple recognized environmental conditions (RECs) associated with the subject property, including:

- the existence of subsurface petroleum contaminated soil associated with the three former fuel storage tanks (Purnell, W. D. & Assoc., 1994a and b);
- the presence of a gasoline underground storage tank;
- metal working operations associated with the former chain and forge business including galvanizing of chain and storage of petroleum products;
- past and current boat fabrication operations, including sand blasting of boat hulls, painting activities, and the use of lead ballast;
- storage of numerous drums of unknown content;
- above ground heating oil and waste oil tanks at the auto repair business; and
- an underground hydraulic lift at the auto repair business.

The subject property RECs were investigated in April 2007 by excavating 30 test pits at various locations across the entire property. The investigation findings were reported to Ecology in a report dated June 25, 2007, titled *Initial Site Investigation* (WES, 2007b). Twenty-four soil samples were collected to evaluate

subsurface soil conditions. Three soil samples were collected from the ground surface to evaluate suspected areas of surface contamination. Three trench water samples were collected from water infiltrating into the excavated trenches.

Laboratory analytical results indicated petroleum constituents, volatile and semi-volatile organic compounds, and metals contamination were present at several locations in the soil and groundwater at concentrations exceeding the MTCA Method A target cleanup levels. Remedial Investigation work has continued at the site since 2007 and is summarized in Section 2.3.

2.1.4 Site Definition

The "site" described in this document is defined as per WAC 173-340-200 and includes "any area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located." The "site" is defined as the approximate areas of soil and groundwater contamination identified at the property. The site is defined by the presence of contamination and buried waste material located primarily on the eastern portion of Parcel #370211403538 and the western portion of Parcel #370202452038. The buried waste material is associated with the property's former use as a brick manufacturer, a chain and forge facility, and a boat building and maintenance yard. The site also includes four relatively small areas of shallow soil contamination located east of the main site. The contaminated soil portion of the site is approximately 0.62 acres in area (Figure A-3).

The site soil contamination consists of petroleum constituents, volatile and semi-volatile organic compounds, and metals at concentrations exceeding soil cleanup levels for unrestricted land use. The site groundwater contamination consists of dissolved arsenic, dissolved iron, and diesel- and oil-range total petroleum hydrocarbons at concentrations exceeding groundwater cleanup levels.

The site has been assigned the Facility Site ID #151016, Cleanup Site ID #3204, and former VCP Project #NW2179 (site removed from VCP program in December 2016).

2.2 PROPERTY DEVELOPMENT AND HISTORY

The subject property was initially developed beginning in the late 1800s and was first industrially developed in the early 1900s. Several phases of development occurred at the property over the next several decades. Over time, the property was used as a brick manufacturing facility, a foundry, a chain manufacturing facility, several types of boat manufacturing facilities, a warehousing and general storage facility, as an auto repair shop, and as a machine shop.

2.2.1 Current Development

Five buildings are currently located on the 210 McKenzie Avenue property. The buildings were constructed between 1943 and 1944. The buildings are identified on Figure A-3.

Building #1 is located near the northeast corner of the parcel. It is the largest of the six structures at ~7,000 sq. ft. and is constructed of metal beams with a sheet metal skin. It is currently occupied by a company producing plastic kayaks, docks, and floats using a Roto-Molding machine.

Building #2 is a wooden frame building located west of #1 and is ~5,000 sq. ft. in area. It was occupied by the Iota Metal Working Services until recently and is now occupied by the City of Bellingham Post Point Maintenance Staff.

Building #3 (west of #2) is connected to #2. Building #3 is a wooden frame construction that is ~2,500 sq. ft. in area. It is currently used for storage by the Washington State Ecology Youth Corps (EYC).

Building #4, located south of #3, is ~1,000 sq. ft. in area and made of wood. It is also used by EYC for storage and for storage of Post Point Maintenance equipment.

Building #5, located west of #3, is ~3,000 sq. ft. in area and made of wood. It was formerly occupied by John's Repair, an auto repair company which utilized an underground hydraulic lift. It is currently occupied the Post Point Maintenance Department and is used as a parts warehouse.

2.2.2 Historical Development

Several sources of historical information were researched in order to determine the history of land use at the subject property.

2.2.2.1 Ownership History

The ownership history of the site was researched using historical deed documents. The ownership history for parcel 370202 452038 0000 (210 McKenzie Avenue) back to 1900 is shown below.

DATE	Grantor	Grantee
05/05/00	Fairhaven Land Company	C. X. Larrabee
08/18/43	Larrabee Real Estate Company	Bellingham Chain & Forge Company
04/04/44	Larrabee Real Estate Company	Bellingham Chain & Forge Company
12/07/44	Larrabee Real Estate Company	Bellingham Chain & Forge Company
12/31/45	Bellingham Chain & Forge Company	L.A. Walker
11/29/46	L.A. Walker and Irene Walker	Bellingham Chain & Forge Company
05/29/63	Bellingham Chain & Forge Company	Portland Chain Manufacturing Co.
10/01/65	Portland Chain Manufacturing Co.	Webster Manufacturing Inc.
08/16/74	Webster Industries Inc.	Frank H. Wright
02/14/77	Frank H. Wright dba Wright Manufacturing Co.	Bellingham Stevedoring Company
11/20/00	Bellingham Stevedoring Company	Homeport Properties Inc
06/30/06	Homeport Properties Inc.	City of Bellingham

Review of the deed history for the site indicated that the site was used for commercial/industrial activities since approximately 1943.

2.2.2.2 Sanborn Fire Insurance Maps

A summary of the subject property development was compiled based on historic Sanborn Fire Insurance Maps, which are included in Appendix D.

- Records indicate that the property was first industrially developed in 1904 as an ironworks complex.
    - Three structures were associated with the industrial ironworks complex.
    - These buildings are not part of the 5 existing structures but were located in the vicinity of Building #5.
    - A reference to 'Oil Storage' was located at the corner of 3rd St. and McKenzie in 1904.
- In 1913 the property was used by 'Coast Clay Company' as a brick making facility.
    - A large circular kiln was located south of Building #5.
    - The kiln fuel was coke as indicated on the Sanborn map.
    - The Oil Storage pad located at the corner of 3rd St. and McKenzie referenced on the 1904 Sanborn map is present on the 1913 map; however, the reference to oil storage has been deleted.
- By 1932, the property was once again a metal working company that forged chains.
    - Fuel Oil is indicated on the Sanborn map as a source of fuel for the facility.
- In 1940, the property is occupied by the Bellingham Chain and Forge Company.
    - Eight new structures are shown on the 1940 Sanborn map (the three structures shown on the earlier map versions are no longer present).
    - The five currently standing property structures are part of the eight historic Chain and Forge complex structures.
    - Four petroleum storage tanks are indicated on the 1940 Sanborn map.
    - Three large fuel tanks were located in the northwest corner of the property (the tanks were removed in the 1980s).
    - One small gas tank was located between Buildings #3 and #4 (the tank was removed in 2007).
- Bellingham Chain and Forge is still present and operational at the property in 1950.
- The 1964 Sanborn map indicates that the Chain and Forge facility is no longer doing business at the property and several of the buildings were vacant at that time.

2.2.2.3 Polk City Directories

A summary of the subject property development was compiled based on a review of historic Polk City Directories. The businesses indicated in the Sanborn map review were corroborated by the Polk City Directories.

- The Bellingham Chain and Forge business left the property between 1961 and 1962.
- From 1962 to the present, the property has been used by various boat manufacturing, repair, or sales companies:
    - Wright Manufacturing Company (builder of plastic boats shown on the 1964 Sanborn map) - 1962 to 1971, in Building #2; 1977 in Buildings #1 and #2
    - Daniel's Fiberglass Boats – 1970 to 1977, in Building #5
    - Aquilo Corporation (boat manufacturer) – 1971, in Building #1
    - Uniflite (boat manufacturer)- 1980, in Buildings #1, #2, and #3
    - Nordic Yachts Inc. – 1985, in Building #1
    - Northwest Marine Fabrication – 1992, in Building #1
    - All American Marine, Inc. – 2003, in Building #1
    - IOTA Metalworking Service – by 2006, in Building #2
- In 1985, Bowhay Machine Shop occupied Building #3.
- In 1992, a company called Enerwaste International occupied Building #2. Enerwaste built incinerators.
- The present-day auto repair shop, John's Repair, is listed in 1992 in Building #5.
- In 1998, refrigeration equipment was being sold from Building #2.
- In 2003, Building #2 housed a company called EcoWaste Solutions Group. EcoWaste was a waste disposal company. It is unknown if any waste was stored on-site prior to disposal.

2.2.2.4 Aerial Photographs

A summary of the subject property development was compiled based on a review of historic aerial photographs. Aerial photographs from the years 1940, 1950, 1962, 1963, 1975, 1986, 1988, 1995, 1997, 2002, 2004, 2008, and 2011 were reviewed. Copies of the aerial photographs are included in Appendix E.

The 1940's oblique photo is a view towards the south and shows the subject property south of McKenzie Avenue. The Chain and Forge buildings are visible, as well as all present structures. The graininess of the photo makes it hard to see the three fuel oil tanks located near the northwest property corner. The property was surrounded on the east, west and south by vacant land. The land to the west of the property appears to be a low-lying wetland.

The 1950 photo is similar to the previous image. It shows the subject property with all present structures, as well as the Chain and Forge buildings. The current buildings are numbered #1-#5, and historical buildings which are no longer present are numbered #H1-#H3. Due to the graininess of the photo, the three fuel oil tanks are barely discernible in the northwest corner of the property. Parcels to the east, west and south remain undeveloped.

The 1962 image shows the property with all current structures and the two Chain and Forge buildings. The three fuel oil tanks are visible in the property's northwest corner. A new structure is located south of Buildings #3 and #4. The adjacent properties to the east, west, and south remain undeveloped. However, the south parcel appears to have been cleared or is in the process of being filled.

The 1963 oblique image is a view towards the north and shows a similar property layout as in the 1962 image. A small shed is seen near the southern property line, south of the new structure noted in the previous image. The three fuel oil tanks are clearly seen south of the office building at the northwest corner of the property. The adjacent parcel to the south that appeared to be in the process of being filled and graded in the 1962 image is seen in this image with a scattering of new plant growth on bare soil.

The 1975 photo shows the property with all structures seen in the previous image. Evidence of surface disturbance/grading/filling is seen on the western edge and southwest corner of the property. The first structures of the Post Point Water Treatment plant are seen to the south and west of the property.

The 1986 photo shows some significant changes at the subject property. The pull-test building (#H-2) that sat on the southern edge of the property is no longer present. Anecdotal evidence suggests that this structure was destroyed in a fire. The structure noted as new in the 1962 image (#H-4) is no longer present. The small shed first noted in the 1963 image (#H-5) is no longer present. Evidence of surface

disturbance/grading/filling continues to be seen on the western edge and southwest corner of the property. Planted trees now line the western and southern edges of the property. The three fuel oil tanks are not easily seen in this image. The wastewater plant does not appear to have significantly changed since 1975.

The 1988 photo shows the property in a similar configuration to the 1986 photo. The western edge and southwest corner of the property appear to be vegetated; indicating that surface grading/filling activities in that area was completed by 1988.

The 1995 photo shows the subject property in a similar configuration to the 1988 photo. Several storage trailers appear to be present south of Buildings #1 and #2. The area to the south of the office building (#H-3) in the northwest corner of the property has been cleared of trees since the previous image and the three fuel oil tanks are no longer visible. The southwest corner of the property appears to have been cleared of vegetation.

The 1997 photo shows the subject property in a similar configuration to the 1995 photo. The western portion of the property appears to be used for vehicle and boat storage, and several large boats are visible in the southwest corner of the property.

The 2002 photo shows the subject property in a similar configuration to the 1997 photo. Stored boats are seen in the open area south of Buildings #5 and #H-3. A row of vehicles (presumed to be Volkswagen vans) is visible west of Building #5. One large plastic covered Quonset hut is present near the southeast corner of Building #1 and a smaller hut is present south of Building #2. The southeast corner of the property appears to have been leveled or cleared of trees.

The 2004 photo shows the subject property in a similar configuration to the 2002 photo. The large Quonset hut that was at the southeast corner of Building #1 is no longer present.

The 2008 photo shows several changes at the subject property. The former office building (#H-3) is no longer present. All of the stored boats have been removed from the western portion of the property. The

groundwater monitoring wells installed in 2007 are visible. A large soil pile is visible near the southwestern corner of the property.

The 2011 photo shows the property in its current configuration.

2.2.3 Potential Future Development

The City of Bellingham purchased the property in 2006 and plans to use the property to expand its Post Point WWTP and Public Works Operations facilities.

2.2.4 Road and Utilities Infrastructure

Approximately one third of the property is paved with either concrete or asphalt. The two areas where the historical Chain and Forge buildings were located are covered by concrete slabs marking the original building footprints. Most of the northern portion of the property surrounding the existing buildings is covered with asphalt. The west and southern areas of the property are covered with gravel or grass. No roads have been constructed on the property. The property is fenced and gated. The chain-link fence line encompasses the entire property.

Utilities at the property include a storm water collection system (consisting of at least five catch basins), water supply lines in the western third of the property, and exterior electrical supply lines also on the western third of the property. Buildings are heated by natural gas or wood heat.

2.2.5 Contamination Sources

The sources of contamination at the site are related to the past commercial/industrial uses of the property as a brick manufacturer, a chain and forge facility, and a boat building/repair/storage yard.

2.2.5.1 Property Sources

The property sources include historical petroleum storage tanks that were documented to have leaked, a variety of waste debris dumped as fill material on the western edge of the property from the past brick and chain manufacturers, and surficial spills from boats stored at the property.

2.2.5.2 Neighboring Property Sources

No sources of contamination from neighboring properties are known to have affected the subject property. However, subsurface fill material and debris similar to that which was discovered on the western portion of the subject property has been found on the adjacent property to the west.

2.3 ENVIRONMENTAL INVESTIGATIONS AND INTERIM ACTIONS

Several environmental investigations (EI) and interim actions (IA) have been completed at the property since 1990. The locations of all historic investigation work are provided on Figure A-4. A summary of all historic soil sample data results is provided on Figure A-5, and a summary of all historic groundwater data results is provided on Figure A-6.

2.3.1 Chronology

The chronology of the environmental investigations and interim actions conducted at the property is best summarized by presenting a list of report documents associated with the site. These documents are included in Appendix C of this document.

- Post Point Pollution Control Plant Secondary Expansion Geotechnical Data Report (DRAFT). CH2M Hill. August 1989. - EI
- Environmental Site Assessment: Phase II, 206 and 208 McKenzie Avenue, Bellingham, Washington. Purnell, W. D. & Assoc. January 5, 1994. (Partial Document) - EI
- Final Report, On-Site Thermal Desorption of Contaminated Soil, 206 and 208 McKenzie Avenue, Bellingham, Washington. Purnell, W. D. & Assoc. December 16, 1994. - IA

- Phase I Environmental Site Assessment Homeport Properties Inc. 210 McKenzie Avenue Bellingham, Washington. Whatcom Environmental Services. June 26, 2006. - EI
- 210 McKenzie Avenue – Underground Storage Tank Removal and Site Assessment. Whatcom Environmental Services. June 20, 2007a. – EI/IA
- Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington. Whatcom Environmental Services. June 25, 2007b. - EI
- 210 McKenzie Avenue – Surface Soil Remediation and Disposal Action. Whatcom Environmental Services. November 1, 2007c. - IA
- Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. February 11, 2009. - EI
- 2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. March 15, 2010. - IA
- 2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. March 18, 2011. – EI/IA
- 2011 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. January 12, 2012. – EI/IA
- 2021 Site Assessment Report, Post Point Resource Recovery Plant Biosolids Project, 200/210 McKenzie Avenue, Bellingham, Washington (FSID #151016). Whatcom Environmental Services. November 5, 2021.

2.3.2 Soil Investigations

A soil geotechnical report was prepared for the City of Bellingham by CH2M Hill in August 1989 as a part of the Post Point Wastewater Treatment Plant Upgrade. A topographic map was included in the report that shows the topography of the western side of the subject property prior to its being filled and leveled. The report describes numerous soil borings and test pits completed near the property boundaries but

outside of the impacted site. The soil boring logs provided with the report indicate that fill materials were not encountered in any significant quantity outside the subject property boundaries. No indication of petroleum contamination was noted on any of the soil boring logs. Peat layers and abundant shells were encountered in several of the geotechnical borings supporting the interpretation of the natural history of the property as a tidal marsh or upper beach. Test pit TP-12 and soil boring B-3, completed in 1989, were used to assist in defining the western edge of the site (Figure A-4).

The discovery of petroleum contaminated soil (PCS) at the property was first documented in a limited Phase II ESA report dated January 5, 1994, titled *Environmental Site Assessment: Phase II* prepared by W. D. Purnell & Associates. The copy of the report obtained for review was incomplete. The location of the documented contamination was loosely referenced in the text as a "UST pit" and seemed to indicate its location near the northwest corner of the property. Three tanks can be seen in this location on historic aerial photographs and in historic Sanborn fire insurance maps. The report stated that the location of the "UST pit" was "excavated in fill material that includes clay, sandy gravel, bricks and metal debris". Although the reviewed report was incomplete, it did state that PCS was present at the property above the MTCA Method A cleanup levels applicable at that time and that the release was reported to Ecology.

A subsurface soil investigation was conducted at the property in April 2007. The investigation findings were reported to Ecology in a report dated June 25, 2007, titled *Initial Site Investigation* (WES, 2007b). The intent of the investigation was to determine the extent of the PCS remaining at the western portion of the property reportedly remediated in 1994, and to determine if other areas of contamination exist at the property. Thirty exploratory trenches/pits were excavated at the property. The trench excavation logs are included in Appendix F. Observations made during the excavation work indicated that the western portion of the property contained fill material (including glass, bricks, and metal debris). Water appeared to be perched in the western fill/debris material. The majority of the remainder of the property appeared to be underlain by relatively dry native clayey silt. Twenty-four soil samples were collected to evaluate subsurface soil conditions. Three soil samples were collected from the ground surface to evaluate suspected areas of surface contamination. Test pit locations are shown on Figure A-4. Laboratory analytical results indicated petroleum constituents, volatile and semi-volatile organic compounds, and metals contamination were present in the property soil at concentrations exceeding the MTCA Method A

target cleanup levels. The laboratory analytical data from 2007 are summarized in Tables B-1 - B-4. The laboratory analytical data confirmed that historical land uses had impacted soil quality at the property.

Subsurface soil was also investigated in 2007, 2010, and 2011 during the installation of the groundwater monitoring well system (WES, 2009; WES, 2010; WES, 2011). Soil borings were advanced to depths ranging from 15 to 20 feet below the ground surface (bgs). The soil boring logs are included in Appendix G. Fill debris was discovered in several of the soil borings, both on and off the subject property. No soil samples were collected from the borings in 2007. Soil samples were collected from the borings in 2010 and 2011. Laboratory analysis of the soil samples confirmed that petroleum and metals contamination originating on-site may have been historically dumped or migrated to the City of Bellingham's Post Point property. The laboratory analytical data from 2010 and 2011 soil sampling are summarized in Table B-5.

The subsurface soil conditions at the site were further investigated in 2020 and 2021 (WES, 2021). Twelve soil borings were drilled in October 2020 and seven soil borings were drilled in July 2021 (. The borings were continuously cored to depths ranging from 10 to 50 feet below grade. Soil boring logs are included in Appendix G.

Seven test pits were excavated in November 2020, to depths of 5 to 6 feet below grade. A Bruker S1 TITAN Series Handheld X-ray fluorescence (XRF) Analyzer was used screen soil samples collected from the test pits for arsenic and evaluate the potential of using the XRF in the field to guide any arsenic cleanup work conducted in the future. Arsenic results were recorded on the test pit logs included in Appendix F.

Laboratory analytical results of the soil samples collected in 2020/2021 assisted in further delineating the extent of the soil contamination at the site. The laboratory analytical data from 2020 and 2021 soil sampling are summarized in Table B-6.

2.3.3 Groundwater Investigations

The groundwater at the subject property was initially investigated, in a limited nature, during the 2007 soil investigation. Oily sheens were observed on perched water contained in several of the test trenches excavated on the western portion of the property. Trench water samples were collected, and laboratory

analysis indicated that it was possible that petroleum compounds and metals may have impacted the perched water at the property.

Four phases of groundwater monitoring well installation work were undertaken at the property following the identification of areas of soil contamination. Six wells were initially installed within the confines of the subject property in July 2007 (MW-1 through MW-6). The investigation findings were reported in the document dated February 11, 2009, titled *Groundwater Investigation Data Report* (WES, 2009). Those six wells were monitored quarterly for approximately 4 years. Water sample laboratory analytical data showed consistent concentrations of arsenic exceeding the MTCA Method A target cleanup level at two locations (MW-2 and MW-6). Minor concentrations of petroleum contamination were detected in one well (MW-3) at concentrations which did not exceed the MTCA Method A cleanup levels. Groundwater analytical data collected at the site since 2007 are summarized in Tables B-7 – B-9.

Three additional wells were installed in May 2010 (MW-7 through MW-9). The investigation findings were reported in the document dated March 18, 2011, titled *2010 Additional Site Investigation and Groundwater Monitoring Report* (WES, 2011). Water samples collected from the wells confirmed that arsenic contamination at concentrations exceeding the MTCA Method A target cleanup level was present off the subject property. Laboratory data also indicated that petroleum and lead contamination, discovered in the soil, were not impacting groundwater quality.

An arsenic speciation study was conducted in January 2010. The study findings were presented in the report dated March 18, 2011. The laboratory data support the hypothesis that the elevated arsenic values are the result of reducing conditions in the perched groundwater. The low oxidation/reduction potential of the groundwater causes arsenic-bearing ferric iron Fe(III) to be reduced to ferrous iron Fe(II), which allows the adsorbed arsenic to go into solution. Based on the arsenic speciation findings, the source of the dissolved arsenic is presumed to be desorption from mineral oxides in the aquifer matrix caused by the reducing conditions observed at the property.

Three additional wells were installed in June 2011 (MW-10 through MW-12). The investigation findings were reported in the document dated January 12, 2012, titled *2011 Additional Site Investigation and Groundwater Monitoring Report* (WES, 2012). Groundwater sample laboratory analytical data collected

in 2011 confirmed the presence of arsenic in well MW-11 at concentrations exceeding the MTCA Method A target cleanup level. No other contamination was detected.

Groundwater monitoring wells were installed in two of the October 2020 soil boring locations. The wells were identified as MW-13 and MW-14. One piezometer was installed in one of the July 2021 soil boring locations. The piezometer was identified as Piezometer P-1. The piezometer was installed to a depth of 10 feet bgs, and the top of the screen is approximately 2 feet bgs.

Groundwater monitoring has continued at least annually at the site. Monitoring wells MW-1, MW-2, MW-6, MW-7, MW-10, MW-11, and MW-12 continue to have fairly consistent detections of arsenic at concentrations which exceed the MTCA Method A cleanup level. Monitoring wells MW-2, MW-3, MW-6 through MW-9 continue to have detections of diesel/oil range TPH at concentrations which exceed the MTCA Method A cleanup level.

The groundwater monitoring well construction diagrams are included in Appendix H.

2.3.4 Interim Actions

The petroleum contaminated soil discovered by W. D. Purnell & Associates was excavated from the former tank pit and treated on-site via thermal desorption (Purnell, 1994b). The December 1994 report documenting the on-site treatment of the PCS indicated that some of the soil had to be treated three times before finally passing the allowable MTCA concentrations. The report concluded by stating that treated soil was used to backfill the tank pit. The report's conclusions also stated that the on-site thermal desorption process was limited in its effectiveness and that petroleum contaminated soil remained in the bottom and sidewalls of the former tank pit. The location of the 1994 work is shown on Figure A-7.

On April 4, 2007, one unregulated, abandoned 600-gallon gasoline UST was removed from the ground at the property (WES, 2007a). The tank was located between building #3 and building #4. Visual observations and field screening results indicated that a minor amount of petroleum product had been released to the soil in that area. Soil and water samples were collected from the tank pit excavation to confirm that the UST had not caused a significant release to soil or groundwater. The soil analytical data met the

appropriate MTCA Method A and Method B cleanup levels for unrestricted land use. The former location of the removed UST is shown on Figure A-7.

A contaminated surface soil removal action was conducted at the property in July, 2007 (WES, 2007c). The contaminated surface soil was located on the western side of the property in an area used as a private boat storage and maintenance yard. Approximately 48 tons of contaminated soil were excavated and shipped off-site to a licensed soil treatment and disposal facility. Clean confirmation soil samples collected after the surface soil excavation activities were completed did not contain concentrations of contaminants above the MTCA Method A target cleanup levels. The location of the surface soil remediation excavations are shown on Figure A-7.

2.4 NATURAL CONDITIONS

Prior to the development of the property, it is assumed that the natural conditions present at the subject property were similar to the conditions present before the development of the neighboring Post Point facility. It is likely that the property was a tidally influenced marsh or upper beach area based on evidence from soil borings drilled at the property.

Based on review of historical documents, it is likely that the natural conditions at the property have been reworked beginning approximately one century ago. The natural conditions at the property were first altered in the late 1800's when the property was developed by the first settlers of the town of Fairhaven. Typical alterations likely consisted of infilling to level areas for building and road construction, and sand and gravel borrowing from topographically elevated sources to fill in low areas.

2.4.1 Physiographic Setting and Topography

The property is located in the northern portion of the Puget Sound Basin. The region is characterized by thick sequences of Pleistocene glacial advance outwash and meltwater deposits that were deposited on a basement of tectonically deformed ancient sedimentary and metamorphic bedrock. The glacial deposits have been reworked by more recent fluvial, lacustrine, and aeolian actions into the landforms present today.

The property is situated at an elevation of approximately 25 feet above mean sea level. In general, the property is level with a small variation in topography of approximately 5 feet. The high point of the property is situated at the southern center of the parcel near monitoring well MW-5. The low point of the property is located near the southwest corner and monitoring well MW-3. The topographic contours of the property are included in Figures A-2 and A-3.

2.4.2 Surface Water and Sediment

The site is located on an upland, and no surface water bodies or sediment deposition areas are located on the site. The beneficial uses and classification of surface waters located in the vicinity of the site are described below.

2.4.2.1 Surface Water Setting

The Post Point Lagoon is located approximately 320 feet west of the site. The northwestern boundary of the lagoon is constrained by a railroad track causeway and the lagoon is connected to Bellingham Bay by a small channel which runs beneath the railroad tracks. The Post Point Lagoon and Bellingham Bay are classified as marine water, and the main beneficial use of each water body is wildlife habitat and recreation. The area is designated as Zone X (areas of minimal flooding) by the National Flood Insurance Rate Program (FEMA, 2004).

2.4.2.2 Site Drainage

Stormwater runoff primarily infiltrates into the ground. Roof top runoff from structures at the property enters property storm drains. It is assumed that the property storm water system ties into the City of Bellingham system near the southwest corner of the property.

2.4.3 Geology

The geology underlying the property has been researched using multiple government publications (U.S. Department of Agriculture [USDA], 1992; WSDNR, 2000; Easterbrook, 1976a, 1976b and 1976c). Site specific information has been collected from soil borings drilled, and test pits excavated, at the property and at the neighboring wastewater treatment plant.

Soils in the area of the subject property are described in the Soil Survey of Whatcom County Area, Washington (USDA, 1992). The soil on the subject property is described as Urban Land with 0 to 3 percent slopes. Urban Land consists of areas covered by streets, parking lots, and other structures that so obscure the soils that identification of the soil series is not feasible.

The bedrock basement beneath the property is the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

Field observations made during the excavation of test pits and drilling of soil borings indicate that the property is underlain by a veneer of Bellingham Glaciomarine Drift of the Everson Interstade which overlies the Chuckanut Formation. The Glaciomarine Drift is overlain in places by several feet of imported fill material, reworked native material, or industrial debris (bricks, glass, or metal waste).

The Bellingham Glaciomarine Drift consists of moderately sorted to unsorted diamicton with lenses and discontinuous beds of moderately to well-sorted gravel, sand, silt, and clay. Bedding is massive to poorly stratified. Color is blue-gray to olive-gray depending on oxidation state. Thickness ranges to as much as 90 meters. The unit is consistently firm to very hard, depending on moisture content. The unit is predominantly dry to slightly moist. The unit acts as an aquitard, impeding vertical migration of contaminants.

In general, the geologic sequence encountered at the subject property consists of:

- 0 to ~1 ft. – Imported Fill. The material consists of brown, coarse sandy gravel to gravelly sand that is typically loose and moist. In places this material may be reworked native GMD. This material is associated with property preparation and ground leveling work done in preparation for building construction.
- 0 to ~8 ft. – Miscellaneous Fill. Miscellaneous fill is consistently encountered on the western edge of the property (the site). It typically consists of what is believed to be discarded waste material from the subject property's historical businesses. Types of material encountered in the unit are bricks, metal shavings, glass, iron rods and broken chain links, old rope, fiberglass matting, construction debris (plywood pieces, cut/trimmed 2x4s, etc), and coarse sands and gravel.
- ~1 to ~12 ft – Bellingham Glaciomarine Drift. The material is described above. Typically, the GMD material encountered at the property was described as dry to moist. It consisted of clayey silt with minor gravel grading downwards to silty sand with gravel.
- ~12 ft and below – Historic tidal marsh and beach deposits. These deposits consist generally of fine to coarse sands with gravel with shell fragments. Peat deposits are typically organically rich silty fine sands and silts.

Three geologic cross-sections showing inferred subsurface conditions at the property were created to help develop the conceptual model. The cross-section locations are shown on Figure A-8.

- Cross-section A-A' (Figure A-9) shows typical subsurface conditions encountered along the northern edge of the subject property. The cross-section shows the miscellaneous fill material and historic tank pit located on the western edge of the property.
- Cross-section B-B' (Figure A-10) generally shows typical subsurface conditions along the western edge of the property. The cross-section shows the variation of the thickness of the miscellaneous fill material.
- Cross-section C-C' (Figure A-11) generally shows typical subsurface conditions along a diagonal line representing the generalized groundwater flow direction. The section line runs from the

lowest groundwater level near monitoring well MW-7 to the highest groundwater level near monitoring well MW-5.

2.4.4 Hydrogeology

The hydrogeology at the subject property has been characterized through the installation of 14 groundwater monitoring wells and 1 piezometer. The monitoring well locations are shown on Figure A-4. The wells were installed to a depth of approximately 15 feet bgs, with the well screens extending from 5 to 15 feet bgs. The wells were screened across the uppermost unconfined aquifer which occurs in the upper weathered portions of the glaciomarine drift and the miscellaneous fill material (where present). The soil borelogs are included in Appendix G and the monitoring well construction diagrams are included in Appendix H.

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor and depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the property. Depth-to-water in the monitoring wells ranges from approximately 1 feet to 10 feet below ground surface. Historical depth-to-water data are summarized in Table B-10.

The data indicate that the groundwater flows in a northwesterly direction. Groundwater surface elevations have historically ranged from approximately 10 to 18 feet above mean sea level in wells located east of the sanitary sewer line shown on Figure A-3. Groundwater surface elevations have historically ranged from approximately 6 to 9 feet above mean sea level in wells located west of the sanitary sewer line shown on Figure A-3. The seasonal groundwater elevation fluctuations are evident on Figure A-12 from 2007 through 2011, when quarterly sampling was being conducted at the site. Groundwater elevations from 2007 through 2011 generally follow the seasonal hydrologic cycle, with lowest elevations occurring in late summer/fall. The seasonal groundwater fluctuations are assumed to still occur but are not as apparent on the chart since monitoring has only been conducted annually at the same time of year since 2014. The groundwater surface contours for each groundwater sampling event are included in Appendix I.

2.4.4.1 Hydraulic Conductivity

Slug tests were conducted on monitoring wells in January 2021 in order to provide an estimate of hydraulic conductivity in the shallow aquifer. The methodology of the testing is described in the *Site Assessment Report* (WES, 2021). Results of the testing indicated that hydraulic conductivity in the wells ranged from 0.01 ft/day to 3.0 ft/day.

2.4.4.2 Area Setting

The hydrogeologic setting of the area is characterized by areas of perched water trapped in coarse miscellaneous fill material located above the relatively impermeable glaciomarine drift and saturated upper portions of the weathered glaciomarine drift. Perched groundwater was encountered in several exploratory trench excavations, predominantly on the west side of the property. It is possible that the groundwater surface is influenced by tidal fluctuations since the property is located within approximately 450 feet of Bellingham Bay.

2.4.4.3 Groundwater Use

No groundwater supply wells are located on the property or within any distance downgradient of the site based on a review of the Ecology Well Log database.

2.5 CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) was developed to show the historic release(s) of hazardous substances at the site and the subsequent migration of those substances in environmental media (Figure A-13). The site is defined by the presence of soil and groundwater contamination associated with the former use of the subject property as a brick manufacturer, a chain and forge facility, and a boat building and maintenance yard. The site is located along the adjoining borders of the 200 and 210 McKenzie Avenue properties. Based on observations made during the environmental investigations, it appears that waste materials from the brick manufacturer and chain and forge facility were dumped into a depression located in that area.

The results of the RI indicate that the COCs at the site are primarily related to the release of petroleum compounds from the former oil storage tanks, the burial of miscellaneous debris (glass/brick/metal) from past industrial uses of the property, and boat maintenance activities. The petroleum compounds released from the oil storage tanks impacted the miscellaneous fill material. Perched water flowing through the petroleum impacted miscellaneous fill material became impacted by dissolved arsenic and dissolved iron.

2.5.1 Soil (Direct Contact) Pathway

During investigations conducted at the site, soil samples were found to contain the following above the screening levels:

- Gasoline Range TPH
- Diesel/Oil Range TPH
- BTEX Constituents: Benzene and xylenes
- Metals: antimony, cadmium, chromium, copper, lead, nickel, zinc
- VOCs: methylene chloride
- SVOCs: Naphthalenes (1-methylnaphthalene, 2-methylnaphthalene, and total naphthalenes), cPAHs

Soil contamination at the site is primarily located on the western portion of Parcel #370202452038 and the eastern portion of Parcel #370211403538. The approximate lateral extent of petroleum impacted soil is shown on Figures A-3 and A-5. Soil contaminant concentration maps are provided in Appendix J.

Impacted soil has been found in five areas at the site (labeled on Figure A-5). Soil impacted with contaminants of concern at concentrations which exceed the screening levels has been found ranging from the surface to 12.5 feet bgs at five locations. Area 1 comprises the majority of the impacted soil and extends to an average depth of 8 feet bgs, equating to approximately 11,547 tons of impacted soil. The assumed average 8-foot depth of contamination for Area 1 is based on laboratory analytical data and visual evidence collected in 2007 during the test pit excavation work (Table B-1 and Appendix F). Areas 2, 3 and 4 extend to approximately 2 feet bgs, equating to approximately 18 tons, 12 tons, and 21 tons of impacted soil (respectively). Area 5 extends to approximately 3 feet bgs, equating to approximately 97

tons of impacted soil. In total, it is estimated that approximately 11,700 tons of impacted soil are located at the site.

The primary potential exposure pathway/receptor for contaminants in the soil is human and/or terrestrial dermal contact or ingestion of soil particulates. Being that the property is primarily capped by gravel or paved surfaces, the most likely exposure scenario would be during site maintenance or construction activities that disturb the existing structures or cap (e.g. soil excavation). There is no indication that soil contamination extends off-property, therefore no complete exposure pathway exists for off-site receptors.

2.5.1.1 Waste Designation

A preliminary waste designation was completed in 2021 for the contaminated soil/landfill waste at the site. The designation indicates that contaminated soil/landfill waste in Area 1 at the site is likely to designate either as WT02 dangerous waste or as non-dangerous waste.

The contaminated soil/landfill waste material from the site was evaluated in two parts. First, the P-1 Composite soil sample collected in 2021 was evaluated individually, and second, all historic soil samples collected from within the known contaminated area (Area 1) were evaluated as a whole. Flowcharts showing the evaluation outcomes are provided in Appendix K.

In both cases, the soil does not classify as hazardous waste under RCRA regulations, for the following reasons:

- P and U codes are not applicable as this is not a spill of an unused product on the P or U lists.
- F and K codes are not applicable mainly because a) the sources and industrial activities specified in the lists do not match identifiable historical activities on the site, and b) the activities occurred before RCRA regulations were enacted so those codes would likely not apply.
- D codes are not applicable because the TCLP (Toxicity Characteristic Leaching Procedure) sample results were all below specified limits.

The samples were evaluated for Washington state-only designations. The state-only toxicity criteria were evaluated by both the "book designation procedure" (WAC 173-303-100(5)(b)) and the bioassay test (WAC 173-303-100(5)(c)). The following assumptions and results were used for the Washington state designation for Area 1 soil:

- For the book designation of toxicity criteria, the detected results of all soil samples from Area 1 were averaged. Non-detects were ignored, biasing the results high. This resulted in a designation as a WT02 dangerous waste. Due to the variability in contaminant concentrations, the book designation was also performed using the maximum detected concentration for each analyte as a 'worst-case scenario' - the soil still designated as WT02.
- Analytical results for pH, Polycyclic Aromatic Hydrocarbons (PAHs), and Halogenated Organic Compounds (HOCs) show that related Washington-only codes are not applicable.
- The WPCB code is not applicable since it only applies in limited circumstances that are not met here.

The same process was followed to evaluate sample P-1 Composite for Washington state designation, and the sample did not designate as state-only dangerous waste.

Per WAC 173-303-100(c) soil sample P-1 Composite was analyzed by bioassay by means of the acute fish toxicity test. The bioassay test results for soil sample P-1 Composite showed that there was no mortality during the test. Based on the results, the P-1 Composite sample does not designate as a state-only dangerous waste for toxicity criteria (see Rainier Lab report in Appendix K).

Per WAC 173-303-100(d), “if the designation acquired from the book designation and bioassay do not agree, then bioassay data will be used to designate a waste.” Both the book designation and the bioassay of soil sample P-1 Composite shows the material does not designate as state-only dangerous waste under the toxicity criteria. No other bioassays were conducted, so it is unknown at this time if other contaminated locations in Area 1 would have been designated as non-dangerous via the acute fish toxicity test.

After completing the preliminary evaluation of both soil sample P-1 Composite and the historic soil samples collected from Area 1, it is likely that soil excavated from the site would be designated either as non-dangerous or as WT02. If soil from a particular area is designated as WT02 from the book designation procedure, then a bioassay could be run to determine if the designation could be reduced to non-dangerous.

2.5.2 Groundwater Pathway

During investigations conducted at the site, groundwater samples were found to contain the following analytes at concentrations above the screening level:

- Diesel/Oil Range TPH
- Metals (dissolved): arsenic and iron

Groundwater contamination appears to have moved in the direction of groundwater flow at the site (generally northwest). The approximate lateral extent of petroleum impacted groundwater is shown on Figure A-6.

One piezometer was installed in the known area of contamination/waste in July 2021. The piezometer was installed to determine if any LNAPL (or "free product") is present on the water table. Monitoring wells previously installed at the site have not shown the presence of LNAPL, however, the water elevation in the wells extends above the wells screens which could impact the ability to observe LNAPL. The piezometer was screened from the bottom of the landfill material to 2 feet below the ground surface. The piezometer was developed on 7/13/21 and checked on 7/21/21, and no free product was observed on either date.

Dissolved arsenic concentration maps are included in Appendix L. Data collected from 2011 through 2020 were contoured to provide a visual depiction of the annual changes in the dissolved arsenic concentrations observed in the monitoring wells. The highest arsenic concentrations appear to be generally correlated with the lowest groundwater surface elevations and the highest groundwater temperatures. Those conditions tend to occur in the late fall which is corroborated in the data set generated to date (Table B-

10). Samples collected in September generally have an increased concentration of arsenic compared to those collected in March. This direct proportionality to temperature agrees with experiments conducted to assess the adsorption and desorption of arsenic from soil particles (Tyrovola and Nikolaidis, 2009).

The wells in which high concentrations of arsenic have been detected tend to have greater negative oxidation/reduction potential (ORP) values (Table B-9). The data generally shows that when the ORP values are increasing (becoming more positive), arsenic values decrease and when ORP values are decreasing (becoming more negative), arsenic concentrations increase. Negative ORP indicates a reducing environment. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release (Welch et. al, 2000).

The highest concentrations of dissolved iron are found in the wells located on the western side of the subject property where the subsurface investigation encountered buried waste debris (Whatcom Environmental, 2007b). Dissolved iron concentration maps for 2011 are included in Appendix M. The detection of dissolved ferrous iron (Fe(II)) in the wells containing high concentrations of total dissolved iron indicates that reduction of ferric iron (Fe(III)) to ferrous iron (Fe(II)) is occurring, potentially resulting in the dissolution of arsenic from the aquifer matrix (Whatcom Environmental, 2011). Dissolved iron and arsenic have also been detected in well MW-6 which is located over 350 feet east of the site. It is believed that the arsenic and iron concentrations detected in well MW-6 are due to reducing conditions resulting from buried naturally occurring organic matter (decomposed wood encountered at 7.5-9 feet bgs in the soil boring).

Aspect Consulting of Seattle, Washington conducted an intensive groundwater investigation of the Lummi Island aquifer and concluded that wells with arsenic concentrations that exceed the EPA NPDWS groundwater quality standard of 10 µg/L were associated with the Padden Member of the Chuckanut Formation (Aspect, 2006). The study found that wells drilled into unconsolidated materials which were located in close proximity to contacts with the Chuckanut Formation were found to have elevated concentrations of arsenic. The Padden Member of the Chuckanut Formation is the geologic unit located adjacent to (uphill) and reportedly beneath the subject property (WDNR, 2000)

The primary potential exposure pathway/receptor for contaminants in the groundwater is human, terrestrial, and/or ecological dermal contact, ingestion, or plant direct uptake of contaminated groundwater. The most likely exposure scenario would be during site maintenance or construction that contacts groundwater. There is currently no use of groundwater on the property for potable purpose nor is there a reasonable likelihood of future use of property groundwater for potable use. Monitoring wells located downgradient of the impacted soil areas have contained constituents of concern at concentrations above the target cleanup levels, indicating there is potential for a groundwater exposure pathway for off-site receptors and discharge to surface water.

2.5.3 Surface Water Pathway

The Post Point lagoon is located approximately 320 feet southwest of the site. The City of Bellingham monitors fecal coliform bacteria levels in the Post Point Lagoon on a monthly basis. No other contaminants of concern have been identified at the Post Point Lagoon.

Regarding the groundwater to surface water pathway, a review of groundwater data collected from the point of compliance wells located downgradient of the site (MW-10, MW-11, and MW-12) indicates that the contaminant plume has been delineated. The data indicate that surface water located downgradient of the point of compliance wells has not been impacted by petroleum constituents including gasoline, diesel, or oil range TPH, BTEX, MTBE, or dissolved mercury, cadmium, chromium, or lead at concentrations exceeding the target CULs. Arsenic and iron have been detected at concentrations exceeding the CUL in MW-11, however, the arsenic concentration contour maps (Appendix L) and the iron concentration contour maps (Appendix M) indicate that the arsenic and iron concentrations decrease west of MW-11 to concentrations below the target CUL. As discussed in Section 2.5.2, reducing conditions can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release. The reducing conditions at the site are presumed to be caused by the biodegradation of the TPH identified in soil at the site. As the groundwater flows to the west-northwest through the site, the groundwater geochemistry changes to a reducing condition resulting in the dissolution of arsenic and iron. As the water leaves the site the oxidation state returns to a more natural condition and the dissolved arsenic/iron drops out of solution.

Reducing conditions at the site are presumably caused by bacterial degradation of the residual petroleum contamination at the site. As the natural biodegradation of the TPH continues, the footprint and concentration of dissolved arsenic/iron are expected to decline with time.

Based on the groundwater data collected at the point of compliance wells, there is no migration of contaminants from groundwater to surface water at the Post Point Lagoon.

2.5.4 Sediment Pathway

There are no sediment deposition areas located at the site. The Post Point Lagoon is located approximately 320 feet west of the site. Sediment sampling was conducted during the Post Point Lagoon Restoration project in 2008. Sediment samples were collected from four locations in the lagoon and analyzed for metals (including arsenic), PAHs, PCBs, and phenols. None of the analytes were detected at concentrations above the sediment management standards Marine Sediment Benthic Criteria.

2.5.5 Vapor Pathway

Not applicable to the site. Soil vapor intrusion may need to be addressed when the site is developed in the future.

2.5.6 Climate Change Resiliency

MTCA requires adequate characterization of cleanup sites, including understanding potential impacts and vulnerabilities associated with climate change. Online models and maps available through the National Oceanic and Atmospheric Administration (NOAA), Federal Emergency Management Agency (FEMA), and Ecology were reviewed. Based on the available maps and known site/area characteristics, the site does not appear to be in an area that may be impacted by sea level rise, landslides/erosion, flooding, or wildfire. Further evaluation of climate change impacts is not necessary at this time.

2.5.7 Likely Vulnerable Populations and Overburdened Communities

Per Ecology Implementation Memo No. 25, the site was evaluated to determine whether the population threatened by a contaminated site includes a likely vulnerable population or overburdened community. The following three testing criteria with the corresponding census tract ranking for the site are included below:

- Environmental Disparities Index (WA Department of Health EHD Map): Ranked 3
- Demographic Index (U.S. EPA EJScreen): Ranked 4th Percentile
- Supplemental Demographic Index (U.S. EPA EJScreen): Ranked 7th Percentile

Based on the criteria outlined in Memo No. 25, all three rankings are below the thresholds, indicating that the potentially exposed populations do not include likely vulnerable populations or overburdened communities.

2.6 CLEANUP STANDARDS

Cleanup levels are based on current and future resource uses and reasonable maximum exposures expected to occur under both current and potential future site use conditions. The site is located at an adjoining border of an industrial property and a public property (used by the Post Point WWTP). As the WWTP expands onto the site, the zoning may change. Therefore, CULs intended for unrestricted land use will be used in this RI/FS rather than industrial CULs.

The soil and groundwater cleanup standards for the site were generally established as the most restrictive applicable cleanup level among those provided in WAC 173-340-740 (Unrestricted Land Use Soil Cleanup Standards), WAC 173-340-900 Table 749-2 (Priority Contaminants of Ecological Concern), WAC 173-340-720 (Ground Water Cleanup Standards), and applicable federal regulations.

It should be noted that MTCA does not necessarily require that soil and groundwater be restored to these levels at a site when values exceed those listed in these standards. The level of restoration depends on the remedy selected under WAC 173-340-350 through 173-340-390.

2.6.1 Terrestrial Ecological Evaluation

In order to confirm the site is not a threat to the terrestrial environment, a terrestrial ecological evaluation (TEE) was conducted in accordance with WAC 173-340-7490. The goal of the TEE is to determine if contaminants remaining onsite pose a threat to ecological receptors (plants and wildlife). The site did not qualify for a primary exclusion (WAC 173-340-7491) because there was more than 1.5 acres of undeveloped land located within 500 feet of the site. A simplified TEE (WAC 173-340-7492) was conducted on the subject property, and it was determined that the site needed no further evaluation since land use at the site makes wildlife exposure unlikely (WAC 173-340-7492(2)(a)(ii)). Documentation related to the TEE decision making process is included in Appendix N.

2.6.2 Soil Cleanup Standards

MTCA Method A and Method B are the two options available for setting cleanup standards for unrestricted land use. These methods are described in WAC 173-340-740. Soil cleanup standards for industrial land use are based on an adult worker exposure scenario. MTCA Method A and Method C are the two options available for setting cleanup standards for industrial land use. These methods are described in WAC 173-340-745.

Target soil CULs for this site are based on MTCA Method A. Method A soil cleanup levels are provided in WAC 173-340, Table 740-1. For contaminants that do not have a Method A CUL, but do have a Method B standard value which is protective of human health, the latter will be set as the target CUL. Table B-11 lists the various soil CULs for contaminants of concern at the site and specifies the target CULs.

Table B-12 lists the potential exposure pathways and points of compliance for each contaminant of concern in the soil. Different cleanup actions will address one or more of these exposure pathways and the target CUL is set for the corresponding point of compliance.

2.6.3 Air Cleanup Standards

Air cleanup standards have not been established for the site, as the vapor pathway is not a concern for the site at this time.

2.6.4 Groundwater Cleanup Standards

Per WAC 173-340-720, groundwater cleanup levels are based on the highest beneficial use and the reasonable maximum exposure expected to occur under current and potential future property use conditions. The site groundwater is not a current or reasonably likely future source of drinking water, however, for purposes of this RI/FS, cleanup levels protective of groundwater as drinking water have been calculated.

Target groundwater CULs for this site are based on MTCA Method A. Method A groundwater cleanup levels are provided in WAC 173-340, Table 720-1. For contaminants that do not have a Method A CUL but do have a Method B standard value which is protective of human health, the latter will be set as the target CUL. Table B-13 lists the various groundwater CULs for contaminants of concern at the site and specifies the target CULs.

The MTCA Method A CUL for arsenic, one of the groundwater contaminants of concern at the site, is 5 µg/L and is based on Washington State background concentrations. By comparison, the maximum contaminant level (MCL) of arsenic set forth in the National Primary Drinking Water Regulations (NPDWRs) is 10 µg/L (40 CFR 141.62) and is intended to be protective of human health.

Dissolved iron is another groundwater contaminant of concern at the site, based on the MTCA Method B standard value of 11,000 µg/L. This value is intended to be protective of human health. There is no MTCA Method A CUL for iron.

The groundwater point of compliance for this RI/FS is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site (WAC 173-340-720(8)). Compliance with groundwater CULs will be determined by sampling the downgradient point-of-compliance wells for the site which include MW-10, MW-11, and MW-12 (Figure A-6).

2.7 DATA GAPS

Three data gaps were revealed during preparation of the Remedial Investigation:

- Subsurface soil conditions have not been investigated beneath/adjacent to the auto shop containing a hydraulic lift in Building #5.
- Subsurface soil conditions have not been delineated at the southwest corner of the site, near the location of boring B-9-20.
- Subsurface soil conditions have been only minimally delineated at the west edge of the site, west of TP-12 and well MW-3.

2.8 KEY FINDINGS OF THE REMEDIAL INVESTIGATION

Based on the RI, COCs are present at concentrations exceeding CULs in soil and groundwater at the site. A summary of the key findings of the RI is presented below.

The nature and extent of contamination is sufficiently defined to develop remedial alternatives. However, further evaluation may be required in some areas to support the final remedial design. The Feasibility Study presented in Section 3.0 presents an evaluation of remedial actions that address impacted media at the site.

2.8.1 Soil

The RI has revealed that soil/miscellaneous fill contamination associated with historical industrial activities is located on the western portion of the subject property and on the adjacent property to the west. The contaminated fill material appears to be located from approximately 3-8 feet bgs over most of the site, below which clean native material is present. Contamination extends to a depth of at least 14 feet in the vicinity of monitoring wells MW-8 and MW-9. Soil sampling has confirmed the presence of TPH, cPAHs, VOCs, SVOCs, and heavy metals at concentrations which exceed the target CULs (Table B-11). The contaminated soil at the site has been designated as either non-hazardous or WT02 according to procedures set forth in WAC 173-303-090.

2.8.2 Groundwater

Fourteen groundwater monitoring wells have been installed on and near the site. Groundwater at the site flows towards the west-northwest (Appendix I). The downgradient point-of-compliance wells for the site include MW-10, MW-11, and MW-12 (Figure A-4). Groundwater monitoring has demonstrated compliance with the MTCA Method A groundwater cleanup levels for all CULs excluding dissolved arsenic and diesel/oil range TPH. The MTCA Method A cleanup level for arsenic is 5 µg/L. Arsenic levels exceeding the MTCA Method A cleanup level have been observed in nine wells (MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, and MW-12) of the 14 wells monitored, with a maximum arsenic concentration of 47 µg/L. The MTCA Method A cleanup level for diesel range TPH is 500 µg/L. Diesel/oil range TPH levels exceeding the MTCA Method A cleanup level have been observed in five wells (MW-2, MW-3, MW-7, MW-8, and MW-9) of the 14 wells monitored, with a maximum diesel/oil range TPH concentration of 3,000 µg/L.

Dissolved iron has been found to exceed the MTCA Method B standard value at the site (Method B is protective of human health only; there is no Method A CUL for iron). The MTCA Method B cleanup level for iron is 11,000 µg/L. Iron levels exceeding the MTCA Method B cleanup level have been observed in eight wells (MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, and MW-11) of the twelve wells monitored with a maximum iron concentration of 45,000 µg/L.

Arsenic and iron have been detected at concentrations exceeding the CUL in MW-11, however the arsenic concentration contour maps (Appendix L) and the iron concentration contour maps (Appendix M) indicate that the arsenic and iron concentrations decrease west of MW-11 to concentrations below the target CUL. Reducing conditions at the site are presumably caused by bacterial degradation of the petroleum contamination at the site. As the natural biodegradation of the TPH continues, the footprint and concentration of dissolved arsenic/iron are expected to decline with time.

Groundwater data collected from the downgradient point-of-compliance wells established for the site (MW-10, MW-11, and MW-12) indicate that the contaminant plume has been delineated. The data indicate that groundwater located downgradient of the point of compliance wells has not been impacted by petroleum constituents including gasoline, diesel, or oil range TPH, BTEX, MTBE, or dissolved mercury, cadmium, chromium, or lead at concentrations exceeding the target CULs.

3. FEASIBILITY STUDY

The purpose of the Feasibility Study (FS) is to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site.

3.1 AREAS AND MEDIA REQUIRING CLEANUP

The site contains soil/miscellaneous fill to a depth of approximately 8 feet bgs, below which clean native material is present. Contamination extends to a depth of at least 14 feet in the vicinity of monitoring wells MW-8 and MW-9. The soil/miscellaneous fill material is varyingly contaminated by gasoline range TPH, diesel range TPH, oil range TPH, benzene, xylenes, methylene chloride, total naphthalenes, cPAHs, antimony, arsenic, cadmium, chromium, copper, lead, and zinc (see Figure A-5) at concentrations which exceed the target soil CULs (Table B-11).

The site groundwater contains diesel/oil range TPH, dissolved arsenic, and dissolved iron at concentrations exceeding the target groundwater CULs (Table B-13). Dissolved arsenic concentration maps are provided in Appendix L and dissolved iron concentration maps are provided in Appendix M. It should be noted that elevated levels of arsenic have been shown to occur in areas under reducing conditions with geology similar to that which underlies and surrounds the site. It is unknown how much of the contamination is from arsenic released from the surrounding native soil and how much is from arsenic-contaminated waste fill material. Reducing conditions at the site are presumably caused by bacterial degradation of the petroleum contamination at the site.

3.2 CLEANUP ACTION OBJECTIVES

Cleanup Action Objectives (CAOs) consist of chemical and medium-specific goals for protecting human health and the environment. The objective of the cleanup action is to eliminate, reduce, or otherwise control, to the extent feasible and practicable, unacceptable risks to human health and the environment posed by hazardous substances in the soil and groundwater in accordance with the MTCA cleanup regulations and other applicable regulatory requirements. The objective of the cleanup action is to mitigate risks associated with each of the following:

- Contact with hazardous substances in the soil (dermal, incidental ingestion, or inhalation) by visitors or workers or other site users;
- Contact with hazardous substances in the soil (dermal, incidental ingestion, or inhalation) by terrestrial wildlife and/or soil biota;
- Contact with hazardous substances in groundwater discharged to surface waters by aquatic organisms;
- Protection of potable drinking water.

3.3 APPLICABLE REGULATORY REQUIREMENTS

In addition to the cleanup standards developed through the MTCA process and presented in Section 2.6, other applicable state and federal laws must be considered. The MTCA rule requires that cleanup standards be "at least as stringent as all state and federal laws". In addition to establishing minimum requirements for cleanup standards, applicable state and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710.

3.3.1 MTCA Requirements

The main law that governs the cleanup of contaminated sites in the state of Washington is MTCA. The MTCA Cleanup Regulation (WAC 173-340) specifies criteria for the evaluation and implementation of a cleanup action, including criteria for developing cleanup standards for soil and groundwater. Section 2.6 presents further discussion on development of cleanup standards. The completion of a RI/FS is required by MTCA before selection of a cleanup action under WAC 173-340-360 through -390, except for emergency or interim actions. The RI/FS process is defined in WAC 173-340-350.

3.3.2 Solid and Hazardous Waste Management

The Hazardous Waste Management Act and the implementing regulation, the Dangerous Waste Regulations (Chapter 173-303 WAC), would apply if dangerous wastes are generated during the cleanup action. Investigations conducted during the RI have shown that the contaminated fill/miscellaneous debris may classify as WT02 dangerous waste or non-hazardous waste (see Section 2.5.1.1). Related regulations include state and federal requirements for solid waste handling and disposal facilities (40 CFR 241, 257; Chapter 173-350 and -351 WAC) and land disposal restrictions (40 CFR 268; WAC 173-303).

3.3.3 State Environmental Policy Act

The State Environmental Policy Act (SEPA) (RCW 43.21C; WAC 197-11) and the SEPA procedures (WAC 173-802) provide a framework for agencies to consider the environmental consequences of a proposal before taking action. SEPA requirements would be reviewed prior to implementation of a cleanup option.

3.3.4 Construction Stormwater General Permit

Construction activities that disturb one or more acres of land are required to comply with construction stormwater regulations. A stormwater pollution prevention plan (SWPPP) or a MTCA construction quality assurance project plan (CQAP) would be required prior to initiation of construction. The plan would document procedures to minimize soil erosion and prevent stormwater pollution through the use of best management practices applied to all disturbed soils, stockpiles, and other materials that may contribute to stormwater pollution. The site is less than one acre in area.

3.4 SCREENING OF CLEANUP ACTION TECHNOLOGIES

This section presents a screening of actions and cleanup technologies to evaluate potential for success at the site. Cleanup technology evaluations are carried out for each impacted environmental media (soil and groundwater) at the site. The final cleanup action alternatives evaluated in Section 3.6 will be comprised of one or more individual cleanup action components.

All cleanup actions must meet the minimum threshold requirements as set forth in WAC 173-340-360(2). Threshold requirements include protection of human health and the environment, compliance with cleanup standards WAC 137-340-700 through 173-340-760, compliance with applicable state and federal laws, and provisions for compliance monitoring. Cleanup action technologies must also be screened for effectiveness, feasibility, and cost.

3.4.1 Soil

Selected actions and soil treatment technologies evaluated include those which have average to above average ratings for soil containing VOCs, SVOCs, fuels, and inorganics as presented in the Treatment Technologies Screening Matrix Table 3-2 (FRTR, 2008). Additional technologies evaluated included institutional controls and the no action alternative. A summary of the soil cleanup screening evaluation is presented in Table B-14.

Screened technologies and actions for soil treatment include:

- No Action
- Monitored Natural Attenuation
- Institutional Controls
- Engineering Controls (Soil Cap)
- Offsite Management (Landfill or Treatment)
- Ex-Situ Soil Washing
- In-Situ Soil Flushing
- In-Situ Thermal Treatment

3.4.1.1 No Action

The no action alternative was screened and does not comply with the minimum threshold requirements as set forth in WAC 173-340-360(2), therefore the no action alternative has been removed from further consideration.

3.4.1.2 Monitored Natural Attenuation

Monitored natural attenuation would involve establishment of an environmental sampling plan to monitor changes in contamination as biological and other chemical processes inherent to the site influence constituents of concern. Natural attenuation of organic contaminants is typically driven through breakdown by microorganisms. Natural attenuation of metals is often driven through sequestering or transformation by the soil matrix or dilution. Demonstration using historical data showing declining contaminant levels in soil or groundwater is needed to predict the success of monitored natural attenuation at any site. Monitored natural attenuation alone is unlikely to meet the cleanup requirements for the site; however, it has been retained for further evaluation as a component of broader cleanup action alternatives.

3.4.1.3 Institutional Controls

Institutional controls include deed restrictions, posted notifications, and access restrictions (fencing, security). While institutional controls cannot eliminate all exposure pathways, they do have the potential to minimize exposure pathways and may be relevant in combination with additional actions, therefore institutional controls has been retained for further evaluation as a component of broader cleanup action alternatives.

3.4.1.4 Engineering Controls (Soil Cap)

The installation of a semi-impervious soil cap made of crushed rock would eliminate soil direct contact exposure pathways. Additionally, the use of a soil cap in combination with other actions would provide the benefit of a useable site within a relatively short timeframe. While a soil cap would not decrease levels of contamination present at the site, it has been retained for further evaluation due to simplicity, economic feasibility and elimination of exposure pathways.

3.4.1.5 Off-Site Management (Off-Site Landfill)

Implementing a soil removal action would involve the use of heavy machinery to physically remove contaminated materials from the site and haul it to an acceptable landfill. All disposal facilities considered

must meet applicable state and federal solid waste handling and disposal facilities requirements (40 CFR 241, 257; Chapter 173-350 and -351 WAC) and land disposal restrictions (40 CFR 268; WAC 173-303). This option may be implemented as a site-wide action or selectively in areas with identified levels of contamination exceeding site cleanup standards ("hot spots"). Under the hot spot removal action there is a risk of re-contamination if any contaminant source material is left in place. The off-site landfill action has been retained for further evaluation.

3.4.1.6 Off-Site Management (Off-Site Treatment)

Implementing a soil removal action would involve the use of heavy machinery to physically remove contaminated materials from the site and haul it to a treatment facility. One off-site management option evaluated was off-site treatment by thermal desorption.

Thermal desorption would require transporting the material to the nearest thermal desorption facility, which is located in Everett, Washington. Due to the high amount of miscellaneous debris contained in the soil at the site, the material is unlikely to be accepted at the facility. Therefore, off-site thermal desorption has been removed from further evaluation.

3.4.1.7 Ex-Situ Soil Washing

An alternative to managing excavated soil at another facility is soil washing. The soil/miscellaneous fill material would be excavated and treated onsite utilizing washing equipment to remove contaminants from the soil by dissolution or suspension into a liquid, possibly utilizing a detergent. The wash water is then further treated or disposed of off-site. Fine particles, which contaminants typically adhere to, are segregated from the bulk soil during washing. These fine materials are then further washed of contaminants or disposed of off-site. Uncontaminated bulk soil/fill material and washed fine particles may be used as backfill material. This system can be used to remove organic and inorganic chemicals from soil; however, material containing both contaminants significantly increases complexity of the required washing system. Soil washing is also not as cost-effective on soils with a large amount of silt or clay or with a small amount of contamination. Demonstrated effectiveness of this technology at the pilot or full scale in the United States is limited. Therefore, soil washing has been removed from further evaluation.

3.4.1.8 In-Situ Soil Flushing

In-situ soil flushing involves injecting clean water into the subsurface environment then removing displaced and contaminated water. Amendments may be added to enhance desorption or solubility. In-situ soil flushing is considered an emerging technology and would require a treatability study to accurately determine the effectiveness of this cleanup action at the site. Due to the complexities associated with multiple contaminants and sources over a large area at the site, in-situ soil flushing has been removed from further consideration as a cleanup action.

3.4.1.9 In-Situ Thermal Treatment

In-situ thermal treatment may involve the utilization of electrical resistance heating, hot air or hot water or steam injection, radio frequency heating, thermal conduction, or vitrification. This type of treatment typically includes a vapor extraction component to control the release of volatilized chemicals. While in-situ thermal treatment can be effective at removing organic chemicals, it does little to remove metals contamination from soil. The success of in-situ thermal treatment in miscellaneous fill material is unproven; therefore, it has been removed from further consideration as a cleanup action.

3.4.2 Groundwater

Selected actions and groundwater treatment technologies evaluated include those which have average to above average ratings for groundwater with inorganics as presented in the Treatment Technologies Screening Matrix Table 3-2 (FRTR, 2008). Additional technologies evaluated included institutional controls and the no action alternative. A summary of the screening evaluation is presented in Table B-15.

Screened technologies and actions for groundwater treatment include:

- No Action
- Monitored Natural Attenuation
- Institutional Controls
- Engineering Controls (Soil Cap)
- Groundwater Removal with Off-Site Treatment and Disposal

- Groundwater Removal, Treatment and Re-injection
- Permeable Reactive Barrier (PRB)
- In-Situ Thermal Treatment
- In-Situ Enhanced Bioremediation

3.4.2.1 No Action

The no action alternative was screened and does not comply with the minimum threshold requirements as set forth in WAC 173-340-360(2), therefore the no action alternative has been removed from further consideration.

3.4.2.2 Monitored Natural Attenuation

Monitored natural attenuation would involve establishment of an environmental sampling plan to monitor changes in contamination as biological and other chemical processes inherent to the site influence constituents of concern. The primary contaminant of concern in groundwater at the site is arsenic. Natural attenuation of metals is often driven through sequestering or transformation by the soil matrix or dilution. The effectiveness of monitored natural attenuation remains unforeseen due to complex subsurface chemistry at the site. Further characterization is required to determine rates and mechanisms of arsenic speciation, immobilization and stability at the site. Demonstration by historical data showing declining contaminant levels in soil or groundwater is needed to predict success of monitored natural attenuation at any site. Monitored natural attenuation alone is unlikely to meet the cleanup requirements for the site; however it has been retained for further evaluation as a component of broader cleanup action alternatives.

3.4.2.3 Institutional Controls

Institutional controls include deed restrictions, posted notifications and access restrictions (fencing, security). While institutional controls cannot eliminate all exposure pathways, they do have the potential to minimize exposure pathways and may be relevant in combination with additional actions.

3.4.2.4 Engineering Controls (Soil Cap)

The installation of a semi-impervious soil cap made of crushed rock would eliminate shallow perched water and soil direct contact exposure pathways. Capping the site would decrease the infiltration of precipitation which may result in changes to the perched water flow direction and gradient. Additionally, the use of a cap in combination with other actions may provide the benefit of a useable site within a relatively short timeframe. While a cap would not decrease levels of contamination present at the site, it has been retained for further evaluation due to simplicity, economic feasibility and elimination of exposure pathways.

3.4.2.5 Off-Site Treatment and Disposal

Groundwater removal with off-site disposal would involve the use of pumps to remove contaminated groundwater from the site which would then be removed from the site for treatment. The proximity of the Post Point Wastewater Treatment Plant may provide a feasible option for water treatment and disposal. However, the treatment plant is not effective at treating dissolved metals contamination, therefore groundwater removal with off-site treatment and disposal has been removed from further consideration.

3.4.2.6 Groundwater Removal, Treatment, and Re-Injection

Groundwater removal, treatment, and re-injection at the property would involve the construction of an on-site water treatment system. Flocculation followed by microfiltration is an effective means to remove metals from water, which may then be re-injected elsewhere at the property. On-site removal, treatment, and re-injection of groundwater has been retained for further evaluation.

3.4.2.7 Permeable Reactive Barrier

A permeable reactive barrier (PRB) is a passive groundwater treatment system used at a wide variety of sites to treat groundwater contamination. A PRB relies upon the movement of groundwater through the installed barrier at which point a chemical reaction or physical barrier prevents the further migration of contamination. The primary contaminant of concern in groundwater at the site is dissolved arsenic. The

use of a permeable reactive barrier composed of zero-valent iron installed in the ground has been shown to be an effective barrier to the migration of dissolved arsenic in groundwater (USEPA, 2008). Several factors may reduce long-term PRB performance, including excessive oxidative corrosion of iron (e.g. in high DO conditions) and excessive carbonate mineral precipitation (e.g. in high pH conditions). A study of the subsurface conditions, including geochemical and hydrogeologic variability and depth-dependent arsenic flux, is necessary before installation of a PRB. Studies have shown that exhausted granular iron material from drinking water treatment systems can be disposed of as a non-hazardous waste in a municipal landfill (USEPA, 2003), so it is possible that laboratory analysis will indicate the same for the exhausted PRB media.

Groundwater monitoring has shown that dissolved arsenic appears to be moving westward via groundwater transport. If selected, a PRB would likely be installed along the west side of the site to a depth below the bottom of the fill material. It is estimated that the PRB trench would be approximately 430 ft. long, 3 ft. wide, and 8 ft. deep (380 cubic yards). The excavated material would be disposed of off-site at a licensed facility as non-hazardous waste. The excavation would be filled with granular zero-valent iron up to the depth of the highest groundwater elevation, and by clean fill material above the water table.

Due to the numerous factors affecting the life-span of the PRB, it is unknown how much time would pass before replacement of the iron granules would be necessary. At one site with a PRB approximately 30 ft. long, 7 ft. wide, and 45 ft. deep (350 cubic yards) it was estimated that less than 10% of the arsenic uptake capacity of the PRB was used after about one year of operation (USEPA, 2008). The level of arsenic contamination around the PRB at that site was significantly higher than at the McKenzie site, being greater than 25,000 µg/L. Previous studies indicate removal capacities on the order of 1 to 10 mg arsenic per gram of granular iron (USEPA, 2008).

Implementation of a PRB at the subject property boundary to prevent off-site migration may be a prudent component of any cleanup action alternative which does not completely remove sources of arsenic contamination. It should be noted that, since the source of the dissolved arsenic at the site is presumed to be primarily naturally occurring mineral oxides in the aquifer matrix, it is possible that arsenic concentrations may rise again if the PRB is removed or not replaced once arsenic breakthrough occurs if

the reducing conditions of the groundwater are not changed (i.e., if the petroleum contamination is not addressed).

3.4.2.8 In-Situ Thermal Treatment

In-situ thermal treatment may involve the utilization of electrical resistance heating, hot air or hot water or steam injection, radio frequency heating, thermal conduction, or vitrification. This type of treatment typically includes a vapor extraction component to control the release of volatilized chemicals. While in-situ thermal treatment can be effective at removing organic chemicals, it does little to remove arsenic from groundwater; therefore, it has been removed from further consideration.

3.4.2.9 In-Situ Enhanced Bioremediation

In-situ enhanced bioremediation involves amending the subsurface environment to increase the biological degradation of contaminants by indigenous and/or introduced microorganisms. Selected solution-based amendments are injected or percolated into the ground. Bioremediation techniques have been used to remediate soils and groundwater contaminated with PAHs, solvents, pesticides, wood preservatives and other organic chemicals. The main advantage of the in-situ process is that soils are not removed during treatment minimizing site disturbance. Limitations of the process include complexities of the soil matrix preventing contaminant-microorganism contact, possible increases in contaminant mobility, preferential flow paths decreasing contact between injected fluids and contaminated zones, possible toxicity of contaminants to microorganisms and slowing of the bioremediation at lower temperatures.

If successful, enhanced bioremediation would reduce concentrations of petroleum contaminants at the site, which would lead to a less reducing groundwater environment, which may result in decreased arsenic dissolution.

Since the site matrix is primarily composed of fill material and debris rather than soil, it is likely that the migration of injected solutions would not be effective enough to make a significant impact on the remediation of petroleum contaminants. Therefore, in-situ enhanced bioremediation is not likely to be

effective at reducing concentrations of organic contaminants at the entire site and has been removed from further evaluation.

3.5 EVALUATION CRITERIA

This section presents the criteria used to evaluate the cleanup action technologies identified in Section 3.4.

3.5.1 General Requirements

All cleanup actions selected through the Feasibility Study process must meet the general requirements set forth in WAC 173-340-360(3)(a)(i)-(x). General requirements include:

- Protection of Human Health and the Environment. The cleanup action selected must protect human health and the environment.
- Compliance with Cleanup Standards. Cleanup standards are set forth in WAC 173-340-700 through 173-340-760 and are also discussed in Section 2.6. For cleanup actions that involve the containment of hazardous substances soil cleanup levels will typically not be met; however, the cleanup action may be determined to comply with cleanup standards provided WAC 173-340-740 is met.
- Compliance with Applicable State and Federal Laws. Applicable state and federal laws include legally applicable requirements and those requirements that the department determines are relevant and appropriate requirements as described in WAC 173-340-710.
- Release and Migration. Cleanup actions shall prevent or minimize present and future releases and migration of hazardous substances in the environment.
- Provide Resilience to Climate Change impacts. Cleanup actions must be evaluated for climate change vulnerability. Climate change vulnerability of the site is discussed in Section 2.5.6.
- Provide for Compliance Monitoring. The cleanup action selected must allow for a compliance monitoring plan as described in WAC 173-340-410 which establishes a) protection monitoring, b) performance monitoring, and c) confirmation monitoring.

- Institutional controls and monitoring. Cleanup actions should not rely primarily on institutional controls and monitoring at a site, or portion of a site, if it is technically possible to implement a more permanent cleanup action.
- Dilution and Dispersion. Cleanup actions should not rely primarily on dilution and dispersion unless the costs of an active remedial measure over the cost of dilution/dispersion grossly exceed the degree of benefit of the active remedial measure.
- Provide for a reasonable restoration timeframe. The determination of a reasonable time frame is set forth in WAC 173-340-360(4). To determine whether a cleanup action provides for a reasonable restoration time frame, the factors to be considered include the following:
    - Potential risks posed by the site to human health and the environment;
    - Practicability of achieving a shorter restoration time frame;
    - Current use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;
    - Potential future use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;
    - Availability of alternative water supplies;
    - Likely effectiveness and reliability of institutional controls;
    - Ability to control and monitor migration of hazardous substances from the site;
    - Toxicity of the hazardous substances at the site; and
    - Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the site or under similar site conditions
- Use permanent solutions to the maximum extent practicable. The determination of the maximum extent practicable is set forth in WAC 173-340-360(5).

3.5.2 Action-Specific Requirements

Action-specific requirements are outlined in WAC 173-340-360(3)(b). Action-specific requirements include use of remediation levels and institutional controls and provide for financial assurances and periodic reviews.

3.5.3 Media-Specific Requirements

Media-specific requirements are outlined in WAC 173-340-360(3)(c). Media-specific requirements are provided for soil cleanup actions, permanent groundwater cleanup actions, and nonpermanent groundwater cleanup actions.

3.5.4 Public Concerns and Tribal Rights and Interests

Ecology-conducted or Ecology-supervised remedial actions must consider (1) public concerns, including concerns of likely vulnerable populations and overburdened communities (WAC 173-340-600 (13 & 14)), and (2) Indian tribes' rights and interests (WAC 173-340-620).

3.5.5 MTCA Disproportionate Cost Analysis

The MTCA Feasibility Study utilizes a disproportionate cost analysis (DCA) (WAC 174-340-360(5)) to quantify the degree to which each cleanup action alternative meets the specified evaluation criteria and compares the benefits to the cost of each alternative. Costs are considered disproportionate to benefits if the incremental increase in cost exceeds the incremental increase in benefits when compared to a lower cost alternative. Sections 3.5.5.1 through 3.5.5.6 describe the specified evaluation criteria used in a DCA.

3.5.5.1 Protectiveness

The degree to which the alternative protects human health and the environment, including likely vulnerable populations and overburdened communities. When assessing protectiveness, consider at least the following: (A) The degree to which the alternative reduces existing risks; (B) The time required for the alternative to reduce risks at the site and attain cleanup standards; (C) The on-site and offsite risks remaining after implementing the alternative; and (D) Improvement of the overall environmental quality.

3.5.5.2 Permanence

The degree to which the alternative permanently reduces the toxicity, mobility, or mass of hazardous substances, including: (A) The adequacy of the alternative in destroying the hazardous substances; (B) The

reduction or elimination of hazardous substance releases and sources of releases; (C) The degree of irreversibility of waste treatment process; and (D) The characteristics and quantity of treatment residuals generated.

3.5.5.3 Long-Term Effectiveness

The degree to which the alternative is likely to be effective over the long term, including for likely vulnerable populations and overburdened communities. When assessing the long-term effectiveness of the alternative, consider at least the following: (I) The degree of certainty that the alternative will be successful; (II) The reliability of the alternative during the period of time hazardous substances are expected to remain on-site at concentrations that exceed cleanup levels; (III) The resilience of the alternative to climate change impacts; (IV) The magnitude of residual risk with the alternative in place; and (V) The effectiveness of controls required to manage treatment residues or remaining wastes.

Except as provided for sediment sites and cleanup units in WAC 173-204-570(4), when assessing the relative degree of long-term effectiveness of cleanup action components, the following types of components may be used as a guide, in descending order: (I) Reuse or recycling; (II) Destruction or detoxification; (III) Immobilization or solidification; (IV) On-site or offsite disposal in an engineered, lined and monitored facility; (V) On-site isolation or containment with attendant engineering controls; and (VI) Institutional controls and monitoring.

3.5.5.4 Management of Implementation Risks

The risks to human health and the environment, including likely vulnerable populations and overburdened communities, associated with the alternative during construction and implementation, and the effectiveness of the alternative to manage such risks.

3.5.5.5 Technical and Administrative Implementability

The ability to implement the alternative, including consideration of: (A) The technical difficulty of designing, constructing, and otherwise implementing the alternative in a reliable and effective manner,

regardless of cost; (B) The availability of necessary offsite facilities, services, and materials; (C) Administrative and regulatory requirements; (D) Scheduling, size, and complexity; (E) Monitoring requirements; (F) Access for construction operations and monitoring; and (G) Integration with existing facility operations and other current or potential remedial actions.

3.5.5.6 Cost

The costs of remedial actions necessary to implement the alternative, including: (A) Construction costs, such as preconstruction engineering design and permitting, physical construction (including labor, equipment, materials, and contingencies), waste management and disposal, compliance monitoring during construction (including sampling and analysis), construction management, establishment of institutional controls, regulatory oversight, and quality assurance and quality control; and (B) Postconstruction costs, such as operation and maintenance activities necessary to maintain the effectiveness of a constructed cleanup action component, waste management and disposal, replacement or repair of equipment (including labor, equipment, and materials), permit renewal, compliance monitoring (including sampling and analysis), maintaining institutional controls, financial assurances, periodic reviews, postconstruction management, and regulatory oversight.

Estimate the design life of cleanup action components, including engineered controls. If the period of time in which a component is needed exceeds the design life of the component, include the cost of replacing or repairing the component in the cost estimate.

Discount postconstruction costs using present worth analysis doing the following: (1) Estimate future costs using constant-year dollars; and (2) Discount future costs using the current U.S. Treasury real interest rate for bonds of comparable maturity to the period of analysis. If project costs exceed 30 years, use the current U.S. Treasury 30-year real interest rate.

The cost estimate calculations for each evaluated Alternative are included in Appendix O.

3.6 DESCRIPTION OF ALTERNATIVES

As per the MTCA regulation, all Feasibility Studies must include at least one permanent cleanup action alternative unless a permanent cleanup action is not technically possible, or the cost identified in the initial screening process is so clearly disproportionate that a more detailed analysis is not necessary. See Table B-16 for a detailed comparison of each alternative action.

3.6.1 Alternative No. 1: Complete Soil Excavation with Off-Site Disposal (Permanent Action)

The most permanent solution to remediate the site would be to excavate all of the contaminated material and transport it to a licensed disposal facility. It is estimated that approximately 7,800 cubic yards of contaminated material would be removed under this alternative (based on the assumption that the site area is approximately 27,000 square feet by 8 feet deep). This action is the most protective of human health and the environment at the site, since no residual contamination from the fill material would remain onsite. However, since the contamination is not treated, the risk is transferred to a different facility (one which is designed to reduce the impact of the landfilled materials).

It is unknown what effect Alternative No. 1 will have on the concentrations of dissolved arsenic in the groundwater, but it is probable that removal of the petroleum contaminated fill would decrease the dissolution of arsenic at the site by removing the cause of the reducing environment.

This alternative would address all anticipated exposure pathways (direct contact by humans, exposure to ecological receptors, and migration to groundwater). Meeting the target CULs would constitute the most protective and permanent cleanup of the site and would allow for any type of future development without restriction.

3.6.1.1 Cleanup Cost Estimate

The total estimated cost of this alternative is approximately $3.56 million (Table B-16). Approximately $1.8 million would be required for excavation and disposal (assuming soil is hazardous waste), $468,000 for backfill, $307,000 for confirmational soil sampling and groundwater monitoring, $55,000 for waste designation (which could lower the cost of soil disposal), $50,000 for engineering design, $2,500 for a fill

and grade permit, $10,000 for a SEPA assessment, $10,000 for preparation of a stormwater construction SWPPP and stormwater monitoring, $10,000 for site prep/initial well abandonment, $250,000 for dewatering/water disposal, and $50,000 for site closure/final well abandonment.

3.6.1.2 Restoration Time Frame

It is estimated that permitting for Alternative No. 1 would require up to 6 months to complete (SEPA/Fill and Grade/Construction SWPPP etc.). It is estimated that the site could be excavated in approximately 60 days, and backfilled in approximately 60 days.

3.6.1.3 Monitoring

Soil samples would be collected during excavation activities to confirm cleanup to appropriate levels before backfilling. Groundwater monitoring would be conducted for at least two years to monitor the effect on arsenic levels.

3.6.2 Alternative No. 2: Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Controls and Natural Attenuation

Under this alternative, the most contaminated soil/fill material would be excavated from the site and shipped to a licensed disposal facility. For the purposes of this Feasibility Study, we have assumed that approximately 1/2 of the site would be excavated under Alternative No. 2 (4,386 cubic yards). Clean soil would be used to backfill the excavation. Remaining petroleum-related contamination would be allowed to naturally attenuate.

A PRB would be installed along the western edge of the fill material to prevent dissolved arsenic in groundwater at the site from migrating off-site. It is estimated that approximately 380 cubic yards of contaminated material would be removed during the installation of the PRB. Installation of the PRB would likely require installation of sheet piling on both sides of the trench, installation of the zero-valent iron, and removal of the sheet piling. A geotechnical study would be required and the PRB would be designed by a licensed engineer.

It is unknown what effect the partial removal of fill material will have on the levels of dissolved arsenic in the groundwater, but it is possible that removal of largest sources of the petroleum contamination would decrease the dissolution of arsenic at the site by remediating heavily contaminated areas that are the biggest contributors to the reducing environment. The PRB would remain in place to prevent dissolved arsenic migration and would be maintained until the target CUL is reached on-site.

Since contaminated material would remain above target CULs, institutional controls such as fencing, deed restrictions limiting property use to industrial applications and limiting soil-disturbing activities while contamination still exists, and maintenance of the PRB and monitoring well system would be required.

3.6.2.1 Cleanup Cost Estimate

The total estimated cost of this alternative is approximately $5 million. Approximately $987,000 would be required for excavation and disposal (assuming soil is hazardous waste), $263,000 for backfill, $357,000 for confirmational soil sampling and groundwater monitoring, $38,000 for waste designation (which could lower the cost of soil disposal), $50,000 for engineering design, $2,500 for a fill and grade permit, $10,000 for a SEPA assessment, $10,000 for preparation of a stormwater construction SWPPP and stormwater monitoring, $2,284,000 for installation of the PRB, $7,500 for institutional controls, $10,000 for site prep/initial well abandonment, $100,000 for dewatering/water disposal, and $50,000 for site closure/final well abandonment.

3.6.2.2 Restoration Time Frame

It is estimated that permitting for Alternative No. 2 would require up to 6 months to complete (SEPA/Fill and Grade/Construction SWPPP etc.). It is estimated that the site could be excavated in approximately 20 days, and backfilled in approximately 20 days. It is estimated that the PRB construction would require 40 days.

The time necessary to reduce dissolved arsenic concentrations at the site to below the target CUL is unknown due to the number of factors affecting the dissolution of arsenic. It is also unknown how long it would take for natural attenuation to reduce remaining soil contaminant concentrations to target CULs.

3.6.2.3 Monitoring

Soil samples would be collected during excavation activities to document concentrations remaining at the site prior to backfilling.

Groundwater monitoring would be conducted west of the site to monitor arsenic levels to determine when the PRB needs replacing, as well as on the site to determine how the removal of the petroleum contaminated material affects the reducing groundwater conditions and to determine if dissolved arsenic concentrations eventually meet the target CUL and allow for the removal of the PRB.

Exhausted PRB material would need to be analyzed for hazardous characteristics prior to disposal to determine if the material qualifies as a non-hazardous waste.

3.6.3 Alternative No. 3: Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation

As with Alternative 2, under this alternative, the most contaminated soil/fill material would be excavated from the site and shipped to a licensed disposal facility. For purposes of this Feasibility Study, we have assumed that approximately 1/2 of the site would be excavated under Alternative No. 2 (4,004 cubic yards). Clean soil would be used to backfill the excavation. Under Alternative No. 3, the remaining contaminated soil/fill material will be capped in place and allowed to naturally attenuate.
It is unknown what effect the partial removal of fill material will have on the levels of dissolved arsenic in the groundwater, but it is probable that removal of a portion of the petroleum contamination would decrease the dissolution of arsenic at the site by removing areas that are contributors to the reducing environment. At the completion of the excavation an impermeable asphalt cap would be installed at the site to minimize infiltration of precipitation and prevent direct contact with contamination by humans and wildlife. A stormwater system would be installed to handle stormwater drainage off of the impermeable cap (per Bellingham Municipal Code 15.42.060).

Since contaminated material would remain above target CULs, institutional controls such as deed restrictions limiting property use to industrial applications and limiting soil-disturbing activities while

contamination still exists, and maintenance of the soil cap, stormwater system, and monitoring well system would be required.

3.6.3.1 Cleanup Cost Estimate

The total estimated cost of this alternative is approximately $2.5 million. Approximately $901,000 would be required for excavation and disposal (assuming soil is hazardous waste), $240,000 for backfill, $556,000 for confirmational soil sampling and groundwater monitoring, $38,000 for waste designation (which could lower the cost of soil disposal), $50,000 for engineering design, $2,500 for a fill and grade permit, $10,000 for a SEPA assessment, $90,000 for preparation of a stormwater construction SWPPP and construction of a stormwater control facility, $64,000 for installation of the asphalt cap, $5,000 for cap maintenance, $7,500 for institutional controls, $10,000 for site prep/initial well abandonment, $100,000 for dewatering/water disposal, and $50,000 for site closure/final well abandonment.

3.6.3.2 Restoration Time Frame

It is estimated that permitting for Alternative No. 2 would require up to 6 months to complete (SEPA/Fill and Grade/Construction SWPPP etc.). It is estimated that the site could be excavated in approximately 20 days and backfilled in approximately 20 days. It is estimated that the PRB construction would require 40 days.

The time necessary to reduce dissolved arsenic concentrations at the site to below the target CUL is unknown due to the number of factors affecting the dissolution of arsenic. It is also unknown how long it would take for natural attenuation to reduce remaining soil contaminant concentrations to target CULs.

3.6.3.3 Monitoring

Soil samples would be collected during excavation activities to document concentrations remaining at the site prior to backfilling.

Groundwater samples would be collected annually to monitor the natural attenuation of residual contaminants. Number of years

3.6.4 Alternative No. 4: Soil Capping and PRB with Institutional Controls and Natural Attenuation

Under Alternative No. 4, an impermeable asphalt cap would be installed at the site to minimize infiltration of precipitation and prevent direct contact with contamination by humans and wildlife. A stormwater system would be installed to handle stormwater drainage off of the impermeable cap (per Bellingham Municipal Code 15.42.060).

A PRB would be installed along the western edge of the fill material to prevent dissolved arsenic from migrating off-site. It is estimated that approximately 380 cubic yards of contaminated material would be removed during the installation of the PRB. This would be disposed of at a licensed facility. Petroleum-related contamination would be allowed to naturally attenuate. Installation of the PRB would likely require installation of sheet piling on both sides of the trench, installation of the zero-valent iron, and removal of the sheet piling. A geotechnical study would be required and the PRB would be designed by a licensed engineer.

Since contaminated material would remain above target CULs, institutional controls such as fencing, deed restrictions limiting property use to industrial applications and limiting soil-disturbing activities while contamination still exists, and maintenance of the PRB and monitoring well system would be required.

3.6.4.1 Cleanup Cost Estimate

The total estimated cost of this alternative is approximately $3.7 million. Approximately $86,000 would be required for excavation and disposal (assuming soil is hazardous waste), $23,000 for backfill, $273,000 for confirmational soil sampling and groundwater monitoring, $10,000 for waste designation (which could lower the cost of soil disposal), $50,000 for engineering design, $2,500 for a fill and grade permit, $10,000 for a SEPA assessment, $90,000 for preparation of a stormwater construction SWPPP and construction of a stormwater control facility, $2,077,000 for installation of the PRB, $135,000 for installation of the asphalt cap, $7,500 for institutional controls, $10,000 for site prep/initial well abandonment, $100,000 for dewatering/water disposal, and $50,000 for site closure/final well abandonment.

3.6.4.2 Restoration Time Frame

It is estimated that permitting for Alternative No. 4 would require up to 6 months to complete (SEPA/Fill and Grade/Construction SWPPP etc.). It is estimated that the cap construction would require 20 days and that the PRB construction would require 40 days.

The time necessary to reduce dissolved arsenic concentrations at the site to below the target CUL is unknown due to the number of factors affecting the dissolution of arsenic. It is also unknown how long it would take for natural attenuation to reduce remaining soil contaminant concentrations to target CULs.

3.6.4.3 Monitoring

Groundwater monitoring would be conducted west of the site to monitor arsenic levels to determine when the PRB needs replacing. Exhausted PRB material would need to be analyzed for hazardous characteristics prior to disposal to determine if the material qualifies as a non-hazardous waste. Additionally, the natural attenuation of petroleum-related groundwater contaminants would be monitored.

3.7 DISPROPORTIONATE COST ANALYSIS

A Disproportionate Cost Analysis (DCA) was conducted as part of this Feasibility Study and is included as Table B-17. The Alternatives were ranked using a quantitative analysis. Each evaluation criteria was assigned a ranking from 0 to 3, with 0 being the lowest ranking and 3 being the best ranking. The evaluation criteria were weighted per the Ecology guidance. The weighting factors and evaluation criteria rankings for each Alternative are shown in Table B-17.

Alternative #1 scored a 2.5, and the ratio of cleanup effectiveness to cost is 0.70. Alternative #2 scored a 1.7 with a cleanup effectiveness to cost ratio of 0.34. Alternative #3 scored a 1.5 with a cleanup effectiveness to cost ratio of 0.60. Alternative #4 scored a 1.4 with a cleanup effectiveness to cost ratio of 0.38. The ratios indicate that Alternative #1 has the greatest benefit-to-cost ratio.

3.8 SELECTION OF PREFFERED ALTERNATIVE

Cleanup Alternative #1 is the recommended alternative for the site. Alternative #1 is the most permanent solution to remediate the site as all contaminated material would be removed and transported to a licensed disposal facility. It is estimated that approximately 7,800 cubic yards of contaminated material would be removed under this alternative (based on the assumption that the site area is approximately 27,000 square feet by 8 feet deep). This action is the most protective of human health and the environment at the site, since no residual contamination from the fill material would remain onsite.

It is unknown what effect Alternative No. 1 will have on the concentrations of dissolved arsenic in the groundwater, but it is probable that removal of the petroleum contaminated fill would decrease the dissolution of arsenic at the site by removing the cause of the reducing environment.

This alternative would address all anticipated exposure pathways (direct contact by humans, exposure to ecological receptors, and migration to groundwater). Meeting the target CULs would constitute the most protective and permanent cleanup of the site and would allow for any type of future development without restriction.

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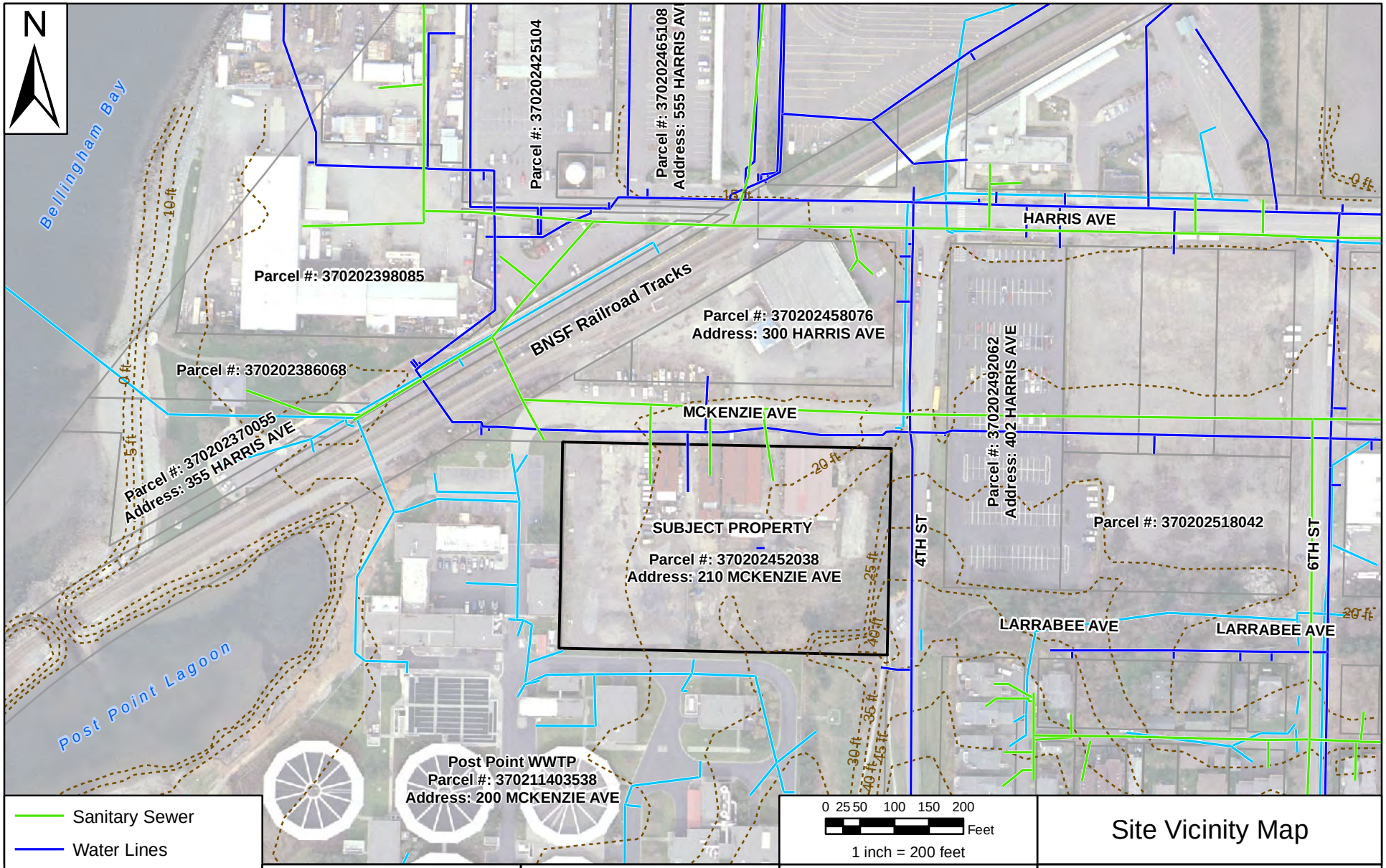
Prepared for:	Prepared by:	Site Location Map	
City of Bellingham	ALL4	210 McKenzie Ave 02/26/24	Figure A-1



Site Vicinity Map

All data are approximate and should be used for relative location reference only.

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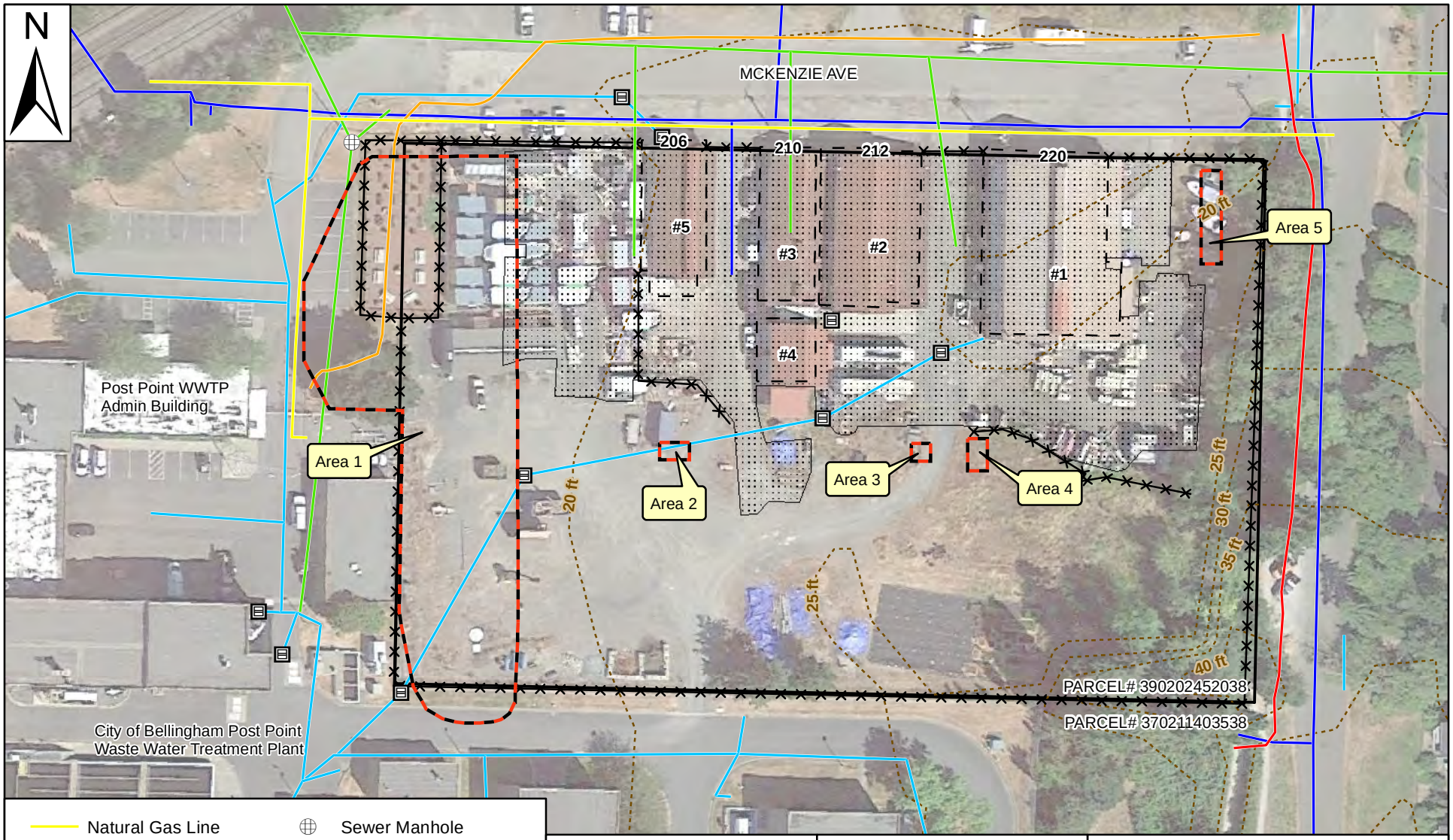
Prepared by: ALL4

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-2



All data are approximate and should be used for relative location reference only. 2020 aerial photograph (GoogleEarth).

0 20 40 80 Feet

1 inch = 80 feet

Site Map

Prepared for: City of Bellingham

Prepared by: ALL4

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-3

1989 Soil Borings
1989 Test Pit
2007 Surface Soil Sample
2020 Test Pit Locations
2020 Soil Boring Locations
Existing Monitoring Well
Inaccessible Monitoring Well
Surface Remedial Excavations
2007 Test Trenches
2012 Test Pit Locations
Remaining Impacted Areas (Soil)
Fenceline

0 25 50 75 Feet
1 inch = 50 feet

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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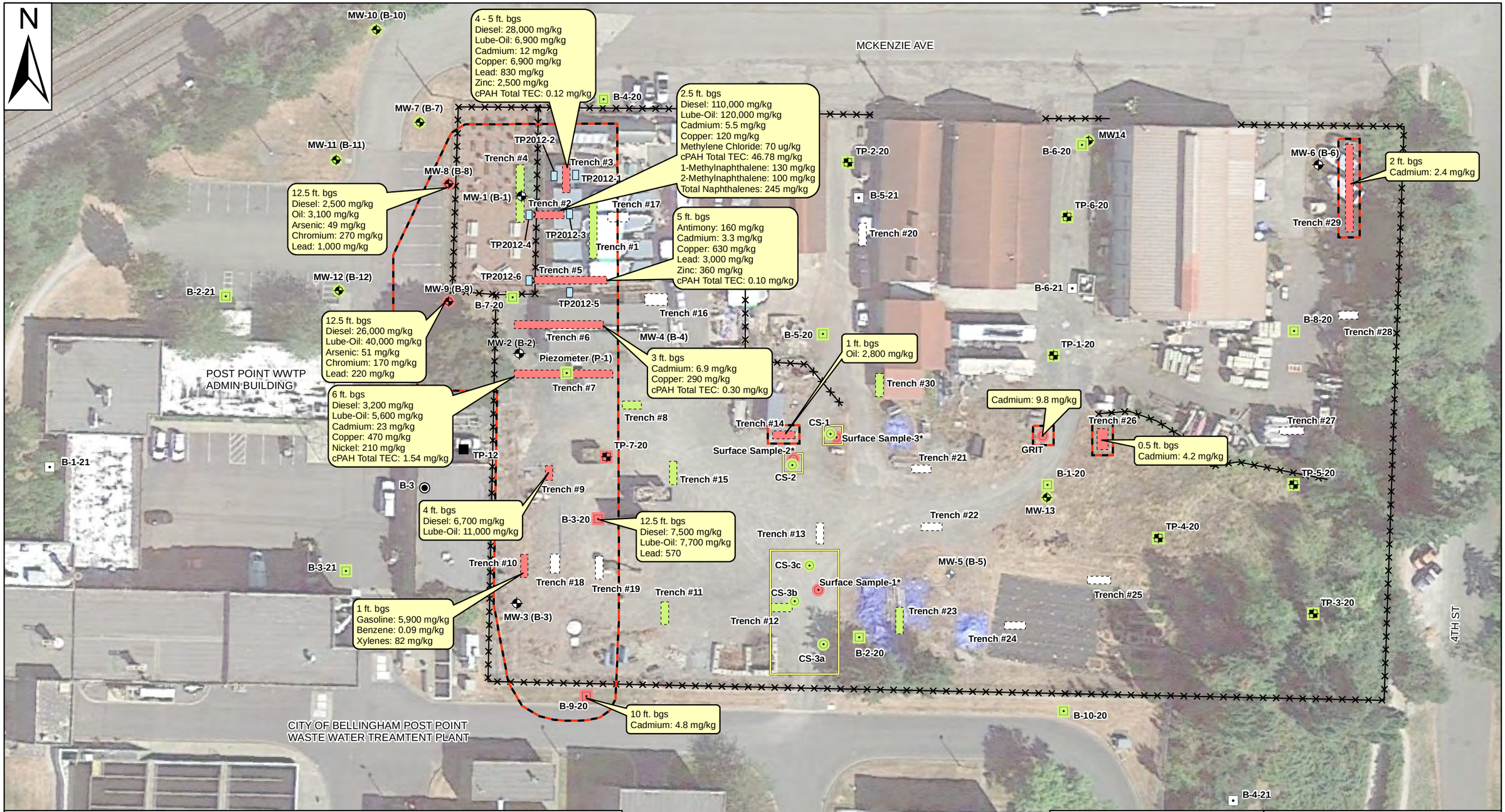
Prepared by: ALL4

Investigation Location Map

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave
02/26/24

Figure A-4



All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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City of Bellingham

Prepared by:

ALL4

Soil Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-5

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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ALL4

Historical Groundwater Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-6

0 25 50 75 Feet

1 inch = 50 feet

Interim Action Location Map

Remaining Impacted Areas (Soil)

Surface Remedial Excavations

Historic Remedial Excavation

Historic Oil Tanks

Historic Structures

Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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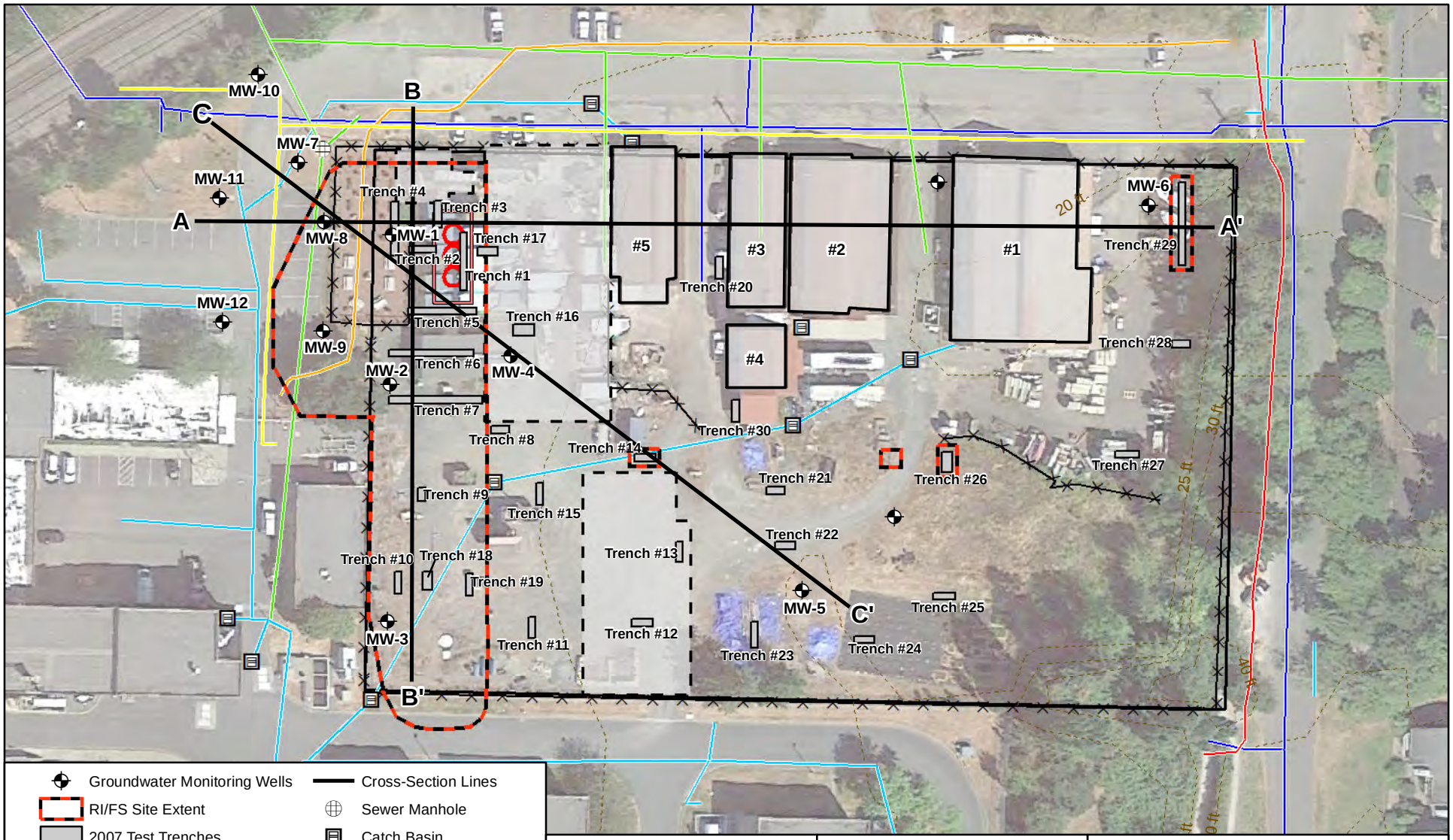
210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-7



All data are approximate and should be used for relative location reference only.

0 20 40 80 Feet

1 inch = 80 feet

Cross Section Location Map

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City of Bellingham

Prepared by:

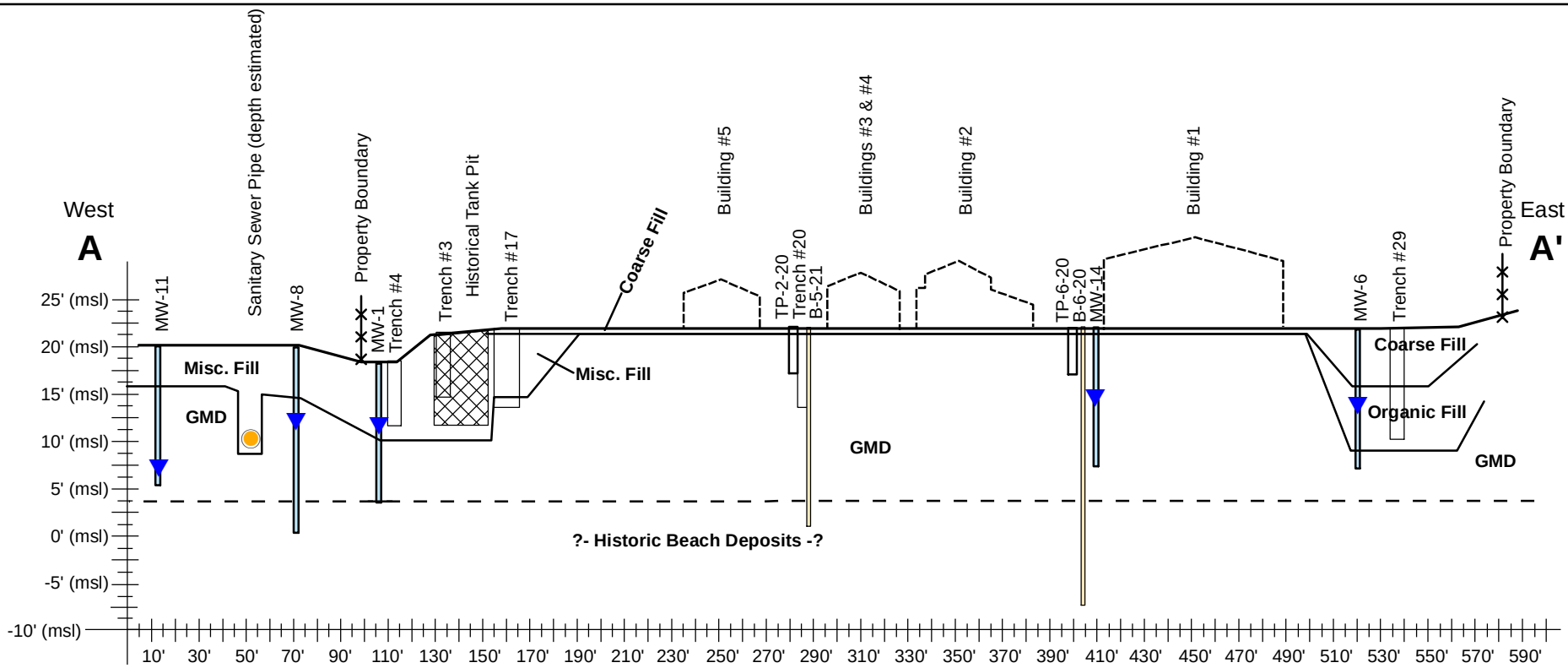
ALL4

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-8



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 9/6/2023

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

Coarse Fill - Generally consists of coarse sandy gravel material used to grade the site.

Organic Fill - Highly organic debris that does not appear to be native subsurface material.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 35 70 Feet

1 inch = 70 feet

Cross-Section A-A'

All data are approximate and should be used for relative location reference only.

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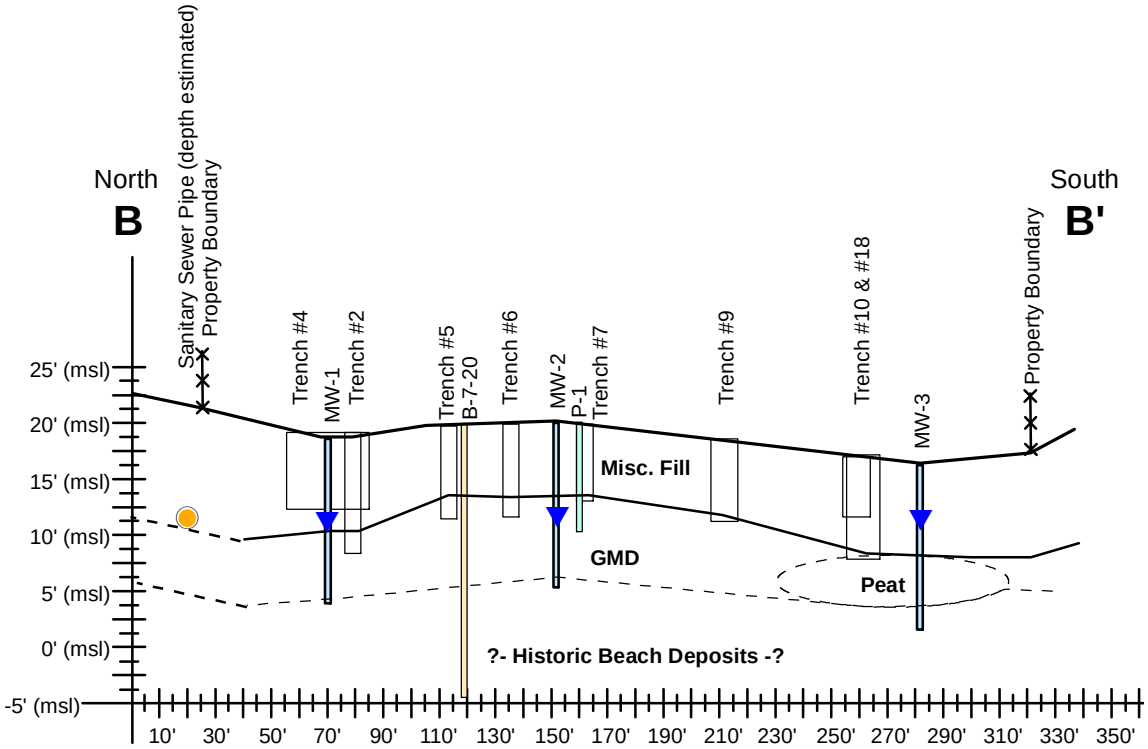
210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-9



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 9/6/2023

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Peat - Highly organic and sticky silts and silty fine sands.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 35 70 Feet

1 inch = 70 feet

Cross-Section B-B'

All data are approximate and should be used for relative location reference only.

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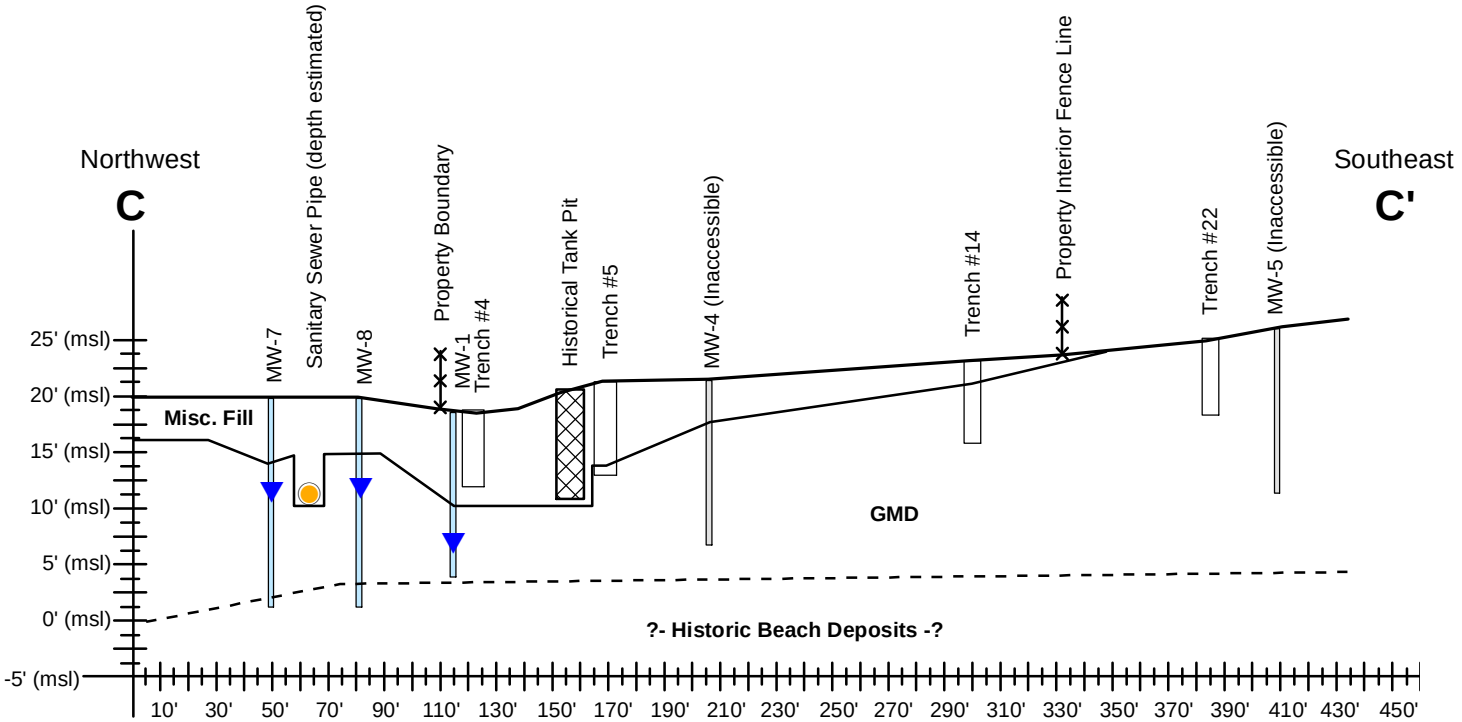
210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie Ave

02/26/24

Figure A-10



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 9/6/2023

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 35 70 Feet

1 inch = 70 feet

Cross-Section C-C'

All data are approximate and should be used for relative location reference only.

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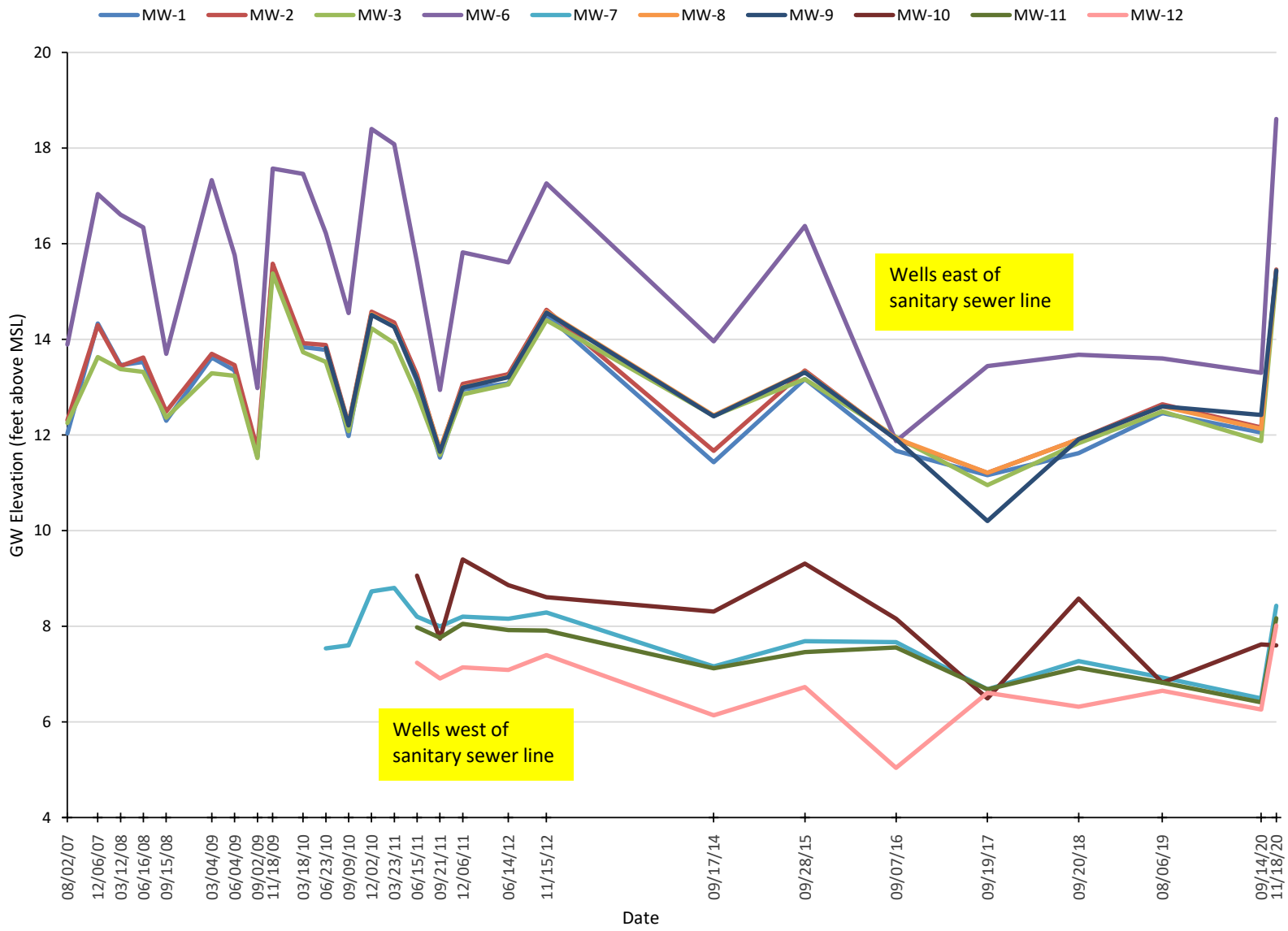
210 McKenzie Avenue
Bellingham, WA 98225

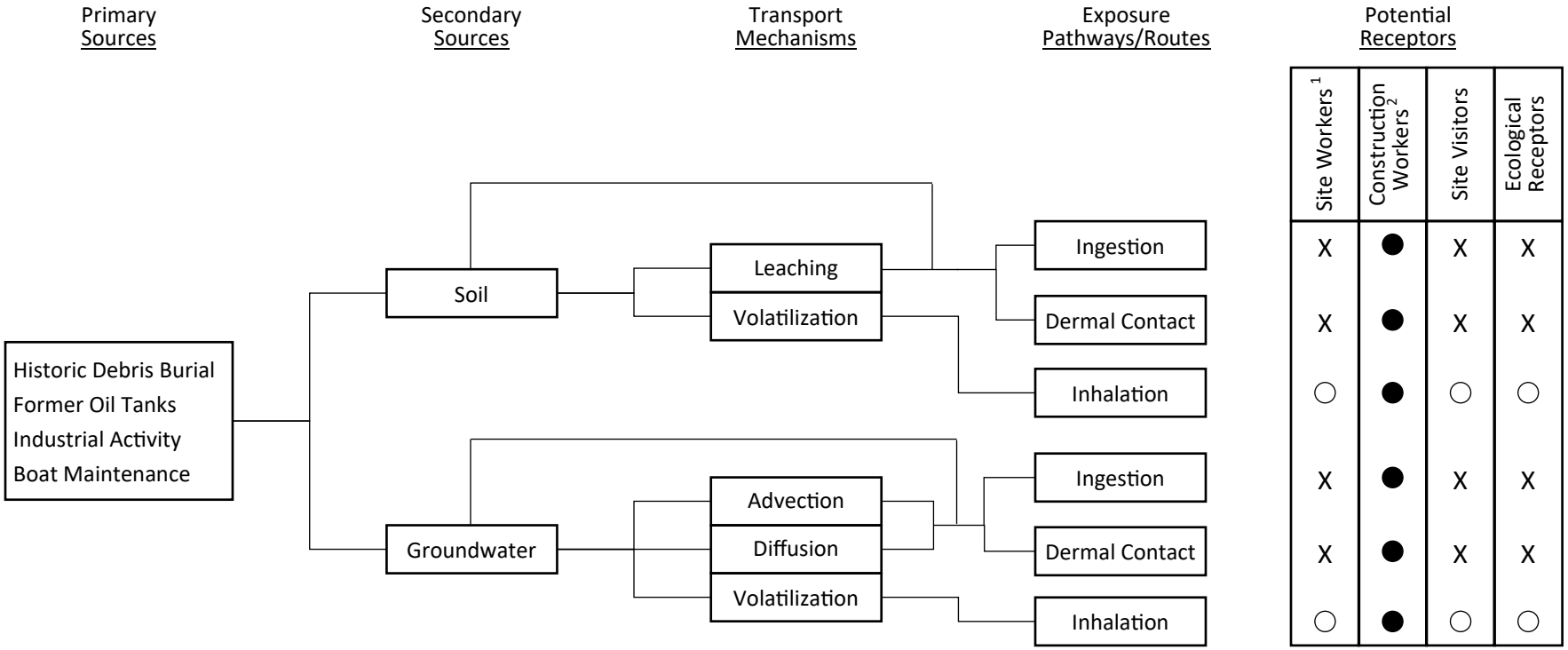
210 McKenzie Ave

02/26/24

Figure A-11



	Prepared for: City of Bellingham	Prepared by: ALL4	Groundwater Elevation vs Time
			Post Point Biosolids
			10/04/21
			Figure A-12



Conceptual Site Model

LEGEND:

- ● Current Complete Pathway
- ○ Potential Pathway
- X Incomplete Pathway

NOTES:

1 - Employees

2 - Construction Workers performing invasive activities.

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Prepared by: ALL4

210 McKenzie Avenue, Bellingham, WA 98225

Post Point Biosolids

010/04/21

Figure A-13

APPENDIX B
TABLES

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Table B-1
2007 Trench Soil Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Sample ID	Date	Gasoline Range NWTPH-Gx (mg/kg)	Diesel Range NWTPH-Dx (mg/kg)	Lube Oil Range NWTPH-Dx (mg/kg)	Benzene EPA-8021 (mg/kg)	Toluene EPA-8021 (mg/kg)	Ethylbenzene EPA-8021 (mg/kg)	Xylenes EPA-8021 (mg/kg)	MTBE EPA-8021 (mg/kg)
Target CUL		100/30[(a)]	2,000	2,000	0.03	7	6	9	0.1
Trench 1 - 6 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 2.5 ft	4/17/07	ND(<3)	**110,000**	**120,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 11 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 3 - 5 ft	4/17/07	ND(<30)	**28,000**	**6,900**	ND(<0.3)	ND(<0.5)	ND(<0.5)	ND(<2.0)	ND(<1.0)
Trench 3 - 4 ft	4/17/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 4.5 ft - S	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 6 ft - N	4/18/07	ND(<3)	350	260	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 5 - 5 ft	4/18/07	ND(<3)	ND(<45)	110	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 6 - 8 ft	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 7 - 6 ft	4/19/07	ND(<3)	**3,200**	**5,600**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 8 - 8.5 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 9 - 4 ft	4/19/07	ND(<3)	**6,700**	**11,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 10 - 1 ft	4/19/07	**5,900**	ND(<100)	ND(<50)	**0.09**	0.76	4.3	**82**	ND(<0.1)
Trench 10 - 7 ft	4/19/07	14	900	600	ND(<0.03)	0.08	ND(<0.05)	0.6	ND(<0.1)
Trench 11 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 12 - 1 ft	4/19/07	ND(<3)	25	100	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 1	4/19/07	4	ND(<25)	90	ND(<0.03)	ND(<0.05)	ND(<0.05)	0.19	ND(<0.1)
Trench 14 - 1 ft	4/19/07	22	1,500	**2,800**	**0.03**	0.5	0.4	5.5	ND(<0.1)
Trench 15 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 23 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	430	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 2	4/23/07	ND(<30)	**10,000**	ND(<500)	ND(<0.3)	ND(<0.5)	ND(<0.5)	2.9	ND(<10)
Surface Sample 3	4/23/07	ND(6)	ND(<380)	**24,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 26 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 2 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 8 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 30 - 1 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)

[(a)] Cleanup level dependent on benzene concentration.

[(b)] Bold indicates concentration exceeded MTCA Method A cleanup level.

[(c)] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[(d)] NA indicates sample not analyzed for indicated analyte.

Table B-2
2007 Trench Soil Sample Analytical Results - Total Metals
210 McKenzie Avenue
City of Bellingham

Sample ID Analyte	Trench 1 - 6 ft (mg/kg)	Trench 2 - 2.5 ft (mg/kg)	Trench 3 - 5 ft (mg/kg)	Trench 3 - 4 ft (mg/kg)	Trench 5 - 5 ft (mg/kg)	Trench 6 - 3 ft (mg/kg)	Trench 7 - 6 ft (mg/kg)	Surface Sample 1 (mg/kg)	Surface Sample 3 (mg/kg)	Trench 26 - 0.5 ft (mg/kg)	Trench 29 - 2 ft (mg/kg)	Target CUL (mg/kg)
Date	04/17/07	04/17/07	04/17/07	04/17/07	04/18/07	04/18/07	04/19/07	04/19/07	04/23/07	04/23/07	04/23/07	
Total Metals - EPA 6000/7000 Series Methods												
Antimony	ND(<3.0)	4.3	ND(<3.0)	14	**160**	3.9	13	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	32
Arsenic	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	20
Beryllium	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	
Cadmium	1.7	**5.5**	1.6	**12**	**3.3**	**6.9**	**23**	**19**	**3**	**4.2**	**2.4**	2
Chromium	28	9.6	32	ND(<1.0)	35	11	13	ND(<1.0)	24	29	37	42
Copper	20	**120**	22	**6,900**	**630**	**290**	**470**	**2,200**	**510**	**270**	34	100
Lead	ND(<5.0)	100	ND(<5.0)	**830**	**3,000**	17	62	52	71	18	ND(<5.0)	220
Mercury	ND(<0.02)	ND(<0.02)	ND(<0.02)	0.16	0.04	ND(<0.02)	ND(<0.02)	ND(<0.02)	1.1	0.04	0.04	2
Nickel	48	59	47	60	45	65	**210**	14	39	41	48	100
Selenium	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Silver	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	44	85	80	**2,500**	**630**	28	62	**4,300**	**340**	94	58	270

[(a)] Bold indicates concentration exceeded MTCA Method A cleanup level.

[(b)] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

Table B-3
2007 Trench Soil Sample Analytical Results - VOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 - 2.5 ft	Trench 3 - 4 ft	Trench 5 - 5 ft	Target CUL
Analyte	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
Date	4/17/2007	4/17/2007	4/18/2007	
EPA 8260 Method				
Dichlorodifluoromethane	ND(<10)	ND(<10)	ND(<10)	
Chloromethane	ND(<10)	ND(<10)	ND(<10)	
Vinyl Chloride	ND(<10)	ND(<10)	ND(<10)	
Bromomethane	ND(<10)	ND(<10)	ND(<10)	
Chloroethane	ND(<10)	ND(<10)	ND(<10)	
Trichlorofluoromethane	ND(<10)	ND(<10)	ND(<10)	
Acetone	410	ND(<50)	ND(<50)	
1,1-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
Methylene Chloride	**70**	ND(<10)	ND(<10)	20
Acrylonitrile	ND(<50)	ND(<50)	ND(<50)	
Methyl T-Butyl Ether	ND(<10)	ND(<10)	ND(<10)	100
Trans-1,2-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
1,1-Dichloroethane	ND(<10)	ND(<10)	ND(<10)	
2-Butanone	ND(<50)	ND(<50)	ND(<50)	
Cis-1,2-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
2,2-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Bromochloromethane	ND(<10)	ND(<10)	ND(<10)	
Chloroform	ND(<10)	ND(<10)	ND(<10)	
1,1,1-Trichloroethane	ND(<10)	ND(<10)	ND(<10)	
1,1-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
Carbon Tetrachloride	ND(<10)	ND(<10)	ND(<10)	
1,2-Dichloroethane	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<10)	ND(<10)	ND(<10)	30
Trichloroethene	ND(<10)	ND(<10)	ND(<10)	

Table B-3
2007 Trench Soil Sample Analytical Results - VOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 - 2.5 ft	Trench 3 - 4 ft	Trench 5 - 5 ft	Target CUL
Analyte	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
Date	4/17/2007	4/17/2007	4/18/2007	
1,2-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Dibromomethane	ND(<10)	ND(<10)	ND(<10)	
Bromodichloromethane	ND(<10)	ND(<10)	ND(<10)	
Trans-1,3-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
4-Methyl-2-Pentanone	ND(<50)	ND(<50)	ND(<50)	
Toluene	ND(<10)	ND(<10)	ND(<10)	7,000
Cis-1,3-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
1,1,2-Trichloroethane	ND(<10)	ND(<10)	ND(<10)	
2-Hexanone	ND(<50)	ND(<50)	ND(<50)	
1,3-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Tetrachloroethylene	ND(<10)	ND(<10)	ND(<10)	
Dibromochloromethane	ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromoethane	ND(<5)	ND(<5)	ND(<5)	
Chlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,1,1,2-Tetrachloroethane	ND(<10)	ND(<10)	ND(<10)	
Ethylbenzene	ND(<10)	ND(<10)	ND(<10)	6,000
M+P Xylene	ND(<20)	ND(<20)	ND(<20)	9,000[(a)]
Styrene	ND(<10)	ND(<10)	ND(<10)	
O-Xylene	ND(<10)	ND(<10)	ND(<10)	9,000[(a)]
Bromoform	ND(<10)	ND(<10)	ND(<10)	
Isopropylbenzene	ND(<10)	ND(<10)	ND(<10)	
1,1,2,2-Tetrachloroethane	ND(<10)	ND(<10)	ND(<10)	
1,2,3-Trichloropropane	ND(<10)	ND(<10)	ND(<10)	
Bromobenzene	ND(<10)	ND(<10)	ND(<10)	
N-Propyl Benzene	ND(<10)	ND(<10)	ND(<10)	

Table B-3
2007 Trench Soil Sample Analytical Results - VOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 - 2.5 ft	Trench 3 - 4 ft	Trench 5 - 5 ft	Target CUL
Analyte	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
Date	4/17/2007	4/17/2007	4/18/2007	
2-Chlorotoluene	ND(<10)	ND(<10)	ND(<10)	
1,3,5-Trimethylbenzene	17	ND(<10)	ND(<10)	800
4-Chlorotoluene	ND(<10)	ND(<10)	ND(<10)	
T-Butyl Benzene	ND(<10)	ND(<10)	ND(<10)	
1,2,4-Trimethylbenzene	17	ND(<10)	ND(<10)	
S-Butyl Benzene	ND(<10)	ND(<10)	ND(<10)	
P-Isopropyltoluene	ND(<10)	ND(<10)	ND(<10)	
1,3 Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,4-Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
N-Butylbenzene	ND(<10)	ND(<10)	ND(<10)	
1,2-Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromo 3-Chloropropane	ND(<50)	ND(<50)	ND(<50)	
1,2,4-Trichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
Hexachlorobutadiene	ND(<10)	ND(<10)	ND(<10)	
Naphthalene	86	ND(<10)	ND(<10)	5,000
1,2,3-Trichlorobenzene	ND(<10)	ND(<10)	ND(<10)	

[a] Cleanup level for total xylenes (M+O+P).

[b] Bold indicates concentration exceeded MTCA Method A cleanup level.

[c] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
EPA 8270 SIM Method (mg/kg)								
Naphthalene	15	ND(<0.04)	ND(<0.04)	ND(<0.04)	ND(<0.02)	0.15	0.07	
1-Methylnaphthalene	**130**	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.03	0.18	0.14	35
2-Methylnaphthalene	**100**	ND(<0.04)	ND(<0.04)	0.04	0.05	0.27	0.13	320
Total Naphthalenes	**245**			0.04	0.08	0.6	0.34	5[(a)]
Acenaphthylene	7.2	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.1	ND(<0.02)	0.09	
Acenaphthene	100	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.07	ND(<0.02)	0.18	4,800
Fluorene	87	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.21	ND(<0.02)	0.06	3,200
Phenanthrene	320	0.11	0.13	0.05	0.64	0.05	1.3	
Anthracene	84	ND(<0.04)	ND(<0.04)	0.05	0.44	ND(<0.02)	0.15	24,000
Fluoranthene	150	0.12	0.16	ND(<0.04)	0.98	0.06	2.2	3,200
Pyrene	190	0.16	0.19	0.23	2.6	0.1	2.6	2,400
Benzo[A]Anthracene	68	0.08	0.05	ND(<0.04)	1	0.03	1.2	
Chrysene	120	0.1	0.09	0.23	2.5	0.05	1.5	
Benzo[B]Fluoranthene	26	0.07	0.05	0.12	0.83	0.02	1.6	
Benzo[K]Fluoranthene	11	0.06	0.06	0.06	0.44	0.02	1	
Benzo(A)Pyrene	33	0.09	0.08	0.26	1.2	0.03	0.86	

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
Indeno[1,2,3-Cd]Pyrene	9.8	0.07	0.06	0.1	0.46	ND(<0.02)	0.8	
Dibenz[A,H]Anthracene	11	ND(<0.04)	ND(<0.04)	0.09	0.4	ND(<0.02)	0.37	
Benzo[G,H,I]Perylene	15	0.08	0.07	0.23	0.72	0.02	0.77	
cPAH Total TEC[(b)]	**46.78**	**0.12**	**0.10**	**0.30**	**1.54**	0.04	**1.37**	0.1
EPA 8270 Method (μg/kg)								
Pyridine	ND(<20,000)	ND(<200)	ND(<200)	ND(<200)	ND(<800)	NA	NA	
N-Nitrosodimethylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Phenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Aniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroethyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Chlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,3-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,4-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzyl Alcohol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroisopropyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
4-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitroso-Di-N-Propylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachloroethane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Nitrobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Isophorone	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Nitrophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dimethylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzoic Acid	ND(<1,000)	ND(<1,000)	ND(<1,000)	ND(<2,000)	ND(<4,000)	NA	NA	
Bis(2-Chloroethoxy)Methane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2,4-Trichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloroaniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobutadiene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloro-3-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Naphthalene	11,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylnaphthalene	94,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	320,000

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
1-Methylnaphthalene	**120,000**	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	35,000
Total Naphthalenes	**225,000**							5,000[(a)]
Hexachlorocyclopentadiene	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
2,4,6-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4,5-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Chloronaphthalene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthylene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Dimethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthene	69,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	4,800,000
3-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dinitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
4-Nitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Dibenzofuran	16,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	80,000
2,4-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,3,4,6-Tetrachlorophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
Diethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Fluorene	61,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	3,200,000
4-Chlorophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
4,6-Dinitro-2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitrosodiphenylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Azobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Bromophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Pentachlorophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Phenanthrene	270,000	ND(<100)	110	ND(<200)	580	NA	NA	
Anthracene	60,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	24,000,000
Carbazole	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Di-N-Butylphthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Fluoranthene	120,000	110	130	ND(<200)	950	NA	NA	3,200,000
Pyrene	180,000	110	140	ND(<200)	2,900	NA	NA	2,400,000
Butylbenzylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table B-4
2007 Trench Soil Sample Analytical Results - SVOCs
210 McKenzie Avenue
City of Bellingham

Sample ID	Trench 2 -	Trench 3 -	Trench 5 -	Trench 6 -	Trench 7 -	Trench 10 -	Surface	Target CUL
	2.5 ft	4 ft	5 ft	3 ft	6 ft	7 ft	Sample 1	
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
3,3'-Dichlorobenzidine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[A]Anthracene	51,000	ND(<100)	ND(<100)	ND(<200)	870	NA	NA	
Chrysene	97,000	ND(<100)	ND(<100)	ND(<200)	2,600	NA	NA	
Bis(2-Ethylhexyl)Phthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Di-N-Octylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[B]Fluoranthene	19,000	ND(<100)	ND(<100)	ND(<200)	530	NA	NA	
Benzo[K]Fluoranthene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[A]Pyrene	22,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
Indeno[1,2,3-Cd]Pyrene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	460	NA	NA	
Dibenz[A,H]Anthracene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	430	NA	NA	
Benzo[G,H,I]Perylene	16,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
cPAH Total TEC[(b)]	**29,970**				**1,105**			100

[(a)] Cleanup level for sum of Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene.

[(b)] Toxic equivalent concentrations (TEC) for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) based on methodology in WAC 173-340-708(8)(e).

[(c)] Bold indicates concentration exceeded MTCA Method A cleanup level.

[(d)] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[(e)] NA indicates sample not analyzed for indicated analyte.

Table B-5
2010 - 2011 Soil Boring Sample Analytical Results
210 McKenzie Avenue
City of Bellingham

Sample ID	B-7 (8-8.5')	B-8 (12.5')	B-9 (12.5')	B-10 (14 ft)	B-11 (14 ft)	B-12 (14 ft)	
	(MW-7)	(MW-8)	(MW-9)	(MW-10)	(MW-11)	(MW-12)	
Date	5/13/10	5/13/10	5/13/10	06/07/11	06/07/11	06/07/11	Target CUL
NW-TPH Methods (mg/kg)							
Gasoline Range (NWTPH-Gx)	ND(<3.0)	ND(<3.0)	ND(<3.9)	ND(<3.0)	ND(<3.0)	ND(<3.0)	100/30[(a)]
Diesel Range (NWTPH-Dx)	ND(<25)	**2,500**	**26,000**	ND(<25)	ND(<25)	ND(<25)	2,000
Oil Range (NWTPH-Dx)	ND(<50)	**3,100**	**40,000**	ND(<50)	ND(<50)	ND(<50)	2,000
EPA 8021 Method (mg/kg)							
Benzene	ND(<0.03)	ND(<0.03)	ND(<0.046)	ND(<0.03)	ND(<0.03)	ND(<0.03)	0.03
Toluene	ND(<0.05)	ND(<0.05)	ND(<0.077)	ND(<0.05)	ND(<0.05)	ND(<0.05)	7
Ethylbenzene	ND(<0.05)	ND(<0.05)	ND(<0.077)	ND(<0.05)	ND(<0.05)	ND(<0.05)	6
Xylenes	ND(<0.20)	ND(<0.20)	ND(<0.31)	ND(<0.20)	ND(<0.20)	ND(<0.20)	9
Metals - EPA 6020 (mg/kg)							
Arsenic	2.6	**49**	**51**	8.5	2.2	3.1	20
Cadmium	ND(<0.20)	ND(<0.20)	ND(<3.1)	ND(<1.3)	ND(<1.1)	ND(<1.2)	2
Chromium	43	**270**	**170**	49	49	50	78.5
Lead	4.3	**1,000**	**220**	5.6	2	13	220
Metals - EPA 7471 (mg/kg)							
Mercury	0.038	0.055	0.042	0.051	0.027	0.029	2

[(a)] - Cleanup level dependent on benzene concentration.

[(b)] Bold indicates concentration exceeded MTCA Method A cleanup level.

[(c)] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[(d)] NA indicates sample not analyzed for indicated analyte.

Table B-6
2020 - 2021 Soil Sample Analytical Results
210 McKenzie Avenue
City of Bellingham

Sample/Boring ID	Date	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Volatile Organic Compounds (VOC) (EPA-8260)					EPA-8270	EPA-6020	EPA-6020	EPA-6020	EPA-6020	Calc-Cr3	EPA-7196	EPA-6020/1311	EPA-6020	EPA-6020/1311	EPA-7471	EPA-6020	EPA-6020
		Volatile Range	Diesel Range	Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	All Other VOCs	All SVOCs	Arsenic[b]	Barium	Cadmium	Chromium	Chromium (III)	Chromium (VI)	Chromium (TCLP)	Lead	Lead (TCLP)	Mercury	Selenium	Silver
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg
MTCA Method A Cleanup Level:		100/30[a]	2,000	2,000	0.03	7	6	9	--	--	20	--	2	--	2,000	19	--	250	--	2	--	--
MTCA Method B Cleanup Level:		--	--	--	18	6,400	8,000	16,000	--	--	0.67	16,000	80	--	120,000	240	--	--	--	--	400	400
B-1-20 28.5ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.4	88	0.17	64	64	ND(<5.0)	NA	3.5	NA	0.042	ND(<1.0)	ND(<0.10)
B-1-20 35.5ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.2	56	0.12	37	37	ND(<5.0)	NA	2.4	NA	0.039	ND(<1.0)	ND(<0.10)
B-2-20 4ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	63	0.16	47	47	ND(<5.0)	NA	3.4	NA	0.089	ND(<1.0)	ND(<0.10)
B-2-20 9ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	2.7	55	0.15	49	49	ND(<5.0)	NA	2.7	NA	0.033	ND(<1.0)	ND(<0.10)
B-3-20 12.5ft	10/28/2020	ND(<3.0)	**7,500**	**7,700**	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	15	90	1.6	290	290	ND(<5.0)	ND(<0.031)	**570**	0.13	0.330	ND(<1.0)	1.2
B-3-20 19ft	10/28/2020	ND(<3.0)	160	160	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	8.3	100	0.24	67	67	ND(<5.0)	NA	61	NA	0.290	ND(<1.0)	0.16
B-4-20 5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	60	ND(<0.10)	74	74	ND(<5.0)	NA	2.6	NA	0.021	ND(<1.0)	ND(<0.10)
B-4-20 10ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.2	52	0.11	76	76	ND(<5.0)	NA	2.7	NA	0.034	ND(<1.0)	0.27
B-5-20 9ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	46	0.1	36	35	ND(<5.0)	NA	2.3	NA	0.032	ND(<1.0)	ND(<0.10)
B-5-20 11.5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.3	40	ND(<0.10)	33	50	ND(<5.0)	NA	2.6	NA	0.032	ND(<1.0)	ND(<0.10)
B-6-20 9ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	7.2	110	0.13	50	33	ND(<5.0)	NA	5.4	NA	0.046	ND(<1.0)	ND(<0.10)
B-6-20 11.5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	6.7	100	0.12	50	50	ND(<5.0)	NA	5	NA	0.045	ND(<1.0)	ND(<0.10)
B-7-20 13ft	10/28/2020	ND(<3.0)	ND(<25)	69	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.7	47	0.14	34	34	ND(<5.0)	NA	32	NA	0.025	ND(<1.0)	ND(<0.10)
B-7-20 19ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5	85	ND(<0.10)	54	54	ND(<5.0)	NA	6.1	NA	0.024	ND(<1.0)	ND(<0.10)
B-8-20 5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	89	ND(<0.10)	50	50	ND(<5.0)	NA	4.5	NA	0.049	ND(<1.0)	0.12
B-8-20 9ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.3	73	0.11	41	41	ND(<5.0)	NA	3.5	NA	0.033	ND(<1.0)	ND(<0.10)
B-9-20 7.5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3	61	0.23	49	49	ND(<5.0)	NA	6.9	NA	0.042	ND(<1.0)	ND(<0.10)
B-9-20 10ft	10/27/2020	ND(<3.0)	ND(<250)	530	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.1	61	**4.8**	73	73	ND(<5.0)	NA	64	NA	0.074	1.6	0.17
B-10-20 5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	53	0.11	47	47	ND(<5.0)	NA	2.4	NA	0.033	ND(<1.0)	ND(<0.10)
B-10-20 11.5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.2	40	ND(<0.10)	39	39	ND(<5.0)	NA	2.1	NA	0.031	ND(<1.0)	ND(<0.10)
MW-13 8 to 9ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	50	ND(<0.10)	32	32	ND(<5.0)	NA	2.6	NA	0.041	ND(<1.0)	ND(<0.10)
TP-1-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	72	ND(<0.10)	37	37	ND(<5.0)	NA	3.6	NA	0.038	ND(<1.0)	ND(<0.10)
TP-2-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	2.4	51	ND(<0.10)	38	38	ND(<5.0)	NA	2.6	NA	0.033	ND(<1.0)	ND(<0.10)
TP-3-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.5	41	ND(<0.10)	34	34	ND(<5.0)	NA	2.3	NA	0.031	ND(<1.0)	ND(<0.10)
TP-4-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	47	0.1	32	32	ND(<5)	NA	2.4	NA	0.032	ND(<1.0)	ND(<0.10)
TP-5-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.3	51	0.11	48	48	ND(<5.0)	NA	2.5	NA	0.038	ND(<1.0)	ND(<0.10)
TP-6-20 4.75ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.8	94	0.12	47	47	ND(<5.0)	NA	4.5	NA	0.038	ND(<1.0)	ND(<0.10)
TP-7-20 2ft	11/10/2020	ND<3.0)	550	1200	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	**29**	11	0.32	130	130	ND(<5.0)	NA	160	NA	0.072	ND(<1.0)	1
B-2-21 5ft	7/8/2021	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	48	ND(<0.10)	46	46	ND(<5.0)	NA	3.4	NA	0.034	ND(<1.0)	ND(<0.10)
B-3-21 7.5ft	7/8/2021	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.0	66	0.15	53	53	ND(<5.0)	NA	20	NA	0.040	ND(<1.0)	ND(<0.10)
P-1 Composite	7/8/2021	ND(<3.0)	170	570	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	9.4	110	0.26	43	NA	NA	ND(<0.031)	37	0.059	0.029	ND(<1.0)	ND(<0.10)

[a] Cleanup level dependent on BTEX concentrations.

[b] Method A cleanup level was used at the Site to account for natural background concentrations, as per MTCA Guidance.

[b] Bold indicates concentration exceeded MTCA Method A cleanup level.

[c] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[d] NA indicates sample not analyzed for indicated analyte.

[e] -- indicates a cleanup level has not been specified.

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-1									
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 Dup.	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	180	ND(<250)	180	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-1 (cont.)									
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	ND(<50)	ND(<130)	490	490	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	220	ND(<250)	220	NA	NA	NA	NA	NA
09/06/23	NA	180	ND(<250)	180	NA	NA	NA	NA	NA
MW-2									
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07 Dup.	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-2 (cont.)									
03/04/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	140	ND(<250)	140	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 Dup.	ND(<50)	150	ND(<250)	150	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	170	ND(<250)	170	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	210	ND(<250)	210	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	200	ND(<250)	200	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
11/18/20	ND(<50)	ND(<130)	**650**	**650**	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	370	ND(<250)	370	NA	NA	NA	NA	NA
09/06/23	NA	**650**	**630**	**1,280**	NA	NA	NA	NA	NA

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-3									
08/02/07	ND(<50)	150	ND(<250)	150	3	ND(<2)	3	ND	ND(<2)
12/06/07	64	ND(<130)	ND(<250)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08	77	ND(<130)	ND(<250)	ND(<250)	**5**	ND(<2)	7	ND	ND(<2)
03/04/09	58	180	ND(<250)	180	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09	ND(<50)	150	ND(<250)	150	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 Dup.	ND(<50)	160	ND(<250)	160	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	76	170	ND(<250)	170	3.6	7.1	6.1	8.3	ND(<3)
11/18/09	ND(<50)	250	ND(<250)	250	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	190	ND(<250)	190	2.2	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	210	ND(<250)	210	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	370	ND(<250)	370	1.9	ND(<1)	2.9	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	1.5	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	1.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	1.9	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-3 (cont.)									
09/22/11	ND(<50)	150	ND(<250)	150	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	65	360	ND(<250)	360	1.1	ND(<1)	ND(<1)	3.7	ND(<3)
06/14/12	ND(<50)	190	ND(<250)	190	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12 Dup.	ND(<50)	130	ND(<250)	130	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/20	ND(<50)	**760**	420	**1,180**	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
11/18/20 Dup.	ND(<50)	**810**	360	**1,170**	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	**1,300**	**850**	**2,150**	NA	NA	NA	NA	NA
09/20/22 Dup.	NA	**990**	**520**	**1,510**	NA	NA	NA	NA	NA
10/20/23	NA	**1,200**	**650**	**1,850**	NA	NA	NA	NA	NA
MW-4									
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-4 (cont.)									
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	6.4
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-5									
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-5 (cont.)									
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	160	ND(<250)	160	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-6									
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-6 (cont.)									
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/20	ND(<50)	ND(<130)	480	480	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	330	430	**760**	NA	NA	NA	NA	NA
09/06/23	NA	270	400	**670**	NA	NA	NA	NA	NA

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-7									
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<250)	ND(<130)	ND(<250)	ND(<250)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<15)	ND(<15)
09/08/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/20	ND(<50)	ND(<130)	**630**	**630**	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/21/22	NA	310	ND(<250)	310	NA	NA	NA	NA	NA
09/06/23	NA	450	460	**910**	NA	NA	NA	NA	NA
MW-8									
06/24/10	ND(<50)	240	ND(<250)	240	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	250	ND(<250)	250	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	170	ND(<250)	170	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-8 (cont.)									
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	170	ND(<250)	170	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	140	ND(<250)	140	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	150	ND(<250)	150	NA	NA	NA	NA	NA
11/18/20	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/21/22	NA	**590**	400	**990**	NA	NA	NA	NA	NA
09/06/23	NA	**750**	**590**	**1,340**	NA	NA	NA	NA	NA
MW-9									
06/24/10	ND(<50)	480	ND(<250)	480	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 Dup.	ND(<50)	**530**	ND(<250)	**530**	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	370	ND(<250)	370	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	320	ND(<250)	320	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	55	150	ND(<250)	150	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	210	ND(<250)	210	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11 Dup.	ND(<50)	170	ND(<250)	170	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	180	ND(<250)	180	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-9 (cont.)									
12/06/11	ND(<50)	270	ND(<250)	270	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	260	ND(<250)	260	NA	NA	NA	NA	NA
11/18/20	ND(<50)	ND(<130)	**3,000**	**3,000**	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	**1,700**	**1,100**	**2,800**	NA	NA	NA	NA	NA
09/06/23	NA	**1,400**	**840**	**2,240**	NA	NA	NA	NA	NA
9/6/23 Dup.	NA	**1,200**	**700**	**1,900**	NA	NA	NA	NA	NA
MW-10									
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/19/20	ND(<50)	280	ND(<250)	280	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
09/07/23	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-11									
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/19/20	ND(<50)	150	ND(<250)	150	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	130	ND(<250)	130	NA	NA	NA	NA	NA
09/06/23	NA	180	ND(<250)	180	NA	NA	NA	NA	NA
MW-12									
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/19/20	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
09/06/23	NA	240	ND(<250)	240	NA	NA	NA	NA	NA

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[(a)]	500	500	500	5	1,000	700	1,000	20
MW-13									
11/18/20	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
09/06/23	NA	130	ND(<250)	130	NA	NA	NA	NA	NA
MW-14									
11/18/20	ND(<50)	ND(<130)	380	380	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22	NA	150	ND(<250)	150	NA	NA	NA	NA	NA
09/06/23	NA	140	ND(<250)	140	NA	NA	NA	NA	NA
Equipment Blank									
08/02/07 (MW-8)	NA	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 (MW-8)	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
03/12/08 (MW-8)	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
06/16/08 (MW-8)	NA	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<50)	NA	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table B-7
Groundwater Sample Analytical Results - TPH and BTEX
210 McKenzie Avenue
City of Bellingham

Well ID	Volatile Range	Diesel Range	Oil Range	Diesel + Oil	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx	Sum	EPA 8021	EPA 8021	EPA 8021	EPA 8021	EPA 8021
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000[a]	500	500	500	5	1,000	700	1,000	20
Equipment Blank (cont.)									
03/18/10 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11 (MW-15)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/20 (WES-FEB-1)	ND(<50)	ND(<130)	ND(<250)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND(<4)	ND(<2)
09/20/22 (WES-FEB-1)	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA
09/06/23 (WES-FEB-1)	NA	ND(<130)	ND(<250)	ND(<250)	NA	NA	NA	NA	NA

[a] Cleanup level dependent on BTEX concentrations.

[b] Bold indicates concentration exceeded MTCA Method A cleanup level.

[c] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[d] NA indicates sample not analyzed for indicated analyte.

[e] All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10).

[f] All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11.

[g] All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11.

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	0	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	**22,000**	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	**21,000**	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	0	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3.0
03/18/10	1.9	**21,000**	4,400	16,600	1.5	ND(<0.29)	16	ND(<0.05)	4.1
06/23/10	3.6	**25,000**	4,200	20,800	0.68	ND(<0.29)	13	ND(<0.05)	4.5
09/09/10	**6.3**	**32,000**	4,000	28,000	2.8	ND(<0.29)	0.69	ND(<0.05)	5.5
12/02/10	3.5	**27,000**	4,400	22,600	0.62	ND(<0.29)	14	ND(<0.05)	4.0
03/23/11	**5.4**	**28,000**	5,000	23,000	0.9	ND(<0.29)	9	ND(<0.05)	4.0
06/16/11	**6.5**	**26,000**	5,500	20,500	0.74	ND(<0.29)	6	ND(<0.05)	4.6

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-1 (cont.)									
09/22/11	**11**	**40,000**	6,600	33,400	3.40	ND(<0.29)	ND(<0.26)	0.1	6.4
12/07/11	**7.3**	**27,000**	4,600	22,400	1.00	ND(<0.29)	7.3	0.14	3.5
06/14/12	**7.3**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**6.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**6.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**6.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**10**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	4.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**12**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**6.3**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**6.6**	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	3.7	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	**6.4**	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**8**	NA	NA	NA	NA	NA	NA	NA	NA
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-2 (cont.)									
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	**27,000**	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	**27,000**	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	**24,000**	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	**25,000**	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	**24,000**	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
03/18/10	**7.5**	**27,000**	6,000	21,000	13	ND(<0.29)	1.6	ND(<0.05)	5.4
03/18/10 Dup.	**9.1**	**26,000**	6,000	20,000	4.4	ND(<0.29)	1.9	ND(<0.05)	5.3
06/23/10	**10**	**24,000**	4,400	19,600	3.9	ND(<0.29)	2.2	ND(<0.05)	5.5
09/09/10	**22**	**22,000**	4,400	17,600	6.9	ND(<0.29)	0.73	ND(<0.05)	5.4
12/02/10	**6.5**	**28,000**	7,000	21,000	6.1	ND(<0.29)	3.3	ND(<0.05)	6.1
03/23/11	**7.8**	**27,000**	5,000	22,000	3.4	ND(<0.29)	1.8	ND(<0.05)	4.9
06/16/11	**10**	**24,000**	6,000	18,000	5.3	ND(<0.29)	0.78	ND(<0.05)	5.2
09/22/11	**15**	**25,000**	6,800	18,200	5.2	ND(<0.29)	0.8	0.08	6.1
12/07/11	4.0	**29,000**	4,800	24,200	9.70	ND(<0.29)	12	0.2	6.0
06/14/12	**10**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**14**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-2 (cont.)									
09/17/14	**5.6**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	4.7	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**10**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	2.2	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**11**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**13**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	**10**	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**7.5**	NA	NA	NA	NA	NA	NA	NA	NA
MW-3									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	**37,000**	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09	ND(<5)	**35,000**	7,600	27,400	16	ND(<0.4)	1.3	0.08	13

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-3 (cont.)									
06/04/09 Dup.	ND(<5)	**35,000**	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09	1.7	**40,000**	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09	2.3	**35,000**	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
03/18/10	ND(<1.8)	**34,000**	5,400	28,600	7.8	ND(<0.29)	3.4	ND(<0.05)	11
06/23/10	2.3	**37,000**	5,400	31,600	13	ND(<0.29)	3.0	ND(<0.05)	14
09/09/10	**5.7**	**35,000**	5,000	30,000	8.8	8	27.0	ND(<0.05)	12
12/02/10	ND(<1.8)	**25,000**	5,600	19,400	10	ND(<0.29)	18.0	ND(<0.05)	10
03/23/11	3.6	**39,000**	7,000	32,000	10	ND(<0.29)	2	ND(<0.05)	13
06/16/11	3.9	**35,000**	5,600	29,400	11	ND(<0.29)	ND(<0.26)	ND(<0.05)	13
09/22/11	**8.4**	**45,000**	5,600	39,400	7	ND(<0.29)	16	0.14	18
12/07/11	2.3	**32,000**	4,200	27,800	14	ND(<0.29)	11	0.14	11
06/14/12	2.6	NA	NA	NA	NA	NA	NA	NA	NA
06/14/12 Dup.	2.8	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	3	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	3	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**7.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16 Dup.	**6.9**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-3 (cont.)									
09/19/17	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	2.1	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	3.4	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	1.2	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20 Dup.	1.0	NA	NA	NA	NA	NA	NA	NA	NA
MW-3									
11/18/20	1.0	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20 Dup.	1.1	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	1.0	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22 Dup.	1.1	NA	NA	NA	NA	NA	NA	NA	NA
10/20/23	2.7	NA	NA	NA	NA	NA	NA	NA	NA
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	23	NA	3.4

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-4 (cont.)									
06/04/09	ND(<5)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
03/18/10	ND(<1.8)	ND(<220)	0	ND	0.07	ND(<0.29)	20	ND(<0.05)	2.6
06/23/10	ND(<1.8)	ND(<220)	0	ND	0.38	ND(<0.29)	16	ND(<0.05)	2.5
09/09/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	8	26	ND(<0.05)	2.5
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	73	ND(<0.05)	3.2
03/23/11	2.5	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	12	ND(<0.05)	1.8
06/16/11	1.9	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.8	ND(<0.05)	2.0
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.9	ND(<0.05)	3.2
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.5	2.8	2.8
06/14/12	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities*								
09/17/14	*Well covered during construction activities*								
09/28/15	*Well covered during construction activities*								
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-5 (cont.)									
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	0	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
03/18/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.7	ND(<0.05)	2.1
06/23/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.6	ND(<0.05)	2.1
09/09/10	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.1	ND(<0.05)	2.0
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.0	ND(<0.05)	4.8
03/23/11	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.8	ND(<0.05)	2.2
06/16/11	3.0	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	2.3	ND(<0.05)	1.9
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.8	0.14	2.5
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.2	2.8	2.8
06/13/12	1.1	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities*								
09/17/14	*Well covered during construction activities*								

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-5 (cont.)									
09/28/15	*Unable to locate well*								
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	**14,000**	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	**16,000**	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	**21,000**	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
03/18/10	**6.0**	**12,000**	10,000	2,000	3.2	ND(<0.29)	5.2	ND(<0.05)	8
06/24/10	**7.1**	**19,000**	4,000	15,000	4.9	ND(<0.29)	6.9	ND(<0.05)	10
09/09/10	**15**	**26,000**	4,600	21,400	6.7	ND(<0.29)	2.6	ND(<0.05)	11
12/02/10	**6.5**	**18,000**	5,000	13,000	7.1	ND(<0.29)	6.9	ND(<0.05)	10
03/23/11	**8.0**	**16,000**	5,000	11,000	2.4	ND(<0.29)	2.4	ND(<0.05)	9

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-6 (cont.)									
06/16/11	**8.8**	**24,000**	5,200	18,800	7.8	ND(<0.29)	4.6	ND(<0.05)	10
06/16/11 Dup.	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/22/11	**15**	**27,000**	5,000	22,000	1.8	ND(<0.29)	ND(<0.26)	0.1	11
12/08/11	**6.8**	**14,000**	3,800	10,200	1.5	ND(<0.29)	17	0.3	7.5
06/13/12	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	4.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12 Dup.	4.4	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**7.2**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**6.6**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**14**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**12**	NA	NA	NA	NA	NA	NA	NA	NA
09/21/18	**11**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**5.9**	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	1.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	**47**	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**30**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-7									
06/24/10	**6.6**	**25,000**	3,400	21,600	3.7	ND(<0.29)	1.2	ND(<0.05)	11.0
09/08/10	**5.3**	**29,000**	5,000	24,000	3.7	ND(<0.29)	1.0	ND(<0.05)	11.0
09/08/10 Dup.	4.9	**28,000**	NA	NA	4.0	ND(<0.29)	0.28	ND(<0.05)	12.0
12/01/10	**7.6**	**33,000**	6,400	26,600	5.2	ND(<0.29)	0.67	ND(<0.05)	11.0
03/22/11	**7.1**	**28,000**	5,400	22,600	6.2	ND(<0.29)	1.4	ND(<0.05)	10.0
03/22/11 Dup.	**6.8**	**27,000**	5,400	21,600	2.9	ND(<0.29)	0.43	ND(<0.05)	10.0
06/15/11	**7.6**	**23,000**	5,000	18,000	5.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	10.0
09/21/11	**8.7**	**35,000**	5,800	29,200	4.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.9
12/08/11	**8.5**	**35,000**	5,500	29,500	2.7	ND(<0.29)	3	0.3	9.4
06/13/12	**9.7**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**12**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14 Dup.	**8.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**5.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**24**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**10**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**7.1**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-7 (cont.)									
08/06/19 Dup.	**9**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**11**	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	3.6	NA	NA	NA	NA	NA	NA	NA	NA
09/21/22	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**5.9**	NA	NA	NA	NA	NA	NA	NA	NA
MW-8									
06/24/10	2.7	**34,000**	5,400	28,600	4.7	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.9
09/08/10	2.5	**33,000**	3,800	29,200	9.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.7
12/01/10	2.5	**29,000**	5,400	23,600	5.9	ND(<0.29)	2.3	ND(<0.05)	8.5
12/01/10 Dup.	2.5	**29,000**	NA	NA	3.4	ND(<0.29)	2.0	ND(<0.05)	8.6
03/22/11	2.7	**18,000**	5,600	12,400	5.3	ND(<0.29)	0.75	ND(<0.05)	6.8
06/15/11	3.3	**31,000**	8,000	23,000	8.3	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.9
09/21/11	2.0	**30,000**	5,700	24,300	10.0	ND(<0.29)	0.27	0.14	7.5
12/06/11	ND(<1.8)	**12,000**	3,800	8,200	4.6	ND(<0.29)	12	0.16	8.3
06/13/12	1.9	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	1.4	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	1.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.1	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-8 (cont.)									
09/08/16	ND(<2.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	1.6	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	2.0	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	1.1	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/21/22	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
MW-9									
06/24/10	3.8	**28,000**	4,000	24,000	8.5	ND(<0.29)	1.5	ND(<0.05)	7.1
06/24/10 Dup.	3.7	**28,000**	NA	NA	13.0	ND(<0.29)	1.2	ND(<0.05)	7.1
9/8/2010	2.8	**25,000**	3,000	22,000	15.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.5
12/1/2010	3.0	**30,000**	4,000	26,000	8.8	ND(<0.29)	0.48	ND(<0.05)	6.5
03/22/11	**5.5**	**36,000**	4,400	31,600	4.5	ND(<0.29)	0.82	ND(<0.05)	5.3
06/15/11	**6.2**	**32,000**	5,500	26,500	11.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.1
06/15/11 Dup.	**5.9**	**32,000**	NA	NA	13.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.3
09/21/11	3.0	**26,000**	4,800	21,200	7.7	ND(<0.29)	ND(<0.26)	0.10	7.1
12/06/11	3.8	**38,000**	5,500	32,500	12	ND(<0.29)	0.46	0.16	6.9

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-9 (cont.)									
06/13/12	4.6	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.4	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	2.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	3	NA	NA	NA	NA	NA	NA	NA	NA
09/21/18	2.8	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	ND (<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	1.9	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20	2.3	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	2.8	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	1.1	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23 Dup.	5	NA	NA	NA	NA	NA	NA	NA	NA
MW-10									
06/15/11	2.1	590	700	0	0.3	ND(<0.29)	2.0	ND(<0.05)	3.6
09/21/11	ND(<1.8)	2,300	2,400	0	0.8	ND(<0.29)	15.0	0.14	3.4
12/06/11	ND(<1.8)	1,600	1,800	0	1.6	ND(<0.29)	45	0.14	4.1
12/06/11 Dup.	ND(<1.8)	1,300	NA	NA	4.6	ND(<0.29)	40	0.12	4.2

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-10 (cont.)									
06/13/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	2.5	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**11**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15 Dup.	**11**	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**5.8**	NA	NA	NA	NA	NA	NA	NA	NA
09/16/17	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/21/18	**19**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**10**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**16**	NA	NA	NA	NA	NA	NA	NA	NA
11/19/20	**17**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	**7.4**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/23	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
MW-11									
06/15/11	4.3	**13,000**	5,200	7,800	3.8	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
09/21/11	**7.5**	**39,000**	6,500	32,500	2.9	ND(<0.29)	1.7	ND(<0.05)	12.0
12/06/11	**5.2**	**26,000**	5,400	20,600	4.6	ND(<0.29)	0.72	0.22	8.3
06/13/12	**6.2**	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-11 (cont.)									
11/16/12	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**6.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**6.7**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**11**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**5.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	3.4	NA	NA	NA	NA	NA	NA	NA	NA
11/19/20	**6.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	2.8	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**8.3**	NA	NA	NA	NA	NA	NA	NA	NA
MW-12									
06/15/11	3.4	3,700	400	3,300	2.8	ND(<0.29)	3.7	ND(<0.05)	10.0
09/21/11	ND(<1.8)	5,400	3,600	1,800	3.2	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.5
09/21/11 Dup.	ND(<1.8)	5,500	3,600	1,900	2.9	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
12/06/11	1.8	1,600	1,900	0	3.4	ND(<0.29)	4.6	0.14	7.6
06/13/12	1.8	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
MW-12 (cont.)									
09/17/14	3.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.0	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**13**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	3.4	NA	NA	NA	NA	NA	NA	NA	NA
09/21/18	**6.4**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**7.4**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**16**	NA	NA	NA	NA	NA	NA	NA	NA
11/19/20	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	**17**	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	**8.7**	NA	NA	NA	NA	NA	NA	NA	NA
MW-13									
11/18/20	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
MW-14									
11/18/20	1.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22	3.8	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
Equipment Blank									
08/02/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<5)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09 (MW-8)	ND(<5)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)
03/18/10 (MW-8)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.81	ND(<0.05)	2.2
06/24/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	0.26	ND(<0.29)	ND(<0.26)	ND(<0.05)	0.27
09/08/10 (MW-11)	ND(<1.8)	240	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
12/01/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
03/22/11 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.71	ND(<0.05)	ND(<0.25)
06/16/11 (MW-15)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
09/22/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	0.16	ND(<0.25)
12/07/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	1.1	0.12	ND(<0.25)
06/14/12 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA

Table B-8
Groundwater Sample Analytical Results - Arsenic and Related Compounds
210 McKenzie Avenue
City of Bellingham

Well ID	Dissolved Arsenic	Total Dissolved Iron[(a)]	Ferrous Iron (Fe^{2+})[(a)]	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010/200.8	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,000	--	--	--	--	--	--	--
Equipment Blank (cont.)									
11/15/12 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
09/28/14 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16 (MW-14)	ND(<2.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
11/18/20 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/22 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/06/23 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA

[(a)] Filtered field sample was used for analysis.

[(b)] Bold indicates concentration exceeded MTCA Method A cleanup level.

[(c)] ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

[(d)] NA indicates sample not analyzed for indicated analyte.

[(e)] All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10).

[(f)] All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11.

[(g)] All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11.

** Average based on all sampling events presented in table; For calculations non-detect is considered equal to 1/2 of detection limit.

Table B-9
Groundwater Sample Analytical Results - Dissolved Metals
210 McKenzie Avenue
City of Bellingham

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-1				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-2				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-3				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	4
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-4				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)

Table B-9
Groundwater Sample Analytical Results - Dissolved Metals
210 McKenzie Avenue
City of Bellingham

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-5				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-6				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-7				
06/24/10	ND(<0.20)	1.7	2.7	1.9
09/08/10	ND(<0.20)	ND(<0.44)	2.4	6.5
09/08/10 Dup.	ND(<0.20)	ND(<0.44)	2.3	8.2
12/01/10	ND(<0.20)	ND(<0.44)	1.2	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	2.1	ND(<0.62)
03/22/11 Dup.	ND(<0.20)	ND(<0.44)	2.0	0.69
MW-8				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	2.0
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/01/10 Dup.	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.95	0.74

Table B-9
Groundwater Sample Analytical Results - Dissolved Metals
210 McKenzie Avenue
City of Bellingham

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-9				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	4.2
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.82	0.64
MW-10				
06/15/11	ND(<0.20)	ND(<0.27)	1.1	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	0.83	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)
MW-11				
06/15/11	ND(<0.20)	ND(<0.27)	4.8	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	2.4	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)

Table B-9
Groundwater Sample Analytical Results - Dissolved Metals
210 McKenzie Avenue
City of Bellingham

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-12				
06/15/11	ND(<0.20)	ND(<0.27)	5.5	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	5.2	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	4.3	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	3.6	ND(<1)
Equipment Blank				
08/02/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/15/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/08/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	7.3
12/01/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)

(a) ND Indicates analyte was not detected at level above reporting limit (shown in parentheses).

(b) All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to installation of additional monitioring wells (5/13/10).

(c) All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11.

(d) All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11.

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

Well ID	Depth to Water	Groundwater Surface Elevation	Dissolved Arsenic Concentration	ORP	Temp.
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-1					
08/02/07	5.09	12.03	7	-126	16.6
12/06/07	2.79	14.33	ND(<4)	132	9.2
03/12/08	3.66	13.46	ND(<4)	136	9.0
06/16/08	4	13.53	ND(<4)	28	13.0
09/15/08	4.82	12.3	ND(<4)	-84	16.1
03/04/09	3.5	13.62	ND(<5)	69	8.7
06/04/09	3.77	13.35	ND(<5)	-39	13.3
09/02/09	5.57	11.55	1.1	-113	17.0
11/18/09	1.61	15.51	ND(<1)	33	12.0
03/18/10	3.28	13.84	1.9	-62	9.1
06/23/10	3.34	13.78	3.6	-98	13.9
09/09/10	5.14	11.98	6.3	-122	15.8
12/02/10	2.58	14.54	3.5	-70	11.6
03/23/11	2.84	14.28	5.4	-85	
06/15/11	4	13.12	6.5	-118	12.7
09/21/11	5.59	11.53	11	-167	16.1
12/06/11	4.17	12.95	7.3	-89	11.3
06/14/12	4.04	13.08	7.3	-126	13.4
11/15/12	2.61	14.51	6.9	-146	12.6
09/17/14	5.69	11.43	6.0	-134	18.0
09/28/15	3.95	13.17	6.0	-130	17.6
09/07/16	5.45	11.67	10.0	-146	18.3
09/19/17	5.96	11.16	4.8	-106	15.7
09/20/18	5.5	11.62	12.0	-137	17.3
08/06/19	4.66	12.46	6.3	-112	20.1
09/14/20	5.07	12.05	6.6	-127	16.6
11/18/20	1.71	15.41	3.7	-38	13.4
09/20/22	5.05	12.07	6.4	-97	18.3
09/06/23	5.75	11.37	8.0	133	17.2
MW-2					
08/02/07	4.54	12.31	11	-107	15.9
12/06/07	2.55	14.3	12	-115	10.8
03/12/08	3.41	13.44	15	-166	9.1
06/16/08	3.23	13.62	6	-160	12.4
09/15/08	4.36	12.49	20	-129	16.0
03/04/09	3.15	13.7	8	-132	8.8
06/04/09	3.39	13.46	15	-123	14.6

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

Well ID	Depth to Water	Groundwater Surface Elevation	Dissolved Arsenic Concentration	ORP	Temp.
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-2 (cont.)					
09/02/09	5.15	11.7	18	-121	17.6
11/18/09	1.27	15.58	17	-113	12.0
03/18/10	2.93	13.92	7.5	-117	10.1
06/23/10	2.97	13.88	10	-141	14.8
09/09/10	4.62	12.23	22	-114	17.0
12/02/10	2.27	14.58	6.5	-84	11.9
03/23/11	2.5	14.35	7.8	-102	
06/15/11	3.59	13.26	10	-136	12.9
09/21/11	5.18	11.67	15	-135	15.9
12/06/11	3.78	13.07	4.0	-137	11.6
06/14/12	3.58	13.27	10	-146	12.3
11/15/12	2.23	14.62	14	-157	12.5
09/17/14	5.18	11.67	5.6	-143	16.2
09/28/15	3.5	13.35	4.7	-116	15.7
09/07/16	4.94	11.91	10.0	-119	18.1
09/19/17	5.64	11.21	2.2	-108	16.8
09/20/18	4.94	11.91	11.0	-109	17.0
08/06/19	4.21	12.64	13.0	-146	18.2
09/14/20	4.69	12.16	9.1	-125	17.6
11/18/20	1.39	15.46	8.9	-122	12.3
09/20/22	4.74	12.11	10.0	-48	19.1
09/06/23	5.29	11.56	7.5	-82	17.3
MW-3					
08/02/07	3.49	12.25	ND(<4)	-84	16.5
12/06/07	2.11	13.63	ND(<4)	-87	9.7
03/12/08	2.36	13.38	ND(<4)	-154	9.5
06/16/08	2.42	13.32	ND(<4)	-138	13.2
09/15/08	3.38	12.36	ND(<4)	-122	17.5
03/04/09	2.45	13.29	ND(<5)	-112	9.0
06/04/09	2.5	13.24	ND(<5)	-104	14.2
09/02/09	4.22	11.52	1.7	-102	17.0
11/18/09	0.36	15.38	2.3	-88	12.3
03/18/10	2.01	13.73	ND(<1.8)	-96	10.3
06/23/10	2.21	13.53	2.3	-113	14.7
09/09/10	3.66	12.08	5.7	-79	16.9
12/02/10	1.51	14.23	ND(<1.8)	-19	11.4
03/23/11	1.82	13.92	3.6	-86	

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

Well ID	Depth to Water	Groundwater Surface Elevation	Dissolved Arsenic Concentration	ORP	Temp.
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-3 (cont.)					
06/15/11	2.89	12.85	3.9	-122	13.1
09/21/11	4.16	11.58	8.4	-117	16.3
12/06/11	2.89	12.85	2.3	-96	11.3
06/14/12	2.68	13.06	2.6	-142	12.3
11/15/12	1.34	14.4	3.0	-164	12.3
09/17/14	3.34	12.4	3.0	-124	17.9
09/28/15	2.57	13.17	2.9	-67	17.5
09/07/16	3.78	11.96	7.1	-117	17.7
09/19/17	4.79	10.95	2.1	-85	17.6
09/20/18	3.91	11.83	2.1	-36	17.9
08/06/19	3.25	12.49	3.4	-118	19.4
09/14/20	3.87	11.87	1.2	-107	18.4
9/14/20 Dup.	--	--	1.0	--	--
11/18/20	0.45	15.29	1.0	-26	11.5
11/18/20 Dup.	--	--	1.1	--	--
09/20/22	3.85	11.89	1.0	-10	20.3
9/20/22 Dup.	--	--	1.1	--	--
10/05/23	4.94	10.80	2.7	-34	17.4
MW-4					
08/02/07	6.19	14.13	ND(<4)	127	17.0
12/06/07	4.07	16.25	ND(<4)	100	13.0
03/12/08	4.96	15.36	ND(<4)	85	10.3
06/16/08	4.84	15.48	ND(<4)	61	14.8
09/15/08	5.97	14.35	ND(<4)	112	18.2
03/04/09	4.71	15.61	ND(<5)	105	10.1
06/04/09	4.98	15.34	ND(<5)	106	15.4
09/02/09	6.79	13.53	ND(<1)	119	17.9
11/18/09	2.88	17.44	ND(<1)	118	13.3
03/18/10	4.52	15.80	ND(<1.8)	62	10.7
06/23/10	4.58	15.74	ND(<1.8)	37	15.8
09/09/10	6.06	14.26	ND(<1.8)	24	18.0
12/02/10	3.86	16.46	ND(<1.8)	83	12.8
03/23/11	4.1	16.22	2.5	-52	
06/15/11	5.18	15.14	1.9	47	14.0
09/21/11	6.87	13.45	ND(<1.8)	38	17.4
12/06/11	5.36	14.96	ND(<1.8)	61	12.7
06/14/12	5.16	15.16	ND(<1)	18	13.8

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

Well ID	Depth to Water	Groundwater Surface Elevation	Dissolved Arsenic Concentration	ORP	Temp.
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-4 (cont.)					
11/15/12	*Well inaccessible due to construction activities*				
09/17/14	*Well covered during construction activities*				
09/28/15	*Well covered during construction activities*				
11/18/20	*Well covered during construction activities*				
09/20/22	*Well covered during construction activities*				
09/06/23	*Well covered during construction activities*				
MW-5					
08/02/07	6.31	18.83	ND(<4)	84	17.7
12/06/07	1.54	23.60	ND(<4)	138	10.2
03/12/08	1.98	23.16	ND(<4)	79	9.3
06/16/08	3.05	22.09	ND(<4)	76	14.5
09/15/08	6.3	18.84	ND(<4)	111	18.3
03/04/09	1.75	23.39	ND(<5)	222	8.5
06/04/09	3.49	21.65	ND(<5)	14	14.9
09/02/09	7.55	17.59	1.3	49	18.0
11/18/09	0.5	24.64	1.5	29	12.3
03/18/10	1.78	23.36	ND(<1.8)	151	9.9
06/23/10	2.9	22.24	ND(<1.8)	146	16.3
09/09/10	6.94	18.20	2.2	51	18.4
12/02/10	0.7	24.44	ND(<1.8)	134	11.0
03/23/11	1.34	23.80	2.2	-13	
06/15/11	3.88	21.26	3.0	10	13.6
09/21/11	7.46	17.68	ND(<1.8)	36	17.2
12/06/11	2.73	22.41	ND(<1.8)	45	10.8
06/13/12	3.75	21.39	1.1	-119	13.4
11/15/12	*Well inaccessible due to construction activities*				
09/17/14	*Well covered during construction activities*				
09/28/15	*Unable to locate well*				
11/18/20	*Unable to locate well*				
09/20/22	*Unable to locate well*				
09/06/23	*Unable to locate well*				
MW-6					
08/02/07	5.51	13.89	4	17	16.5
12/06/07	2.36	17.04	6	-50	10.3
03/12/08	2.79	16.61	5	-107	9.0
06/16/08	3.06	16.34	ND(<4)	-85	13.7
09/15/08	5.7	13.7	12	-84	16.5

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

	Depth	Groundwater	Dissolved Arsenic		
Well ID	**to Water**	**Surface Elevation**	**Concentration**	**ORP**	**Temp.**
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-6 (cont.)					
03/04/09	2.07	17.33	6	-73	8.3
06/04/09	3.64	15.76	7	-61	13.6
09/02/09	6.42	12.98	17	-78	16.3
11/18/09	1.83	17.57	8.8	-8	12.8
03/18/10	1.94	17.46	6.0	-34	9.4
06/23/10	3.18	16.22	7.1	-52	15.0
09/09/10	4.85	14.55	15	-45	16.9
12/02/10	1	18.4	6.5	-3	10.6
03/23/11	1.32	18.08	8.0	-28	
06/15/11	3.79	15.61	8.8	-90	12.4
09/21/11	6.46	12.94	15	-89	16.0
12/06/11	3.58	15.82	6.8	-5	10.9
06/13/12	3.79	15.61	4.5	-6	14.6
11/16/12	2.14	17.26	4.4	-70	12.6
09/17/14	5.44	13.96	7.2	-95	17.6
09/28/15	3.03	16.37	6.6	-94	18.0
09/07/16	7.53	11.87	14	-93	17.2
09/20/17	5.96	13.44	12	-47	16.6
09/21/18	5.72	13.68	11	-77	16.9
08/06/19	5.8	13.6	8.9	-70	15.7
09/14/20	6.1	13.3	5.9	-64	15.8
11/18/20	0.79	18.61	1.8	118	12.4
09/20/22	6.2	13.2	47	-121	20.1
09/06/23	6.17	13.23	30	-120	17.2
MW-7					
06/23/10	10.15	7.54	6.6	-90	15.7
09/09/10	10.09	7.6	5.3	-98	16.8
12/02/10	8.96	8.73	7.6	-87	14.3
03/23/11	8.89	8.8	7.1	-105	
06/15/11	9.49	8.2	7.6	-160	12.5
09/21/11	9.69	8	8.7	-137	16.8
12/06/11	9.49	8.2	8.5	-122	13.0
06/13/12	9.53	8.16	9.7	-149	13.9
11/15/12	9.4	8.29	12	-156	15.3
09/17/14	10.53	7.16	8.5	-148	17.6
09/28/15	10	7.69	7.9	-78	18.8
09/07/16	10.02	7.67	5.5	-120	16.9

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

	Depth	Groundwater	Dissolved Arsenic		
Well ID	**to Water**	**Surface Elevation**	**Concentration**	**ORP**	**Temp.**
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-7 (cont.)					
09/20/17	11.01	6.68	24	-92	17.6
09/20/18	10.42	7.27	10	-110	17.5
08/06/19	10.76	6.93	7.1	-111	16.6
08/06/19 Dup.	10.76	6.49	9	-111	16.6
09/15/20	11.2	8.43	11	-127	17.6
11/18/20	9.26	8.43	3.6	-126	13.8
09/21/22	10.68	7.01	2.9	-17	17.4
09/06/23	11.03	6.66	5.9	-116	18.1
MW-8					
06/23/10	3.74	13.81	2.7	-195	15.2
09/09/10	5.33	12.22	2.5	-174	17.6
12/02/10	3.02	14.53	2.5	-155	12.4
03/23/11	3.28	14.27	2.7	-146	
06/15/11	4.37	13.18	3.3	-212	13.0
09/21/11	5.84	11.71	2.0	-204	18.2
12/06/11	4.55	13	ND(<1.8)	-87	12.1
06/13/12	4.33	13.22	1.9	-211	14.4
11/15/12	2.97	14.58	1.4	-134	14.2
09/17/14	5.14	12.41	1.9	-165	18.3
09/28/15	4.23	13.32	2.1	-101	19.1
09/08/16	5.62	11.93	ND(<2.0)	-63	19.1
09/19/17	6.34	11.21	1.6	-117	17.8
09/20/18	5.64	11.91	2.0	-132	18.0
08/06/19	4.95	12.6	1.1	-150	18.2
09/15/20	5.42	12.13	ND(<1.0)	-176	18.5
11/18/20	2.11	15.44	ND(<1.0)	454	12.3
09/21/22	5.48	12.07	ND(<1.0)	-43	17.7
09/06/23	5.97	11.58	ND(<1.0)	-151	19.5
MW-9					
06/23/10	3.19	13.82	3.8	-179	14.2
09/09/10	4.81	12.2	2.8	-185	16.0
12/02/10	2.5	14.51	3.0	-145	12.5
03/23/11	2.75	14.26	5.5	-144	
06/15/11	3.84	13.17	6.2	-168	12.5
09/21/11	5.36	11.65	3.0	-202	16.3
12/06/11	4.02	12.99	3.8	-179	11.7
06/13/12	3.8	13.21	4.6	-174	13.0

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

	Depth	Groundwater	Dissolved Arsenic		
Well ID	**to Water**	**Surface Elevation**	**Concentration**	**ORP**	**Temp.**
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-9 (cont.)					
11/15/12	2.45	14.56	2.9	-196	12.5
09/17/14	4.62	12.39	2.1	-158	16.5
09/28/15	3.7	13.31	2.4	-129.1	16.26
09/08/16	5.1	11.91	2.8	-155.5	16.95
09/20/17	6.81	10.2	3.0	-156.9	15.18
09/21/18	5.1	11.91	2.8	-117	16.31
08/06/19	4.41	12.6	ND (<1.0)	-209.3	18.32
09/15/20	4.59	12.42	1.9	-172.8	16.7
11/18/20	1.57	15.44	2.3	-166.2	11.8
09/20/22	4.92	12.09	2.8	-157.1	17.3
09/06/23	5.47	11.54	1.1	-148	16.8
9/6/23 Dup.	--	--	5.0	--	--
MW-10					
06/15/11	8.5	9.06	2.1	36	13.0
09/21/11	9.82	7.74	ND(<1.8)	29	16.4
12/06/11	8.16	9.4	ND(<1.8)	57	12.0
06/13/12	8.7	8.86	1.5	-43	14.2
11/16/12	8.95	8.61	2.5	18	14.8
09/17/14	9.25	8.31	8.9	-93	18.0
09/28/15	8.25	9.31	11	-18	18.7
09/08/16	9.4	8.16	5.8	-95	18.9
09/16/17	11.07	6.49	8.1	-27	17.2
09/21/18	9.89	8.58	19	-69	17.8
08/06/19	10.74	6.82	10	-58	16.6
09/15/20	9.94	7.62	16	-62	17.3
11/19/20	9.96	7.6	17	47	13.2
09/20/22	11.19	6.37	7	-62	19.0
09/06/23	11.69	5.87	9	-30	18.5
MW-11					
06/15/11	9.36	7.98	4.3	-117	13.3
09/21/11	9.58	7.76	7.5	-165	17.7
12/06/11	9.29	8.05	5.2	-126	13.0
06/13/12	9.42	7.92	6.2	-150	14.5
11/16/12	9.43	7.91	7.9	-139	14.3
09/17/14	10.22	7.12	2.9	-143	17.5
09/28/15	9.88	7.46	7.9	-102	18.2
09/08/16	9.78	7.56	6.5	-144	22.3

Table B-10
Groundwater Elevation Data and Arsenic Analytical Results
210 McKenzie Avenue
City of Bellingham

Well ID	Depth to Water	Groundwater Surface Elevation	Dissolved Arsenic Concentration	ORP	Temp.
Date	(ft)	(ft msl)	(µg/L)	(mV)	(°C)
MW-11 (cont.)					
09/20/17	10.66	6.68	6.7	-94	16.7
09/20/18	10.21	7.13	11	-120	17.5
08/06/19	10.52	6.82	5.1	-117	17.3
09/15/20	10.93	6.41	3.4	-111	17.6
11/19/20	9.17	8.17	6.9	-132	13.6
09/20/22	10.31	7.03	2.8	11	19.9
09/06/23	10.73	6.61	8.3	-135	19.7
MW-12					
06/15/11	8.4	7.24	3.4	-97	13.8
09/21/11	8.73	6.91	ND(<1.8)	-116	17.9
12/06/11	8.5	7.14	1.8	-71	13.1
06/13/12	8.55	7.09	1.8	-55	14.1
11/16/12	8.24	7.4	1.5	-66	14.8
09/17/14	9.5	6.14	3.9	-102	17.9
09/28/15	8.91	6.73	2	-224	17.9
09/08/16	10.6	5.04	13	-93	18.3
09/19/17	9.03	6.61	3.4	10	17.4
09/21/18	9.32	6.32	6.4	-46	18.2
08/06/19	8.99	6.65	7.4	-64	18.0
09/15/20	9.38	6.26	16	-77	18.6
11/19/20	7.62	8.02	ND(<1.0)	40	14.1
09/20/22	9.18	6.46	17	-75	19.4
09/06/23	9.33	6.31	8.7	-48	19.5
MW-13					
11/18/20	1.32	20.8	ND(<1.0)	363	11.4
09/20/22	6.66	15.46	ND(<1.0)	99	20.8
09/06/23	6.74	15.38	ND(<1.0)	-29	12.9
MW-14					
11/18/20	3.6	16.11	1.8	126	13.5
09/20/22	6.95	12.76	3.8	145	19.4
09/06/23	5.67	14.04	ND(<1.0)	53	18.0

[(a)] Blank cell indicates meter error.

Table B-11
Washington State Soil Cleanup Levels
210 Mckenzie Avenue
City of Bellingham

Constituents of Concern	Target Cleanup Level (CUL)	Natural Background Levels*	MTCA Method A Soil CULs		MTCA Method B Unrestricted Use†		MTCA Method C Industrial†	
			Unrestricted Land Use	Industrial Properties	Ingestion	Ingestion	Ingestion	Ingestion
			(Table 740-1)	(Table 745-1)	(Carcinogen)	(Non-Carcinogen)	(Carcinogen)	(Non-Carcinogen)
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons (NWTPH)								
Gasoline Range	30/100‡	--	30/100‡	30/100‡	--	--	--	--
Diesel Range	2,000	--	2,000	2,000	--	--	--	--
Oil Range	2,000	--	2,000	2,000	--	--	--	--
Volatiles (EPA 8260)								
Benzene	0.03	--	0.03	0.03	18	320	2,400	14,000
Toluene	7	--	7	7	--	6,400	--	280,000
Ethylbenzene	6	--	6	6	--	8,000	--	350,000
Xylenes	9	--	9	9	--	16,000	--	700,000
Methylene Chloride	0.02	--	0.02	0.02	94	480	66,000	21,000
MTBE	0.1	--	0.1	0.1	560	--	73,000	--
Semi-Volatiles (EPA 8270)								
1-Methylnaphthalene	34	--	--	--	34.0	5,600	4,500	250,000
2-Methylnaphthalene	320	--	--	--	--	320	--	14,000
Naphthalenes	5§	--	5§	5§	--	1,600	--	70,000
Acenaphthene	4,800	--	--	--	--	4,800	--	210,000
Dibenzofuran	80	--	--	--	--	80	--	3,500
Fluorene	3,200	--	--	--	--	3,200	--	140,000
Anthracene	24,000	--	--	--	--	24,000	--	1,100,000
Fluoranthene	3,200	--	--	--	--	3,200	--	140,000
Pyrene	2,400	--	--	--	--	2,400	--	110,000
cPAH Total TEC	0.1	--	0.1	2	0.19	24	130	1,100

Table B-11
Washington State Soil Cleanup Levels
210 Mckenzie Avenue
City of Bellingham

Constituents of Concern	Target Cleanup Level (CUL)	Natural Background Levels*	MTCA Method A Soil CULs		MTCA Method B Unrestricted Use†		MTCA Method C Industrial†	
			Unrestricted Land Use	Industrial Properties	Ingestion	Ingestion	Ingestion	Ingestion
			(Table 740-1)	(Table 745-1)	(Carcinogen)	(Non-Carcinogen)	(Carcinogen)	(Non-Carcinogen)
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Metals (EPA 6000/7000 series)								
Antimony	32	--	--	--	--	32	--	1,400
Arsenic	20	8.5	20	20	0.67	24	88	1,100
Cadmium	2	0.1	2	2	--	80	--	3,500
Chromium	78.5	78.5	2,000◊	2,000◊	--	120,000◊	--	5,300,000
Copper	3,200	52.9	--	--	--	3,200	--	140,000
Lead	250	10.9	250	1,000	--	--	--	--
Mercury (inorganic)	2	0.1	2	2	--	--	--	--
Nickel	54.2	54.2	--	--	--	--	--	--
Zinc	24,000	85.6	--	--	--	24,000	--	1,100,000

(a) * Data from Natural Background Soil Metals Concentrations in Washington State (Ecology 1994) for "Group W".

(b) † Standard Method B and C soil concentrations are not CULs; however, they are concentrations which are protective of human health for the direct contact pathway (ingestion only). They are provided here for comparison purposes only.

(c) ‡ CUL dependent on BTEX concentrations.

(d) § CUL is for total mixture of Naphthalene, 1-Methylnaphthalene, & 2-Methylnaphthalene.

(e) ◊ CUL shown is for Chromium III; Chromium VI Method A CULs are 19 mg/kg.

(f) -- Not Established or Not Applicable.

(g) Shaded cells indicate the target CULs.

Table B-12
Soil Exposure Pathways and Points of Compliance
210 McKenzie Avenue
City of Bellingham

Exposure Pathway	Direct Contact	Leaching (Protection of Groundwater)	Protection of the Environment
Point of Compliance[(a)]	0' to 15' bgs	Throughout the Site	Standard: 0' to 15' bgs
			Conditional[(b)]: 0' to 6' bgs
Constituents of Concern	TPH VOCs SVOCs Antimony Arsenic Cadmium Chromium Copper Lead Zinc	Arsenic	Chromium Copper Lead Zinc

(a) WAC 173-340-740(6) & WAC 173-340-7490(4).

(b) For sites with institutional controls to prevent excavation of deeper soil, a conditional point of compliance may be set at the biologically active soil zone. This zone is assumed to extend to six feet. Ecology may approve a different depth based on site-specific information.

Table B-13
Groundwater and Surface Water Cleanup Levels
210 McKenzie Avenue
City of Bellingham

Constituents of Concern	Target Cleanup Level (CUL)	Groundwater ARAR		Method A	Method B Groundwater		Method C Groundwater		Surface Water ARAR*				Method B Surface Water		Method C Surface Water	
		Federal	State	Table Value	Standard Value	Standard Value	Standard Value	Standard Value	Aquatic Life - Marine		Human Health -		Standard Value	Standard Value	Standard Value	Standard Value
		Primary MCL	Primary MCL		(Carcinogen)	(Non-carcinogen)	(Carcinogen)	(Non-carcinogen)	Acute[†]	Chronic[‡]	CWA	NTR	(Carcinogen)	(Non-carcinogen)	(Carcinogen)	(Non-carcinogen)
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Total Petroleum Hydrocarbons																
Gasoline Range	800 / 1,000[§]	--	--	800 / 1,000[§]	--	--	--	--	--	--	--	--	--	--	--	--
Diesel Range	500	--	--	500	--	--	--	--	--	--	--	--	--	--	--	--
Oil Range	500	--	--	500	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																
Benzene	5	5	5	5	0.8	32	8	70	--	--	16	--	23	2,000	570	5,000
Toluene	1,000	1,000	1,000	1,000	--	640	--	1,400	--	--	520	130	--	19,000	--	48,000
Ethylbenzene	700	700	700	700	--	800	--	1,800	--	--	130	31	--	6,900	--	17,000
Xylenes	1,000	10,000	10,000	1,000	--	1,600	--	3,500	--	--	--	--	--	--	--	--
MTBE	20	--	--	20	24	--	240	--	--	--	--	--	--	--	--	--
SVOCs																
Acenaphthene	480	--	--	--	--	480	--	1,100	--	--	90	30	--	640	--	1,600
Anthracene	2,400	--	--	--	--	2,400	--	5,300	--	--	400	100	--	26,000	--	65,000
Fluoranthene	640	--	--	--	--	640	--	1,400	--	--	20	6	--	90	--	230
Fluorene	320	--	--	--	--	320	--	700	--	--	70	10	--	3,500	--	8,600
1-Methylnaphthalene	1.5	--	--	--	1.5	560	15	1,200	--	--	--	--	--	--	--	--
2-Methylnaphthalene	32	--	--	--	--	32	--	70	--	--	--	--	--	--	--	--
Total Naphthalenes	160	--	--	160	--	160	--	350	--	--	--	--	--	4,900	--	12,000
Pyrene	240	--	--	--	--	240	--	530	--	--	30	8	--	2,600	--	6,500
Metals																
Arsenic	5[□]	10	10	5	0.058	4.8	0.58	11	69	36	0.14	0.14	0.098	18	2.5	44
Cadmium	5	5	5	5	--	8	--	18	33	9.3	--	--	--	41	--	100
Total Chromium	50	100	100	50	--	--	--	--	--	--	--	--	--	--	--	--
Iron	11,000	--	--	--	--	11,000	--	25,000	--	--	--	--	--	--	--	--
Lead	15	15	15	15	--	--	--	--	210	8.1	--	--	--	--	--	--
Mercury	2	2	2	2	--	--	--	--	1.8	0.025	--	--	--	--	--	--

(a) * WAC 173-201A-240.

(b) † A 1-hour average concentration not to be exceeded more than once every three years on the average (for effluent).

(c) ‡ A 4-day average concentration not to be exceeded more than once every three years on the average (for effluent).

(d) § Cleanup level dependent on benzene concentrations.

(e) □ The target CUL for arsenic is the MTCA Method A CUL because it is based on natural background concentrations in Washington State. Other CULs shown are either below this level and are therefore unfeasible, or are significantly above this level and pose an unacceptable risk along anticipated exposure pathways.

(f) -- Not Established or Not Applicable.

Table B-14
Soil Cleanup Technology Screening Matrix
210 McKenzie Avenue
City of Bellingham

		Soil Cleanup Technology								
		No Action	***Monitored Natural Attenuation*** Natural degradation of contaminants at the Site is monitored through by establishing an environmental sampling plan.	***Institutional Controls*** Deed restrictions, posted notifications, and/or access restrictions.	***Engineering Controls (Soil Cap)*** Install an impervious soil cap made of asphalt or concrete. Natural attenuation is used to achieve cleanup levels.	***Off-site Management (Landfill)*** Physically remove all or some of contaminated soil. Replace with clean backfill. Transport excavated materials to licensed facility for landfilling as non-hazardous waste.	***Off-site Management (Treatment)*** Transport excavated materials to licensed facility for thermal desorption.	***Ex-Situ Soil Washing*** Contaminants may be dissolved or suspended into the wash solution, or they may be removed through gravity separation of contaminated soils.	***In-Situ Soil Flushing*** Clean water is injected and contaminated water is removed. Amendments may be added to enhance desorption or solubility.	***In-Situ Thermal Treatment*** Can utilize electrical resistance heating, hot air or hot water or steam injection, radio frequency heating, thermal conduction, or vitrification. Typically includes vapor extraction.
Initial Evaluation Criteria	**Protectiveness of Human Health and the Environment**	**Poor** ● Does not provide added protection of human health or the environment.	**Poor to Fair** ● Provides minimal protection of human health or the environment.	**Fair to Good** ● Minimizes direct contact exposure pathway.	**Good** ● Eliminates direct contact exposure pathway.	**Best** ● Eliminates direct contact exposure pathway. ● Contaminated materials removed from Site.	**Best** ● Eliminates direct contact exposure pathway. ● Contaminated materials removed from Site.	**Fair to Good** ● Upon completion organic chemicals are expected to be removed from Site. ● Metals likely to remain at the Site.	**Fair to Good** ● Upon completion organic chemicals are expected to be removed from Site. ● Metals likely to remain at the Site.	**Fair to Good** ● Upon completion organic chemicals are expected to be removed from Site. ● Metals likely to remain at the Site.
	Compliance with Cleanup Standards	**Poor** ● Site does not comply with cleanup standards.	**Poor to Fair** ● Degradation of organic contaminants possible. ● Degradation of metals above the groundwater table is unlikely.	**Poor** ● Controls would not affect levels of contamination.	**Fair to Good** ● Compliance is possible if WAC 173-340-740(6)(f) is met. ● Barrier installation would not reduce contaminant levels at the Site.	**Best** ● Contaminated materials removed from Site.	**Best** ● Contaminated materials removed from Site.	**Fair** ● Can treat organic and inorganic chemicals. ● Not an effective treatment for metals.	**Fair** ● Can treat organic and inorganic chemicals. ● Not an effective treatment for metals.	**Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.
	Effectiveness	**Poor** ● Does not provide added protection of human health or the environment.	**Poor to Fair** ● Degradation of organic contaminants possible. ● Degradation of metals above groundwater table is unlikely.	**Poor to Fair** ● Minimizes direct contact exposure pathway. ● Controls would not affect levels of contamination.	**Good** ● Eliminates direct contact exposure pathway. ● Minimizes infiltration of precipitation to the Site.	**Good to Best** ● Contaminated materials removed from Site. ● Possible recontamination if source material/extents not clearly established.	**Poor to Fair** ● Contaminated materials removed from Site. ● Proven effective for organic substances. ● Not effective for inorganic contaminants.	**Poor** ● Limited effectiveness demonstrated at pilot or full scale. ● Difficulty is increased due to complexity of multiple contaminants at Site.	**Poor** ● Low permeability and/or heterogeneous soils are difficult to treat. ● Difficulty is increased due to complexity of multiple contaminants at Site.	**Poor to Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.
	Implementability	**Best** ● Currently implemented.	**Good** ● Create environmental sampling plan and execute.	**Good** ● Create institutional control plan and execute.	**Good** ● Well established technology. ● Timeline for implementation is minimal.	**Good** ● Well established technology. ● Timeline for implementation is minimal. ● Possible interference with current Site occupants.	**Poor to Fair** ● Waste may not be accepted due to metals contamination and miscellaneous fill composition.	**Fair to Good** ● Site has space to accommodate washing equipment. ● Difficulty increased due to complexity of multiple contaminants at Site.	**Poor** ● Requires treatability test. ● Difficulty increased due to complexity of multiple contaminants at Site. ● Still an emerging technology.	**Poor to Fair** ● Established technology. ● Can work in heterogeneous and low permeability soil; use in miscellaneous fill material is unproven.
	Cost	**Best** ● Little to no monetary cost.	**Fair** ● Long-term environmental monitoring required.	**Good** ● Little monetary cost. ● Possible devaluation of property.	**Best** ● Utilizes established technologies. ● Costs are predictable. ● Allows for continuing use of Site, creating potential economic benefit.	**Poor** ● Large volume of soil will incur large expense. ● Cost depends upon level of contamination. ● Cost associated with dewatering and water disposal must be included.	**Poor** ● Large volume of soil will incur large expense. ● Cost depends upon level of contamination. ● Cost associated with dewatering and water disposal must be included.	**Poor** ● Large volume of soil will incur large expense. ● Cost depends upon level of contamination. ● Cost associated with dewatering and water disposal must be included.	**Fair** ● Costs dependent on amendments added and water disposal options.	**Poor** ● Very expensive technology to implement.

Table B-15
Groundwater Cleanup Technology Screening Matrix
210 McKenzie Avenue
City of Bellingham

		Groundwater Cleanup Technology								
		No Action	***Monitored Natural Attenuation***	***Institutional Controls***	***Engineering Controls (Soil Cap)***	***Removal with Off-site Treatment and Disposal***	***Removal/Treatment / Re-Injection***	***Permeable Reactive Barrier (PRB)***	***In-Situ Thermal Treatment***	***In-Situ Enhanced Bioremediation***
			Natural degradation of contaminants at the Site is monitored through by establishing an environmental sampling plan.	Deed restrictions, posted notifications, and/or access restrictions.	Install an impervious soil cap made of asphalt or concrete. Natural attenuation is used to achieve cleanup levels.	Groundwater is removed via pump then sent to water disposal facility.	Utilize one or more treatment methods including flocculation, microfiltration, nanofiltration, or reverse osmosis. Re-inject the treated groundwater on-site.	Install in-ground barrier made of zerovalent iron, placed hydraulically down gradient of contamination, to prevent contaminant migration.	Can utilize electrical resistance heating, hot air or hot water or steam injection, radio frequency heating, thermal conduction, or vitrification. Typically includes vapor extraction.	Increase breakdown of organic chemicals by microorganisms by introducing additional microorganisms and/or solution-based amendments which increase biological activity.
Initial Evaluation Criteria	***Protectiveness of Human Health and the Environment***	**Poor** ● Does not provide added protection of human health or the environment.	**Poor to Fair** ● Provides minimal protection of human health or the environment.	**Poor to Fair** ● Does not result in improvement of groundwater quality. ● Minimizes direct contact exposure pathway.	**Fair** ● Eliminates direct contact exposure pathways. ● Does not result in improvement of groundwater quality.	**Fair** ● Effective removal of arsenic contamination is uncertain.	**Poor to Fair** ● Effective removal of arsenic contamination is uncertain.	**Fair** ● Prevents off-site migration of dissolved arsenic.	**Fair to Good** ● Upon completion organic chemicals are expected to be removed from Site. ● Metals likely to remain at Site.	**Fair to Good** ● Upon completion organic chemicals are expected to be removed from Site. ● Metals likely to remain at Site.
Initial Evaluation Criteria	***Compliance with Cleanup Standards***	**Poor** ● Site does not comply with cleanup standards.	**Poor** ● Degradation of metals above the groundwater table is unlikely.	**Poor** ● Site does not comply with cleanup standards.	**Fair** ● Could comply if WAC 173-340-740(6)(f) is met. ● Barrier installation would not reduce contaminants levels at the Site.	**Fair** ● Effective removal of arsenic contamination is uncertain.	**Fair** ● Effective removal of arsenic contamination is uncertain.	**Poor** ● Does not treat areas up-gradient of PRB.	**Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.	**Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.
Initial Evaluation Criteria	***Effectiveness***	**Poor** ● Does not provide added protection of human health or the environment.	**Poor to Fair** ● Degradation of organic contaminants possible. ● Must determine rate and mechanisms of arsenic speciation. ● Must determine stability of immobilized arsenic.	**Good** ● Groundwater not expected to be used as potable. ● Contamination does not appear to be migrating offsite significantly.	**Good** ● Eliminates direct contact exposure pathway. ● Minimizes infiltration of precipitation to the Site.	**Poor to Good** ● Effective removal of arsenic contamination is uncertain. ● Possible recontamination if source material is not removed.	**Poor to Good** ● Effective removal of arsenic contamination is uncertain. ● Possible recontamination if source material is not removed.	**Fair** ● Proven effective barrier to dissolved arsenic migration. ● Does not treat areas up-gradient of PRB	**Poor to Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.	**Poor to Fair** ● Can destroy or volatilize organic chemicals. ● Not an effective treatment for metals.
Initial Evaluation Criteria	***Implementability***	**Best** ● Currently implemented	**Fair to Good** ● Create environmental sampling plan and execute. ● Must determine stability of immobilized arsenic.	**Good** ● Create institutional control plan and execute.	**Good** ● Well established technology. ● Timeline for implementation is minimal.	**Good** ● Many wells already in place can be used for water removal. ● Would require evaluation of water disposal options.	**Poor** ● Treatment system would require design and implementation. ● Would require Underground Injection Control permit.	**Fair** ● Construction of PRB trench could difficult due to location of sanitary sewer.	**Poor to Fair** ● Established technology. ● Can work in heterogeneous and low permeability soil; use in miscellaneous fill material is unproven.	**Poor to Fair** ● Established technology. ● Use in miscellaneous fill material is unproven. ● Would require Underground Injection Control permit.
Initial Evaluation Criteria	***Cost***	**Best** ● Little to no monetary cost.	**Fair** ● Long-term environmental monitoring required.	**Good** ● Little monetary cost. ● Possible devaluation of property.	**Best** ● Utilizes established technologies. ● Costs are predictable. ● Allows for continuing use of the Site, creating potential economic benefit.	**Poor to Fair** ● Offsite disposal of water could be cost prohibitive. ● Onsite disposal of water at WWTP needs to be evaluated. ● Predictable startup capital and O&M.	**Poor to Fair** ● Treatment system design and construction could be cost prohibitive.	**Poor to Fair** ● PRB system design and construction could be cost prohibitive. ● Ongoing O&M costs difficult to estimate.	**Poor** ● Very expensive technology to implement.	**Poor to Fair** ● Would require completion of treatability study. ● Number of treatment applications unknown. ● Ongoing O&M costs difficult to estimate.

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Area of Containment (sq. ft.)	*0*	*13,514*	*13,514*	*27,027*
Volume of Soil Removal (cy)	*7,800*	*4,386*	*4,004*	*382*
GENERAL REQUIREMENTS				
Protection of Human Health and the Environment *WAC 173-340-360(3)(a)(i)*	● All contaminated soil/fill removed from site, preventing contact with hazardous materials and recontamination of subject or adjacent properties. ● All contaminated soil/fill placed in lined and monitored landfill, transferring risk to licensed facility.	● TPH contaminated soil/fill material removed from site. ● Excavated soil/fill placed in lined and monitored landfill, transferring risk to licensed facility. ● Offsite migration of arsenic is minimized. Long-term effectiveness of treatment is unknown.	● Soil cap prevents contact with remaining contaminated soil and groundwater until facility expansion occurs, and following expansion work. ● Institutional controls restrict current and future access to contaminated materials. ● TPH contaminated soil/fill material removed from site. ● Excavated soil/fill placed in lined and monitored landfill, transferring risk to licensed facility.	● Soil cap prevents contact with contaminated soil and groundwater. ● OffSite migration of arsenic is minimized. Long-term effectiveness of treatment is unknown. ● Institutional controls restrict future access to contaminated materials.
Compliance with Cleanup Standards *WAC 173-340-360(3)(a)(ii)*	● All contaminated soil/fill removed from site. ● Contaminated groundwater not treated; however, removal of metal-containing fill may reduce dissolution of arsenic into groundwater. ● Site would meet soil cleanup standards. ● Site may meet arsenic standards for groundwater.	● Some source material removed from site. ● Effectiveness of natural attenuation at Site is unknown. ● Groundwater is treated on-site. Long-term effectiveness of treatment is unknown. ● Removal of TPH-containing fill may reduce dissolution of arsenic into groundwater. ● Site may meet soil cleanup standards. ● Site may meet arsenic standards for groundwater.	● Contaminated soil and groundwater remain on-site and are not treated in the near-term. ● Some source material removed from site. ● Removal of TPH-containing fill may reduce dissolution of arsenic into groundwater. ● Effectiveness of natural attenuation at Site is unknown. ● Site may meet soil cleanup standards. ● Site may meet arsenic standards for groundwater.	● Contaminated soil remains on-site and is not treated. ● Groundwater is treated on-Site. Long-term effectiveness of treatment is unknown. ● Effectiveness of natural attenuation at Site is unknown. ● Site may meet soil cleanup standards. ● Site may meet arsenic standards for groundwater.

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Compliance with Applicable State and Federal Laws *WAC 173-340-360(3)(a)(iii)*	● Site would comply with all applicable laws. ● Waste may be non-hazardous.	● Site would comply with all applicable laws. ● Waste may be non-hazardous.	● Site would comply with all applicable laws. ● Waste may be non-hazardous.	● Site would comply with all applicable laws.
Climate Change Resiliency *WAC 173-340-360(3)(a)(v)*	● No climate change impacts identified which would adversely affect the site or cleanup actions.	● No climate change impacts identified which would adversely affect the site or cleanup actions.	● No climate change impacts identified which would adversely affect the site or cleanup actions.	● No climate change impacts identified which would adversely affect the site or cleanup actions.
Provide for Compliance Monitoring *WAC 173-340-360(3)(a)(vi)*	● Groundwater monitoring could be conducted off-site to detect any contaminant migration. ● Soil samples would be collected after excavation to confirm cleanup.	● Soil samples would be collected after excavation to confirm cleanup. ● Groundwater monitoring would be conducted to document natural attenuation. ● Groundwater monitoring would be conducted west of the subject property to detect eventual breakthrough of arsenic through PRB.	● Soil samples would be collected after excavation to confirm cleanup. ● Groundwater monitoring would be conducted to document natural attenuation.	● Groundwater monitoring would be conducted to document natural attenuation. ● Groundwater monitoring would be conducted west of the subject property to detect eventual breakthrough of arsenic through PRB.
Reasonable Restoration Time Frame *WAC 173-340-360(4)*	● Shortest amount of time required to attain cleanup levels (all contaminated soil/fill will be removed).	● Construction could be completed in one year. ● Long-term effectiveness unknown. ● Institutional controls will be effective since Site is currently not disturbed by activities on the property and since Site will be occupied by WWTP in the future. ● Arsenic levels may rise after eventual removal of PRB.	● Restoration Time Frame will be based on facility expansion schedule. ● Long-term effectiveness unknown. ● Institutional controls will be effective since Site is currently not disturbed by activities on the property and since Site will be occupied by WWTP in the future.	● Longest amount of time required to attain cleanup levels. ● Long-term effectiveness unknown. ● Institutional controls will be effective since Site is currently not disturbed by activities on the property and since Site will be occupied by WWTP in the future. ● Arsenic levels may rise after eventual removal of PRB.

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Protectiveness *WAC 173-340-360(5)(d)(i)*	● Humans, wildlife, plants, and soil and groundwater biota are prevented from contacting hazardous substances at the Site. ● Entire amount of contaminated soil/fill is landfilled in another permitted location.	● Partial removal of contaminated soil reduces volume of hazardous substances at the site. Recontamination is possible. ● Dissolved arsenic is prevented from migrating off-site by PRB and removed from the environment, protecting humans and wildlife in nearby areas. ● Institutional controls prevent contact with contaminated soil and groundwater by humans and may prevent redevelopment of subject property in a way that would allow contact with contaminated materials. ● Effectiveness of natural attenuation at the Site is unknown.	● Partial removal of contaminated soil reduces volume of hazardous substances at the site. Recontamination is possible. ● Soil cap prevents contact with contaminated soil and groundwater by humans and wildlife. ● Institutional controls prevent contact with contaminated soil and groundwater by humans and may prevent redevelopment of subject property in a way that would allow contact with contaminated materials. ● Effectiveness of natural attenuation at the Site is unknown.	● Soil cap prevents contact with contaminated soil and groundwater by humans and wildlife. ● Dissolved arsenic is prevented from migrating off-site by PRB and removed from the environment, protecting humans and wildlife in nearby areas. ● Institutional controls prevent contact with contaminated soil and groundwater by humans and may prevent redevelopment of subject property in a way that would allow contact with contaminated materials. ● Effectiveness of natural attenuation at the Site is unknown.
Permanence *WAC 173-340-360(5)(d)(ii)*	● Complete removal of contaminated soil greatly reduces volume of hazardous substances at the Site and prevents recontamination. ● Entire amount of contaminated soil/fill is landfilled in another permitted location.	● Some source material removed from Site, reducing volume of hazardous substances at the Site. ● PRB remains in ground, can be replaced indefinitely, and removes arsenic from the environment. ● Life-span of PRB is increased due to source reduction. ● Installation of PRB does not prevent recontamination of Site by source materials and it is unknown if after the removal of PRB (once cleanup levels are achieved) the arsenic levels would rise once again. ● Effectiveness of natural attenuation at the Site is unknown.	● Some source material removed from Site, reducing volume of hazardous substances at the Site. ● Effectiveness of natural attenuation at the Site is unknown. ● Petroleum contamination has been shown not to be migrating off-site.	● PRB remains in ground, can be replaced indefinitely, and removes arsenic from the environment. ● Installation of PRB does not prevent recontamination of Site by source materials and it is unknown if after the removal of PRB (once cleanup levels are achieved) the arsenic levels would rise once again. ● Effectiveness of natural attenuation at the Site is unknown. ● Petroleum contamination has been shown not to be migrating off-site.

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Long-Term Effectiveness *WAC 173-340-360(5)(d)(iii)*	● Complete off-site disposal in an engineered, lined and monitored facility. ● Removal of all known contaminated soil/fill reduces likelihood of recontamination at the Site. ● Removal of materials contributing to dissolution of arsenic into groundwater will reduce risk of exceeding cleanup levels in future.	● On-site immobilization of arsenic via PRB. ● Partial off-site disposal in an engineered, lined and monitored facility. ● Partial removal of materials contributing to dissolution of arsenic into groundwater will reduce risk of exceeding cleanup levels in future. ● Installation of PRB does not prevent recontamination of Site by source materials and it is unknown if after the removal of PRB (once cleanup levels are achieved) the arsenic levels would rise once again. ● Institutional controls can be maintained indefinitely.	● Partial off-site disposal in an engineered, lined and monitored facility. ● Partial removal of materials contributing to dissolution of arsenic into groundwater will reduce risk of exceeding cleanup levels in future. ● On-site containment of petroleum substances via soil cap - can be maintained indefinitely. ● Institutional controls can be maintained indefinitely.	● On-site immobilization of arsenic via PRB. ● On-site containment of petroleum substances via soil cap - can be maintained indefinitely. ● Institutional controls can be maintained indefinitely. ● Installation of PRB does not prevent recontamination of Site by source materials and it is unknown if after the removal of PRB (once cleanup levels are achieved) the arsenic levels would rise once again.
Management of Implementatio Risk *WAC 173-340-360(5)(d)(iv)*	● Possible exposure of workers during excavation to contaminants mitigated by appropriate PPE as necessary. ● Contaminated material placed directly into trucks for transport to disposal facility, minimizing risk to environment at the site. ● Excavated material deposited as-is at licensed disposal facility, transferring risk of further environmental contamination off-site (the risk is reduced since the disposal facility is lined and monitored).	● Possible exposure of workers during excavation to contaminants mitigated by appropriate PPE as necessary. ● Contaminated material placed directly into trucks for transport to disposal facility, minimizing risk to environment at the site. ● Excavated material deposited as-is at licensed disposal facility, transferring risk of further environmental contamination off-site (the risk is reduced since the disposal facility is lined and monitored).	● Possible exposure of workers during excavation to contaminants mitigated by appropriate PPE as necessary. ● Contaminated material placed directly into trucks for transport to disposal facility, minimizing risk to environment at the site. ● Excavated material deposited as-is at licensed disposal facility, transferring risk of further environmental contamination off-site (the risk is reduced since the disposal facility is lined and monitored).	● Possible exposure of workers during excavation to contaminants mitigated by appropriate PPE as necessary. ● Reduced exposure of hazardous materials to workers and environment due to minimal soil disturbances. ● Contaminated material placed directly into trucks for transport to disposal facility, minimizing risk to environment at the site. ● Excavated material deposited as-is at licensed disposal facility, transferring risk of further environmental contamination off-site (the risk is reduced since the disposal facility is lined and monitored).

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Technical and Administrative Implementability *WAC 173-340-360(5)(d)(v)*	● Fully implementable.	● May be considered less practical since Site is expected to be used for expansion of WWTP, so future design of WWTP would need to be engineered to allow for maintenance/replacement of PRB. ● Institutional controls could easily be implemented as part of the WWTP expansion.	● Fully implementable. ● May be considered more practical since Site is expected to be used for expansion of WWTP in the future. ● Institutional controls could easily be implemented as part of the WWTP expansion.	● May be considered less practical since Site is expected to be used for expansion of WWTP, so future design of WWTP would need to be engineered to allow for maintenance/replacement of PRB. ● Institutional controls could easily be implemented as part of the WWTP expansion.
Consideration of Public Concerns *WAC 173-340-360(3)(d)*	● For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. ● Maximizes removal and disposal of impacted soils. No public concerns regarding protecting human health and the environment are foreseeable. ● Potential concerns over traffic increase from excavation activities. ● Potential concerns over increased noise from excavation activities. ● No likely vulnerable populations or overburdened communities identified.	● For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. ● Possible concerns over limited removal of impacted soils addressed by Site access and deed restrictions. ● Potential concerns over traffic increase from excavation activities. ● Potential concerns over increased noise from excavation activities. ● No likely vulnerable populations or overburdened communities identified.	● For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. ● Possible concerns over impacted soil remaining in place addressed by cap, Site access restrictions, and deed restrictions. ● Public may be concerned that arsenic in groundwater is not directly addressed. ● Potential concerns over traffic increase from excavation activities. ● Potential concerns over increased noise from excavation activities. ● No likely vulnerable populations or overburdened communities identified.	● For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. ● Possible concerns over impacted soils remaining in place addressed by cap, Site access restrictions, and deed restrictions. ● Potential concerns over traffic increase from excavation activities. ● Potential concerns over increased noise from excavation activities. ● No likely vulnerable populations or overburdened communities identified.

Table B-16
Revised Evaluation of Remedial Alternatives
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Cleanup Action Alternatives			
	Alternative #1 (Baseline)	***Alternative #2***	***Alternative #3***	***Alternative #4***
Description:	*Complete Soil Excavation with Off-Site Disposal*	*Partial Soil Excavation with Off-Site Disposal and On-Site Installation of PRB with Institutional Constrols and Natural Attenuation*	*Partial Soil Excavation with Off-Site Disposal and On-Site Soil Capping with Institutional Controls and Natural Attenuation*	*Soil Capping and PRB with Institutional Controls and Natural Attenuation*
Cost *WAC 173-340-360(5)(d)(vi)*	● Excavation: $1,755,000 ● Backfill: $468,000 ● Lab/Labor: $307,818 ● Waste Characterization: $55,000 ● Engineering/Design: $50,000 ● Fill & Grade Permit: $2,500 ● SEPA: $10,000 ● Stormwater System/SWPPP: $10,000 ● Site Prep/Well Abandonment: $10,000 ● Dewatering/Disposal: $250,000 ● Site Closure/Well Abandonment: $50,000	● Excavation: $986,900 ● Backfill: $263,173 ● Lab/Labor: $356,943 ● Waste Characterization: $38,000 ● Engineering/Design: $50,000 ● Fill & Grade Permit: $2,500 ● SEPA: $10,000 ● Stormwater System/SWPPP: $10,000 ● PRB Installation: $2,284,000 ● Institutional Controls: $7,500 ● Site Prep/Well Abandonment: $10,000 ● Dewatering/Disposal: $100,000 ● Site Closure/Well Abandonment: $50,000	● Excavation: $900,900 ● Backfill: $240,240 ● Lab/Labor: $556,535 ● Waste Characterization: $38,000 ● Engineering/Design: $50,000 ● Fill & Grade Permit: $2,500 ● SEPA: $10,000 ● Stormwater System/SWPPP: $90,000 ● Asphalt Cap: $64,000 ● Cap Maintenance: $5,000 ● Institutional Controls: $7,500 ● Site Prep/Well Abandonment: $10,000 ● Dewatering/Disposal: $100,000 ● Site Closure/Well Abandonment: $50,000	● Excavation: $86,000 ● Backfill: $22,933 ● Lab/Labor: $272,840 ● Waste Characterization: $10,000 ● Engineering/Design: $50,000 ● Fill & Grade Permit: $2,500 ● SEPA: $10,000 ● Stormwater System/SWPPP: $90,000 ● PRB Installation: $2,284,000 ● Asphalt Cap: $135,000 ● Cap Maintenance: $5,000 ● Institutional Controls: $7,500 ● Site Prep/Well Abandonment: $10,000 ● Dewatering/Disposal: $50,000 ● Site Closure/Well Abandonment: $50,000
Total Estimated Cost (including 20% contingency):*	*$3,562,000*	*$5,002,000*	*$2,490,000*	*$3,703,000*

[a] * See Appendix N for breakdown of costs associated with each alternative.

Table B-17
Disproportionate Cost Analysis
210 McKenzie Avenue
City of Bellingham

Evaluation Criteria	Weighting	Cleanup Action Alternatives							
		Alternative #1 *Complete Excavation*		***Alternative #2*** *Partial Excavation, PRB, Institutional Controls*		***Alternative #3*** *Partial Excavation, Soil Cap, Institutional Controls*		***Alternative #4*** *Soil Cap, PRB, Institutional Controls*	
		Unweighted Rank	*Weighted Value*	*Unweighted Rank*	*Weighted Value*	*Unweighted Rank*	*Weighted Value*	*Unweighted Rank*	*Weighted Value*
Protectiveness *WAC 173-340-360(5)(d)(i)*	0.3	3	0.9	2	0.6	1	0.3	1	0.3
Permanence *WAC 173-340-360(5)(d)(ii)*	0.2	3	0.6	2	0.4	2	0.4	2	0.4
Effectiveness over the long term *WAC 173-340-360(5)(d)(iii)*	0.2	3	0.6	2	0.4	2	0.4	2	0.4
Management of implementation risks *WAC 173-340-360(5)(d)(iv)*	0.1	2	0.2	2	0.2	2	0.2	2	0.2
Technical and administrative implementability *WAC 173-340-360(5)(d)(v)*	0.1	2	0.2	1	0.1	2	0.2	1	0.1
Total Weighted Score	**0.9**	**2.5**		**1.7**		**1.5**		**1.4**	
Total Costs ($1,000,000) *WAC 173-340-360(5)(d)(vi)*		$3.56		$5.00		$2.49		$3.70	
Ratio of Cleanup Effectiveness to Cost *Ratio = Total Weighted Score / Total Cost*		**0.70**		**0.34**		**0.60**		**0.38**	

0 (poor) - The remedial alternative does not meet the specific criterion.

1 (fair) - The remedial alternative meets most, but not all of the criterieon.

2 (good) - The remedial alternative meets the criterion, but not to the highest degree.

3 (best) - The remedial alternative meets the critereon to a high degree.

APPENDIX C
HISTORICAL DOCUMENTS

210 McKenzie Avenue Historical Documents:

- CH2M Hill. August 1989. Draft Post Point Pollution Control Plant Secondary Expansion Geotechnical Data Report.
- W.D. Purnell & Associates, Inc. January 5, 1994. Environmental Site Assessment: Phase II – 206 and 208 McKenzie Avenue, Bellingham, Washington.
- W.D. Purnell & Associates, Inc. December 16, 1994. Final Report: On-Site Thermal Desorption of Contaminated Soil, 206 & 208 McKenzie Avenue, Bellingham, Washington.
- Whatcom Environmental Services. June 26, 2006. Phase I Environmental Site Assessment Homeport Properties Inc. 210 McKenzie Avenue Bellingham, Washington.
- Whatcom Environmental Services. June 20, 2007a. 210 McKenzie Avenue – Underground Storage Tank Removal and Site Assessment.
- Whatcom Environmental Services. June 25, 2007b. Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington.
- Whatcom Environmental Services. November 1, 2007c. 210 McKenzie Avenue – Surface Soil Remediation and Disposal Action.
- Whatcom Environmental Services. February 11, 2009. Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016).
- Whatcom Environmental Services. March 15, 2010. 2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016).
- Whatcom Environmental Services. March 18, 2011. 2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016).
- Whatcom Environmental Services. January 12, 2012. 2011 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016 /VCP #NW2179).
- Whatcom Environmental Services. December 12, 2012. Remedial Investigation and Feasibility Study, 200/210 McKenzie Avenue, Bellingham, Washington (FSID #151016 / VCP #NW2179).

- Whatcom Environmental Services. December 31, 2012. 2012 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (FSID ID #151016 / VCP #NW2179).
- Whatcom Environmental Services. December 12, 2012 - Revised March 30, 2016. Remedial Investigation and Feasibility Study, 200/210 McKenzie Avenue, Bellingham, Washington (FSID #151016 /VCP #NW2179).
- Whatcom Environmental Services. November 5, 2021. Site Assessment Report, Post Point Resource Recovery Plant Biosolids Project, 210 McKenzie Avenue, Bellingham, Washington (FSID ID #151016).
- Whatcom Environmental Services. October 17, 2022. RE: Annual Groundwater Monitoring – 210 McKenzie Avenue, Bellingham, Washington.
- Whatcom Environmental Services. October 25, 2023. RE: 2023 Groundwater Monitoring Data Summary– 210 McKenzie Avenue, Bellingham, Washington.

DRAFT

POST POINT
POLLUTION CONTROL PLANT
SECONDARY EXPANSION
GEOTECHNICAL DATA REPORT

by

CH2M HILL

August, 1989

INTRODUCTION

This geotechnical data report describes the subsurface conditions at the City of Bellingham's Post Point Pollution Control Plant (PCP), secondary expansion. CH2M HILL was authorized to perform the field exploration and prepare this report under the terms of a contract dated June 25, 1989, between CH2M HILL and the City of Bellingham. Our scope of work has included:

* Review of existing soil and geologic data
* A field exploration program to characterize subsurface conditions
* Laboratory testing of selected samples for classification and determination of consolidation and strength characteristics
* Presentation of the subsurface data and laboratory testing in a geotechnical report.

LIMITATIONS

This report has been prepared for the exclusive use of the City of Bellingham for specific application to the secondary expansion of the existing Post Point pollution control plant. Our work has been performed in accordance with generally accepted geotechnical engineering and geologic practice. No other warranty, expressed or implied, is made.

The information contained in this report is based on the data obtained from field exploration programs consisting of test pits and test borings. The information obtained from these programs indicate the subsurface conditions only at specific locations and times and only to the depths penetrated. They do not necessarily reflect strata variations that may exist between test locations.

CH2M HILL is not responsible for any claims, damages, or liability associated with the interpretation of subsurface data or reuse of the subsurface data by others.

PROJECT DESCRIPTION

The expansion to the City of Bellingham's Post Point pollution control plant will upgrade the plant to secondary treatment. The proposed expansion will involve construction of three secondary clarifiers, an activated sludge basin, an oxygen generation facility, a screening facility, a storage building and additions to the solids handling facility and the administration building. There will also be a number of other structures, including a pipe gallery, various pumping stations, and equipment buildings. The foundations for these structures will vary in depth, with some being at grade and others being as much as 15 to 20 feet below grade.

SITE DESCRIPTION

The existing Post Point PCP and expansion area is located in South Bellingham and is bounded on the west by Bellingham Bay, on the east by 4th Street, on the north by McKenzie Avenue, and on the south by a wooded bluff. The Burlington-Northern Railroad has two sets of tracks located along the west boundary of the site next to the bay. Also on the west side of the site is a tidal pond approximately 3 acres in size. General vegetation on the site is limited to tall grass and weeds. There was no standing water on the site at the time of the exploration.

The treatment plant expansion will occur primarily in the vacant field located to the west and south of the existing treatment plant. It is our understanding from the review of the existing data and from conversations with local people from Bellingham and those associated with the construction of the existing plant that the site was previously the location of a tidal marsh and peat bog. Prior to the land being sold to the City of Bellingham, fill was placed on the soft soils to bring the site to about the existing elevation. At the location of the present treatment plant and in the vacant field directly to the west, the upper layer of fill and peat soils was removed for the original construction of the plant. The approximate limits of the fill and peat removal are illustrated in figure 1. After the fill and peat were removed, an engineered fill was placed to raise the elevation of the site to the required grade. Fill for the construction of the Post Point PCP was taken from the hillslopes located to the east and south of the existing plant. This site grading was completed under a site preparation contract completed prior to the construction of the existing plant.

Additional information regarding this work can be found in the contract documents for Site Preparation for the construction of the Post Point PCP (CH2M HILL, 1972).

PREVIOUS DATA

A subsurface exploration was conducted in July of 1971 for the design of the existing Post Point PCP. The field exploration consisted of eleven test borings and five backhoe pits. The results of that exploration are presented in a geotechnical report dated October 4, 1971 (CH2M HILL, 1971). Ten additional test borings were drilled in December of 1971. The results of the December 1971 exploration are presented in the contract documents for the Post Point Pollution Control Plant, dated April, 1972.

Test boring and test pit logs, a site location map of field explorations, and laboratory test data from the 1971 field exploration programs are presented in Appendix A of this report.

GEOLOGIC SETTING

The subsurface materials present beneath the Post Point wastewater treatment plant expansion area have been deposited by the action of glaciers and water, and modified at the surface with man-made fill. It is our understanding much of the fill consists of material taken from the surrounding hillsides and generally consists of a mixture of clay, sand and gravel. Below the fill is a layer of soft peat. The peat is underlain by an interbedded deposit of varying thickness of clay, silt and thin layers of sand, all containing occasional gravel, cobbles and boulders. This unit is composed of material which melted out of floating glacial ice and was deposited on the sea floor (Easterbrook, 1976). As a result, the material is not highly compacted. Below this soft zone of clay and silt is a very dense till deposit consisting of silty sand to sandy silt.

FIELD EXPLORATION

Eighteen test borings and thirteen test pits were performed to determine the subsurface conditions in the expansion area and at the plant site for the Post Point wastewater treatment plant. The test explorations were located in areas where the new structures are planned to be and at a location in the plant site where settlement and pipe breakage has occurred.

Locations of the test borings and test pits are shown on figure 1. Elevations for all test pits and test borings B-1 through B-13 were determined by survey methods using the City of Bellingham's datum. Elevations for test borings B-14 through B-18 were determined from the site contour map.

TEST BORINGS

The test borings were drilled with a CME-75 four-wheel drive truck mounted drill rig using mud rotary techniques. The test borings were drilled in two phases. The first phase of drilling took place from June 14 to June 28, 1989. During this period, test borings B-1 through B-13 were drilled. The remainder of the test borings were drilled from August 1 to August 4, 1989. The test borings are numbered B-1 to B-18 and range in depth from 21.5 to 130.3 feet.

Both undisturbed and disturbed samples were taken at 2-1/2 to 5 foot intervals. Disturbed samples were obtained with a 2-inch O.D. split spoon sampler performed in accordance with the standard penetration test (ASTM D-1586). In material where the gravels were large enough so that a sample could not be obtained with a 2-inch sampler, a 3-inch O.D. Dames and Moore sampler was used in conjunction with the 140 pound hammer. Undisturbed samples of soft cohesive material were obtained with a 3-inch diameter, 30-inch long steel tube, Osterberg piston sampler.

Samples were classified visually in the field according to the Unified Soil Classification System by CH2M HILL geotechnical personnel. The visual classification of the field boring logs were revised as necessary based on the results of the laboratory testing. Logs of the test borings are presented in Appendix B.

Observation wells were installed in selected test borings. At locations where the test borings were deeper than 55 feet, a shallow observation well was drilled adjacent to the test boring to the depths indicated on the test boring logs. These observation wells are shown on Figure 1 by the prefix OW. Location and construction of the observation wells are shown on the test boring logs.

TEST PITS

The test pits were excavated on July 13 to 14, 1989, with a Ford 655a backhoe with a 16-inch bucket, owned and operated by the City of Bellingham. The test pits were excavated near the approximate limits of peat removal as delineated in the contract documents for the existing plant to determine

whether the boundaries were accurate. The test pits where also excavated to determine the character of the fill overlying the native material.

SUBSURFACE CONDITIONS

The area proposed for the majority of the construction of the new structures for the Post Point PCP secondary expansion is in the vacant area to the south and west of the existing plant. Recent man-made alterations have modified this area to its current condition. The results of our field exploration indicate the following about the subsurface conditions at the Post Point PCP-Secondary Expansion area.

In the vacant area, the upper 18-inches to 3-feet of soil consisted of a brown, hard to stiff, gravelly silt to silt with gravel fill. Cobbles and boulders were occasionally found in this unit and were present in test pits TP-4, TP-5, and TP-6. Minor amounts of wood waste and broken shells were found in TP-2. At the existing plant site, this silt and gravel fill layer was not found in the test pits excavated. Instead, from 4 to 6-inches of a silt topsoil was present.

Below the silt topsoil or upper silt with gravel layer, the fill layer consists primarily of a moist to wet, brown to gray, sandy lean clay to a clayey sand with up to 35 percent gravel, with local areas of silty sand to well to poorly graded gravel and sand with silt. In the area where the fill has been placed over the peat (see figure 1), the fill is typically 3 to 4 feet thick, extending to a depth of 5 to 6 feet. In those areas where the peat has been removed, the fill was present to the top of the underlying materials. The thickness of the fill in these areas varied depending upon the location, however in the test pits excavated the fill was present to depths of 8-1/2 to 13-1/2 feet below the ground surface. The determination of the boundary between the fill and underlying native material in the test borings was difficult because of the poor sample recovery due to the presence of gravel within the unit and to the similarity of the fill at some locations with the underlying native materials. However, with the borings excavated in fill at the plant site (B-1, B-2, B-3, B-5, and B-18), it appears the fill extended to depths ranging from 14 to 19 feet below the ground surface. In addition, with the exception of B-5, the fill recovered from the test borings was primarily silty sand with gravel to poorly to well graded gravel with sand and silt. Test boring B-4 is located in an area that appears to have been cut, rather than filled, according to drawings in the 1972 Site Preparation Contract Documents.

Below the fill, native material at the original ground surface consists of brown, moist to wet, soft, peat. When excavated from the test pits and recovered from the samples in the test borings, the peat had a strong sulfur odor. The peat was present in test pits TP-2, TP-3, TP-5, TP-6, TP-7, and TP-9, and in test borings B-9 and B-13. The peat may have been present in the other test borings drilled in the area outside the zone of peat removal (see figure 1), however, it may have been missed in the drilling because of the 5 foot sampling interval.

Below the peat is an interbedded sequence composed primarily of gray, wet, soft to stiff, fat to lean clay with sand and gravel, with thin interbeds of silt and loose, poorly graded sand. This unit was present in all test borings extending below the fill except for B-4. The thickness of the unit varied erratically across the site from 14 to 103 feet. It was thinnest in the southwest portion of the site in test borings B-11 and B-12, but thickened and deepened to 103 and 100 feet in near-by test borings B-14 and B-16, respectively. The interbedded clay sequence did not extend as far east as test boring B-4. The material encountered in B-4 consisted of medium dense to very dense, brown, moist, silt sand with gravel with a thin interbed of poorly graded sand.

Below the interbedded clay sequence, is a similar interbedded sequence of stiff to very hard, gray, wet, silt, lean clay, fat clay, silty sand to poorly graded sand with silt, all with some sand and gravel. The major difference between this sequence and the overlying sequence is the increase in consistency and the higher percentage of coarser material. This unit was present in test boring B-6, B-7, B-8, B-9, B-12, B-14, and B-17 and varied in thickness from 4 to 30 feet.

The deep test borings were terminated in hard to very dense, gray, moist, silt, silty sand, silty gravel, or poorly to well graded sand or gravel. The unit was typically penetrated about 10 feet prior to finishing the test boring. As with the overlying units, the depth at which the unit was encountered was erratic and varied from 29 to 116 feet corresponding to an elevation of 12.7 feet below sea level to 101 feet below sea level.

GROUNDWATER

Water levels were measured in test borings with observation wells installed during the subsurface exploration. Procedures used in the construction of the observation wells are noted on the test boring logs in Appendix B. Water

levels measured in test pits at the time of excavation and in test borings which have observation wells are shown in Table 1. Fluctuations in these water levels can be expected seasonally in response to precipitation. Due to the proximity of the site to the ocean, minor fluctuations in the water table can also be expected with tidal fluctuations.

Water seepage into the excavations should be anticipated. The amount of water seepage will depend on the depth of excavation, time and duration of construction, and the type of soil present. Seepage should be anticipated at the location of permeable sand and gravel lenses within the units present. Caving and sloughing of the test pit walls occurred in some of the test pits at the time of this exploration.

Water levels measured at the site in the test pits and test borings varied from 2.5 to 11.1 feet below the ground surface. Water level elevations at the site varied from 5.1 to 21.5 feet based on the City of Bellingham's datum. Water levels were highest in those test borings and test pits located closer to the ocean and tidal lagoon, and deepened in the test borings to the east. Water levels generally were higher in test pits than test borings and may reflect a perched water condition.

LABORATORY TESTING

Laboratory testing was performed on soil samples selected to classify the subsurface units and to evaluate their engineering properties. Laboratory tests included natural moisture content, Atterberg limits, percent passing the No. 200 sieve, grain size analyses, one-dimensional consolidation tests and consolidated-undrained shear tests. Laboratory testing was performed in accordance with applicable ASTM standards. The results of the laboratory testing are presented in Table B-1 in Appendix C. Plots of grain size analyses, Atterberg limits, consolidation tests and triaxial shear tests are also presented in Appendix C.

Table 1
WATER TABLE ELEVATIONS

Test Hole	Date	Approximate Water Level Elevation (feet)	Depth Below Ground Surface (feet)
B-2	6-29-89	8.5	7.1
	7-21-89	8.8	6.8
	8-02-89	8.8	6.8
B-4	6-29-89	21.5	11.1
	7-21-89	dry	dry
	8-02-89	dry	dry
B-5	6-29-89	14.7	4.7
	7-21-89	14.4	5.0
	8-02-89	14.1	5.3
B-6	7-21-89	17.8	5.8
	8-02-89	14.5	9.1
B-7	7-21-89	16.6	5.8
	8-02-89	13.4	9.0
B-9	7-21-89	14.6	4.0
	8-02-89	14.5	4.1
B-10	6-29-89	13.0	2.8
	7-21-89	13.3	2.5
	8-02-89	13.3	2.5
B-13	6-29-89	9.4	3.5
	7-21-89	9.4	3.5
	8-02-89	9.6	3.3
B-14	8-04-89	10.7*	3.8
B-15	8-04-89	12.8*	3.2
TP-2	7-13-89	7.4	6.0
TP-3	7-13-89	5.1	8.0
TP-4	7-13-89	7.1	7.0
TP-6	7-13-89	9.3	6.0
TP-7	7-13-89	11.1	5.0
TP-8	7-14-89	7.3	10.0
TP-9	7-14-89	10.4	7.0
TP-12	7-14-89	7.3	10.0

*elevation estimated from site contour map

REFERENCES

Cornell, Howland, Hayes, and Merryfield, Bellingham Sewage Treatment Plant, Post Point Soils Investigation, prepared for the City of Bellingham, Engineering Department, October 4, 1971.

Cornell, Howland, Hayes, and Merryfield, Contract Documents for the Construction of the Post Point Pollution Control Plant, Site Preparation, prepared for the City of Bellingham, January, 1972.

Cornell, Howland, Hayes, and Merryfield, City of Bellingham, Washington, Post Point Pollution Control Plant, Contract Documents, prepared for the City of Bellingham, April, 1972.

Easterbrook, D.J., Geologic Map of Western Whatcom County, U.S. Geological Survey, Miscellaneous Investigation Series, Map I-854-B, Scale, 1:62,500, 1976.

NOTE:

1) TEST BORINGS B-1 THROUGH B-14, OBSERVATION WELLS, OW-6, 7, 9, 10, 13 AND TEST PITS TP-1 THROUGH TP-13 WERE LOCATED BY SURVEY METHODS. TEST BORINGS B-14 THROUGH B-18 WERE LOCATED BY PACING FROM THE NEAREST STRUCTURE.

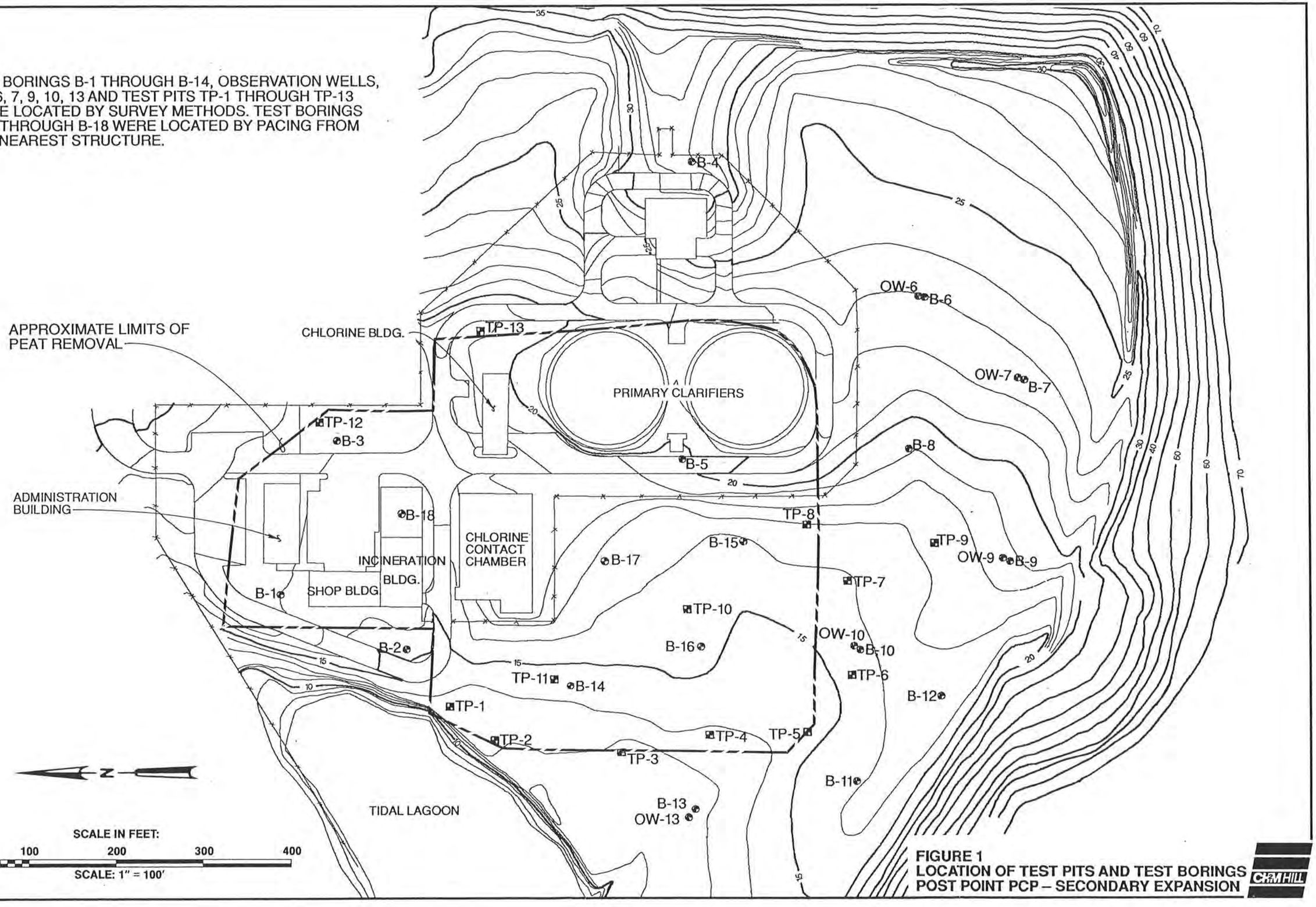
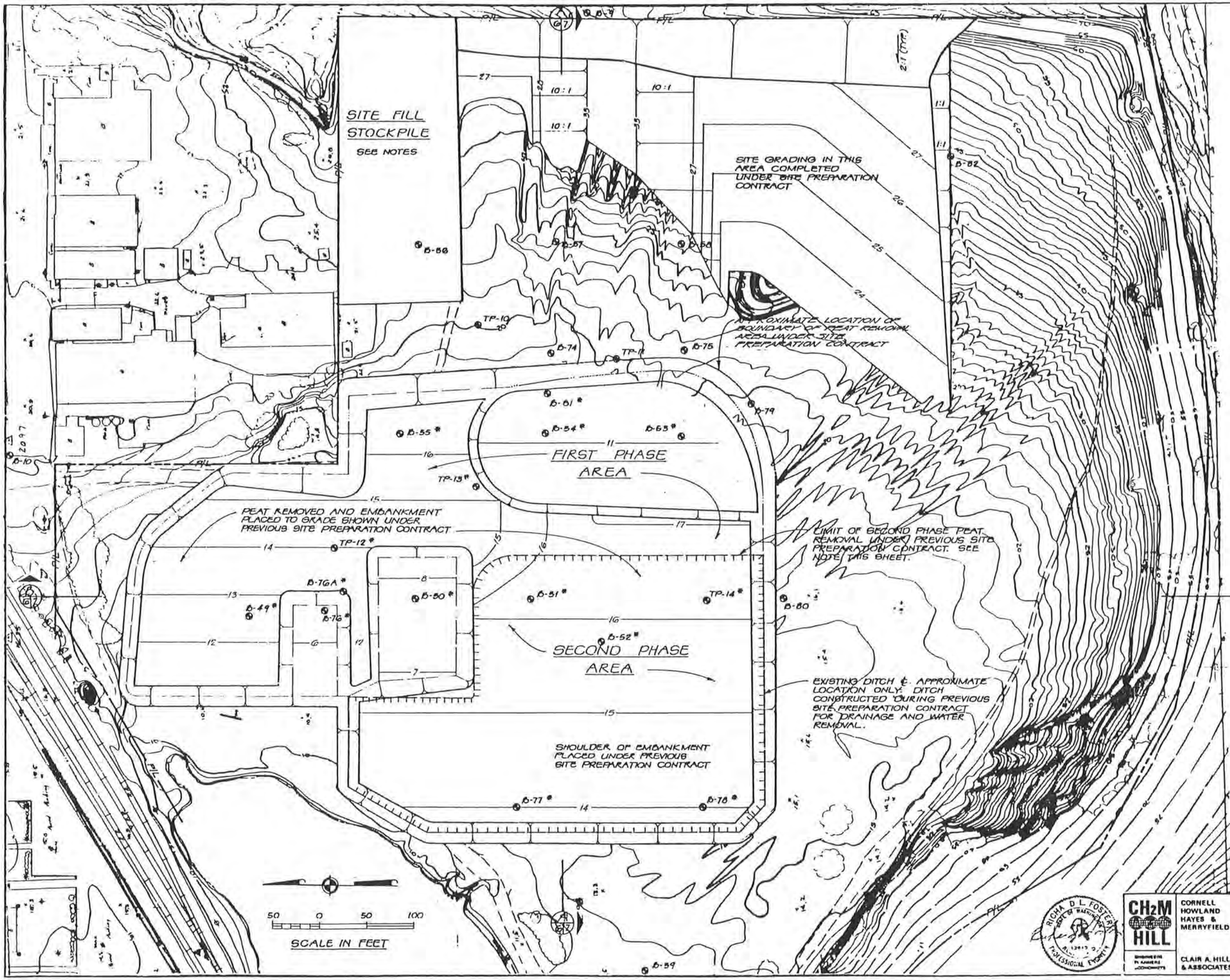


FIGURE 1
LOCATION OF TEST PITS AND TEST BORINGS
POST POINT PCP – SECONDARY EXPANSION

CH2MHILL

APPENDIX A
DATA FROM PREVIOUS EXPLORATIONS



LEGEND

SECOND PHASE AREA — PREVIOUS SITE PREPARATION CONTRACT ADMINISTERED IN TWO PHASES. FIRST PHASE SCHEDULED FOR COMPLETION BY 30 JUNE 1972 SECOND PHASE AREA OUTLINED ON THIS SHEET SCHEDULED FOR COMPLETION BY 21 AUGUST 1972.

⊗ TEST HOLE LOCATION & DESIGNATION:
B-54 TEST BORING
TP-13 TEST PIT
SEE SHTS. 8 & 9 FOR TEST HOLE LOGS

* INDICATES THAT THE TEST HOLE LOG HAS BEEN ALTERED BY WORK PERFORMED IN PREVIOUS SITE PREPARATION CONTRACT.

NOTES

1. ALL CONTOURS SHOWN ARE EXISTING.
2. SITE FILL STOCKPILE. MATERIAL STOCKPILED IN THIS AREA BY OTHERS IS TO BE USED TO COMPLETE GENERAL SITE FILL & SITE GRADING. SUFFICIENT MATERIAL WILL BE AVAILABLE TO COMPLETE GRADING.
3. ALL ELEVATIONS SHOWN ARE CITY OF BELLINGHAM DATUM.
4. NOT SHOWN IS A V-DITCH APPROX. 6.8 FT. DEEP WITH APPROX. 1.5 : 1 SIDE SLOPE. THIS DITCH EXTENDS TO THE TIDAL LAGOON EASTERLY ALONG THE BASE OF THE HILL AT THE SOUTH END OF THE SITE TO WITHIN APPROX 350 FT. OF THE EASTERLY BOUNDARY OF THE SITE. THIS DITCH SHALL BE LEFT OPEN BY THE SITE PREPARATION CONTRACTOR. THE SCHEDULE T CONTRACTOR SHALL FILL THE DITCH TO CONFORM WITH THE GRADES ON SHEETS 4 & 5.

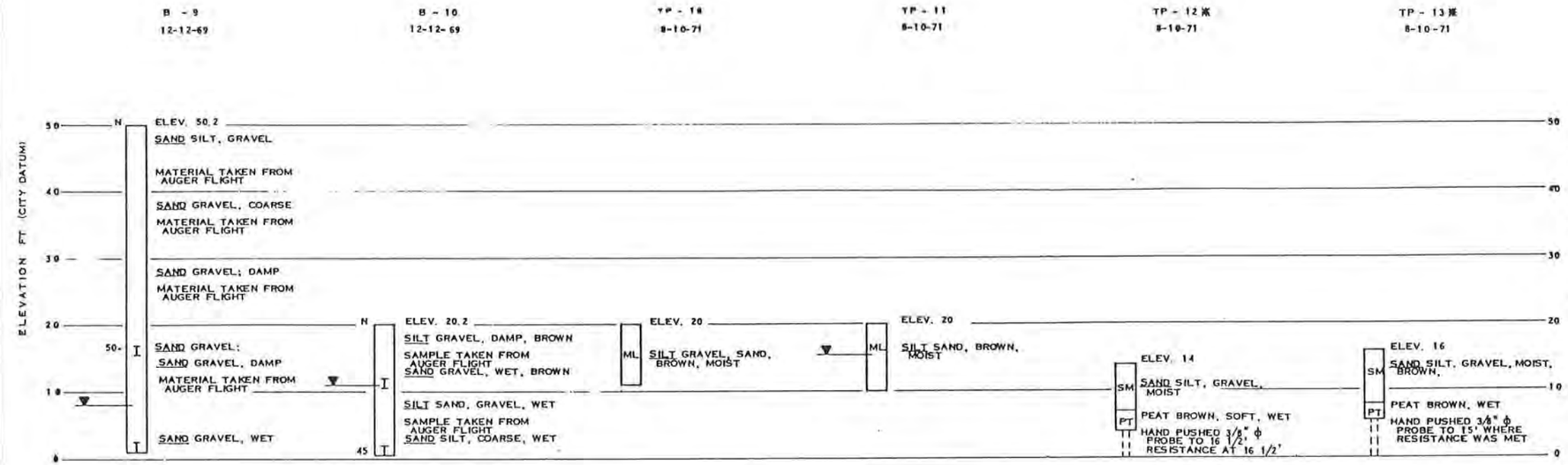
NO.	DATE	REVISION	BY	APD
1	APRIL 75	RECORD DRAWINGS	DNB	GRG

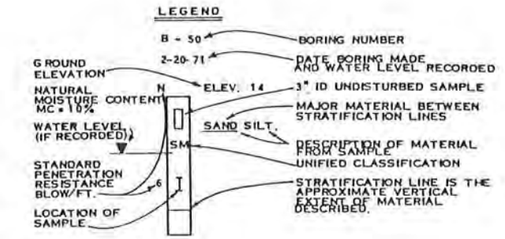
CH2M HILL — CORNELL HOWLAND HAYES & MERRYFIELD — CLAIR A. HILL & ASSOCIATES

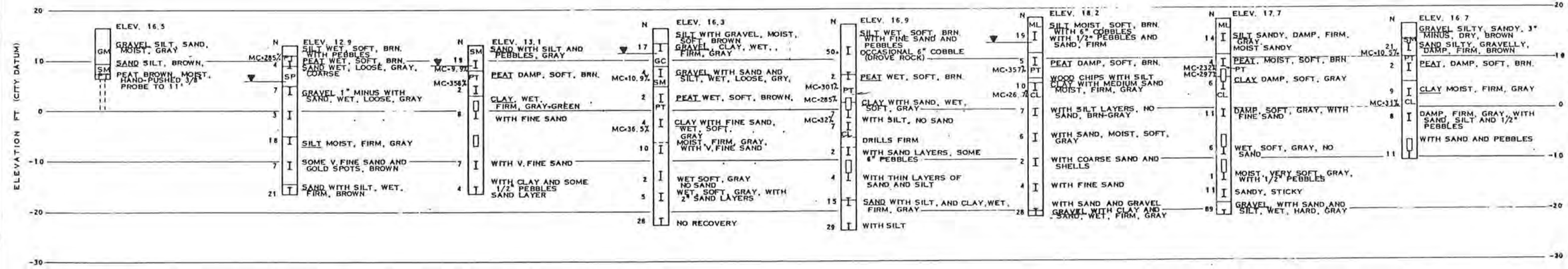
CITY OF BELLINGHAM, WASHINGTON
POST POINT POLLUTION CONTROL PLANT
SCHEDULE T

EXISTING SITE CONDITIONS PLAN

DES. JGG
DR. CPC
CK. JDB
JOB NO. 50198.1
DRAWING NO. C 8198-2
SHEET 5 OF 113
DATE: APRIL 1972
SCALE: AS SHOWN







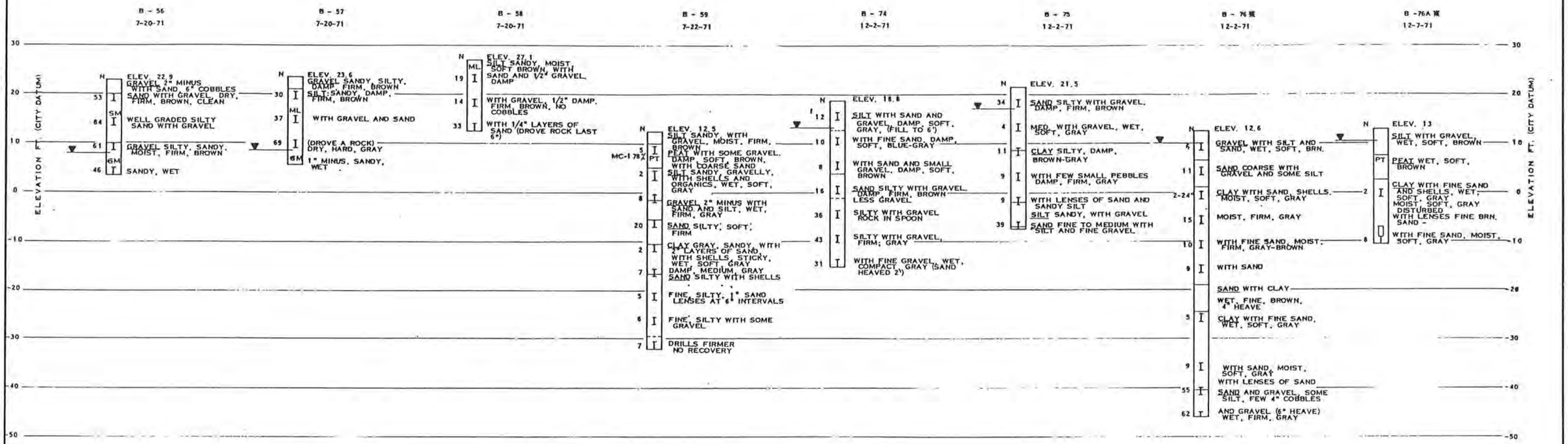
NOTE: THIS LOG REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE CHARACTER OF MATERIALS ENCOUNTERED IN THE TEST HOLES. NO WARRANTY, EXPRESSED OR IMPLIED, IS GIVEN IN REGARD TO ANY VARIATIONS WHICH MAY OCCUR BETWEEN TEST HOLE SITES.

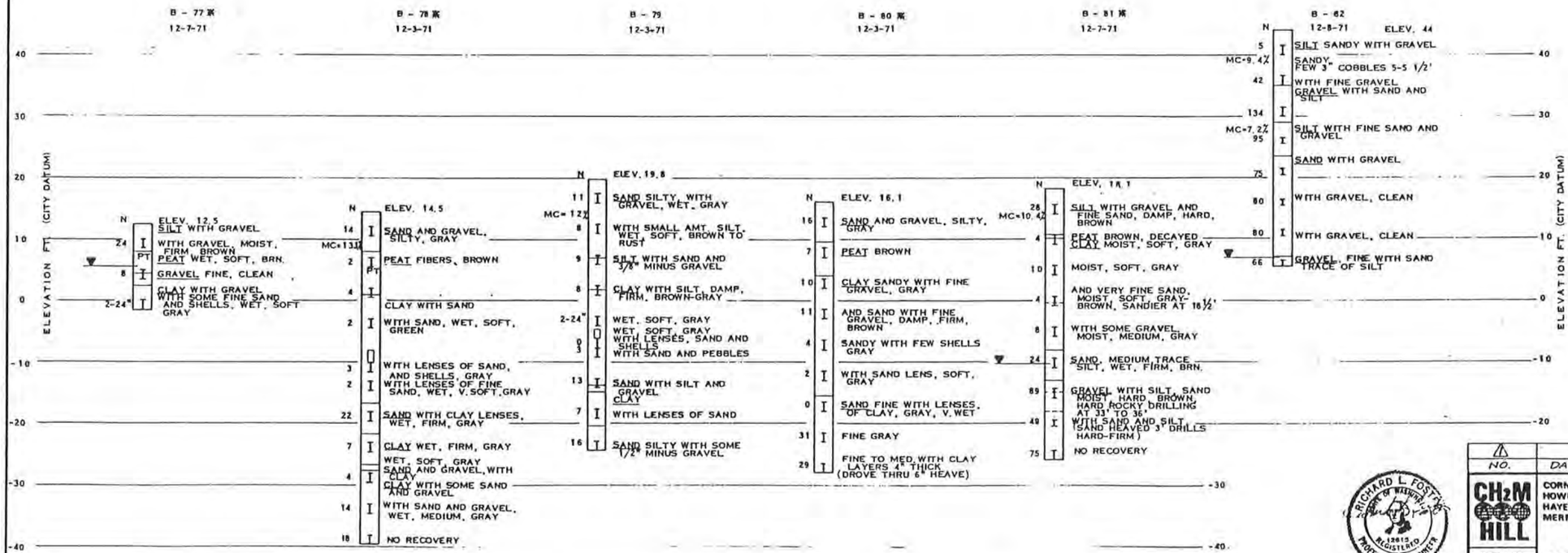
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

※ INDICATES THAT THOSE TEST HOLE LOGS SHOW THE MATERIALS THAT EXISTED PRIOR TO THE SITE PREPARATION WHICH BEGAN APPROXIMATELY APRIL 1972.

RICHARD L. FOSTER — STATE OF WASHINGTON — 12915 — REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	RECORD DRAWINGS REVISION	DNB BY	APD.
CH2M HILL — ENGINEERS PLANNERS ECONOMISTS	CORNELL HOWLAND HAYES & MERRYFIELD; CLAIR A HILL & ASSOCIATES	CITY OF BELLINGHAM, WASHINGTON POST POINT POLLUTION CONTROL PLANT SCHEDULE T EXISTING SITE CONDITIONS - TEST HOLE LOGS	DES. MDG DR. [illegible] CK. RLF JOB NO. 6198.1	SHEET 8 OF 113 SHEETS DATE APRIL 1972 SCALE AS SHOWN DRAWING NO. C 6198-2





NOTE: THIS LOG REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE CHARACTER OF MATERIALS ENCOUNTERED IN THE TEST HOLES. NO WARRANTY, EXPRESSED OR IMPLIED, IS GIVEN IN REGARD TO ANY VARIATIONS WHICH MAY OCCUR BETWEEN TEST HOLE SITES

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

RICHARD L. FOSTER — STATE OF WASHINGTON — 12813 — REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY	APD
⚠		RECORD DRAWINGS	DNB	

CH2M HILL — ENGINEERS PLANNERS ECONOMISTS

CORNELL HOWLAND HAYES & MERRYFIELD

CLAIR A. HILL & ASSOCIATES

CITY OF BELLINGHAM, WASHINGTON
POST POINT POLLUTION CONTROL PLANT
SCHEDULE T

EXISTING SITE CONDITIONS - TEST HOLE LOGS

DES. MDG | DR MLN | CC RLF | DATE APRIL 1972 | SCALE AS SHOWN | DRAWING NO. C 6198-2

SHEET 9 OF 112

6198.1

S6198.5

PROJECT Bellingham STP STATION & OFFSET

BORING NO. B-50 GROUND ELEVATION 13.1

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~(AASHTO)~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE L.L. (%)	γ_d (LB/FT^3)	STRENGTH *q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
50-1	3-4.5	Brn Silty Sand w/Gravel	SM	19	·	10								
50-2	8-9.5	Brown Peat	Pt	2		358								
50-3	13-15.5	Gray Clay	CL	Push	29	33	49	·	1.4			3.0	0.3	
50-4	15.5-17	Gray Sandy Clay	CL	8										
50-5	18-19.5	Gray Clay	CL	Push										
50-6	23-24.5	Brown Clay	CL	7										
50-7	28-29.5	Gray-Brown Clay	CL	4		34								

* Torvane reading

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~(AASHO)~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE L.L. (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION Cc	CONSOLIDATION Cv (FT^2/YR)
51-1	3-4.5	GRAY-BROWN CLAYEY GRAVEL	GC	17										
	5	G.W.T. 7-21-71												
51-2	8-9.5	GRAY SILTY SAND W/GRAVEL	SM	10		11								
51-3	13-14.5	DARK BROWN Peat	Pt	1										
51-4	18-19.5	GRAY SANDY CLAY	CL	4		37								
51-5	23-24.5	GRAY SANDY CLAY	CL	10	19	22	34							
51-6	28-29.5	GRAY CLAY	CL	1	19	44	37							
51-7	33-34.5	GRAY CLAY	CL	5										
51-8	35-39.5	No Recovery Poss. Clean Sand		25										

JOB # 6198.5

RCK

PROJECT BELLINGHAM STP
BORING NO. B-51
STATION & OFFSET
GROUND ELEVATION 16.29

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHTO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE L.L. (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ϕ (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
52-2	9.5-11	DARK BROWN PEAT	Pt	2		301								
52-3	14.5-17	GRAY SANDY CLAY	CL	Push	21	37	29	90	.82					
52-4	17-18.5	GRAY CLAY	CL	7										
52-5	19.5-21	GRAY CLAY	CL	7		31								
52-6	24.5-26	GRAY CLAY	CL	2		44								
52-7	27-28.5	GRAY CLAY	CL	Push	22	47	45	76	1.0					
52-8	29.5-31	GRAY CLAY	CL	4		44								
52-9	34.5-36	GRAY SANDY CLAY	CL	15										
52-10	39.5-41	GRAY SILTY SAND	SM	29										
		NO G.W.T. RECORDED												
				* TORVANE Reading										

JOB# 5619.8.5

RCK

PROJECT BELLINGHAM STP

STATION & OFFSET

BORING NO. B-52

GROUND ELEVATION 16.9

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHTO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE w (%)	MOISTURE LL (%)	γ_d (LB/FT³)	STRENGTH q_u (K/FT²)	STRENGTH C (K/FT²)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT²)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT²/YR)
53-1	3-4.5	BROWN SANDY SILT W/GRAVEL	ML	19										
53-2	8-9.5	DARK BROWN PEAT	Pt	5		357								
53-3	13-14.5	GRAY-BROWN SANDY CLAY	CL	10		27								
53-4	18-19.5	BROWN CLAY	CH	7	27	44	55							
53-5	23-24.5	GRAY-BROWN SANDY CLAY W/GRAVEL	CL	6		31								
53-6	28-30	GRAY SANDY CLAY W/GRAVEL	CL	1	21	46	40							
53-7	33-34.5	GRAY SANDY CLAY W/GRAVEL	CL	4										
53-8	38-39.5	GRAY CLAYEY SAND W/GRAVEL	SC	28										
		NO G.W.T. RECORDED												

RCK JOB # 6198.5

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-53 GROUND ELEVATION 18.21

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE LL (%)	γ_d (LB/FT³)	STRENGTH q_u (K/FT²)	STRENGTH C (K/FT²)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT²)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT²/YR)
54-1	3-4.5	BROWN GRAVELLY SILT	ML	14										
54-2	8-9.5	BROWN GRAVELLY SILT/DARK BROWN Peat	ML/Pt	4		Pt 232								
54-3	10-12.5	TOP: DARK BROWN PEAT	Pt	Push		Pt 297		16					2.1	
		BOT: GRAY SANDY CLAY	CL	"					.80					
54-4	13-14.5	GRAY CLAY	CL	6										
54-5	18-19.5	BROWN CLAY	CL	11										
54-6	23-25.5	BROWN CLAY	CL	Push	19	35	37	86	2.0					
54-7	26-27.5	BROWN CLAY	CL	6										
54-8	28-30.5	BROWN CLAY	CL	Push	21	41	48	79	.92			6.0	0.46	
54-9	30.5-32	GRAY SANDY CLAY	CL	1	14	20	21							
54-10	34-35.5	GRAY SANDY CLAY w/GRAVEL	CL	11										
54-11	38-39	GRAY SANDY GRAVEL	GP	89										
		NO G.W.T. RECORDED												
				* TORVANE Reading										

TOB# 56198.5

RCK

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-54 GROUND ELEVATION 17.67

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE L.L. (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION P_c (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
55-1	3-4.5	BROWN SILTY SAND W/GRAVEL	SM	21		10.5								
55-2	8-9.5	DARK BROWN PEAT	Pt	2										
55-3	13-14.5	GRAY BROWN CLAY	CH	9	27	31	52							
55-4	18-19.5	GRAY-BROWN CLAY	CH	8										
55-5	23-25.5	GRAY-BROWN SANDY CLAY	CL	Push	17	28	27	104						
55-6	25.5-27.0	GRAY-BROWN SANDY CLAY	CL	11										
		NO G.W.T. RECORDED												

Top of SL @ 9.5

RCW

PROJECT BELLINGHAM STP
BORING NO. B-55
STATION & OFFSET
GROUND ELEVATION 16.67

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L (%)	MOISTURE W (%)	MOISTURE LL (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ϕ (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
56-1	3-4.5	BROWN GRAVELLY SAND	SP	53										
BAG	3'±	SILTY SAND W/GRAVEL	SM											
56-2	8-9.5	BROWN SILTY GRAVEL	GM	84		NA								
56-3	13-14.5	BROWN SILTY GRAVEL	GM	61		NA								
	15	G.W.T. 7-20-71												
56-4	18-19.5	BROWN SILTY GRAVEL	GM	46										

RCK Job# SG198.5

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-56 GROUND ELEVATION 22.89

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE LL (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
S7-1	3-4.5	BROWN SANDY CLAY	CL	30										
S7-2	8-9.5	BROWN SANDY SILT	ML	37										
S7-3	13-14.5	BROWN SILTY GRAVEL	GM	69										
	15'	GWT 7-20-71												

JOB # 5419B.5

RCK

PROJECT BELLINGHAM STP

STATION & OFFSET

BORING NO. B-57

GROUND ELEVATION 23.56

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L (%)	MOISTURE W (%)	MOISTURE L.L (%)	γ_d (LB/FT³)	STRENGTH q_u (K/FT²)	STRENGTH C (K/FT²)	STRENGTH ϕ (DEGREE)	CONSOLIDATION P_c (K/FT²)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT²/YR)
58-1	3-4.5	BROWN SANDY SILT	ML	19										
58-2	8-9.5	BROWN SANDY SILT	ML	14										
58-3	13-14.5	BROWN SANDY SILT W/ GRAVEL	ML	33										
		NO G.W.T. RECORDED												

JOB # 96198.5

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-58 GROUND ELEVATION 27.08

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~(AASHTO)~~ Unified	"N" (BL/FT.)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE LL (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION P_c (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
59-1	3-4.5	DARK BROWN Peat	Pt	5		178								
59-2	8-9.5	GRAY GRAVELLY SILT	ML	1										
59-3	13-14.5	GRAY SILTY GRAVEL	GM	8										
59-4	18-19.5	GRAY SILT / BROWN SAND	ML/SP	8/32										
59-5	23-24.5	GRAY CLAY W/SAND	CL	2	19	29	30							
59-6	28-29.5	GRAY CLAY W/SAND	CL	7										
59-7	33-34.5	GRAY CLAY/GRAY FINE SAND	CL/SP	7/8		CY/32								
59-8	38-39.5	GRAY SANDY CLAY W/GRAVEL	CL	6										
59-9	43-44.5	No RECOVERY	—	7										
		NO G.W.T. RECORDED												

RU Test # 6 @ 9.5

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-59 GROUND ELEVATION

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

PROJECT Bellingham STP STATION & OFFSET Test Pits

BORING NO. As Noted GROUND ELEVATION

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

CHM

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~(AASHTO)~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE W (%)	MOISTURE L.L. (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION P_c (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
		BH-10												
10-1	3.5	Brown Silt w/Gravel	ML											
10-2	8.0	Brn Sandy Silt w/Gravel	ML											
		BH-11												
11-1	7.5	Brn Sandy Silt w/Organics	ML											
		BH-12												
12-1	3.0	Gray Silty Sand w/Gravel	SM											
12-2	8-10	Dark Brown Peat	Pt			419		12.						
		BH-13												
13-1	6	Gray Silty Sand w/Gravel	SM											
13-2	9.5	Dark Brn Peat	Pt											
		BH-14												
14-1	3.5	Brown silty Gravel	GM											
14-2	7	Brown Silty Sand	SM											

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION (AASHO)	"N" (BL/FT)	MOISTURE			γ_d (LB/FT^3)	STRENGTH			CONSOLIDATION		
					PL (%)	W (%)	LL (%)		q_u (K/FT^2)	C (K/FT^2)	ϕ (DEGREE)	Pc (K/FT^2)	C_c	C_v (FT^2/YR)
10-1	3.5'	BROWN SILT W/GRAVEL	ML											
10-2	8'-10'	BROWN SANDY SILT W/GRAVEL	ML											
11-1	7.5'	BROWN SANDY SILT W/ORGANICS	ML											
12-1	3'	GRAY SILTY SAND W/GRAVEL	SM											
12-2	8-10'	DARK BROWN PEAT	OH			419		12						
13-1	6'	GRAY SILTY SAND W/GRAVEL	SM											
13-2	9.5	DARK BROWN PEAT	OH											
14-1	3.5'	BROWN SILTY GRAVEL	GM											
14-2	7'	BROWN SILTY SAND W/ GRAVEL	SM											

RCK TOB# SW93.5

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. BH-10, 11, 12, 13 & 14 GROUND ELEVATION

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION (AASHO)	"N" (BL/FT)	MOISTURE			γ_d (LB/FT^3)	STRENGTH			CONSOLIDATION		
					P.L. (%)	W (%)	L.L. (%)		q_u (K/FT^2)	C (K/FT^2)	ø (DEGREE)	Pc (K/FT^2)	Cc	Cv (FT^2/YR)
50-1	3'-4.5'	BROWN SILTY SAND w/GRAVEL	SM	19		10								
50-2	8'-9.5	BROWN Peat	Pt	2		358								
									(Torvane)					
50-3	13-15.5	GRAY CLAYEY SILT	ML	Push	29	33	49		1.9			3.0	.30	200
50-4	15.5-17.0	GRAY SANDY CLAY	CL	8										
	17	G.W.T. 7-20-71												
50-5	18'-19.5'	GRAY CLAY w/ORGANICS	CL	Push										
50-6	23-24.5	BROWN SANDY CLAY	CL	7										
50-7	28-29.5	GRAY-BROWN CLAY	CL	4		34								

JOB# S619.3.5

RLK

PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-50 GROUND ELEVATION 13.08

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

SAMPLE NUMBER	DEPTH (FEET)	DESCRIPTION OF MATERIAL	CLASSIFICATION ~~AASHO~~ Unified	"N" (BL/FT)	MOISTURE P.L. (%)	MOISTURE w (%)	MOISTURE LL (%)	γ_d (LB/FT^3)	STRENGTH q_u (K/FT^2)	STRENGTH C (K/FT^2)	STRENGTH ø (DEGREE)	CONSOLIDATION Pc (K/FT^2)	CONSOLIDATION C_c	CONSOLIDATION C_v (FT^2/YR)
49-1	3-4.5	PEAT W/ GRAVEL	Pt	4		285								
	7.0	SWT- 7-21-71												
49-2	8-9.5	GRAY GRAVELLY SAND w/SILT	SP	7										
49-3	18-19.5	BROWN SILT	ML	3										
49-4	23-24.5	GRAY-BROWN CLAY	CL	7										
49-4	28-29.5	GRAY-BROWN SANDY CLAY	CL	21										

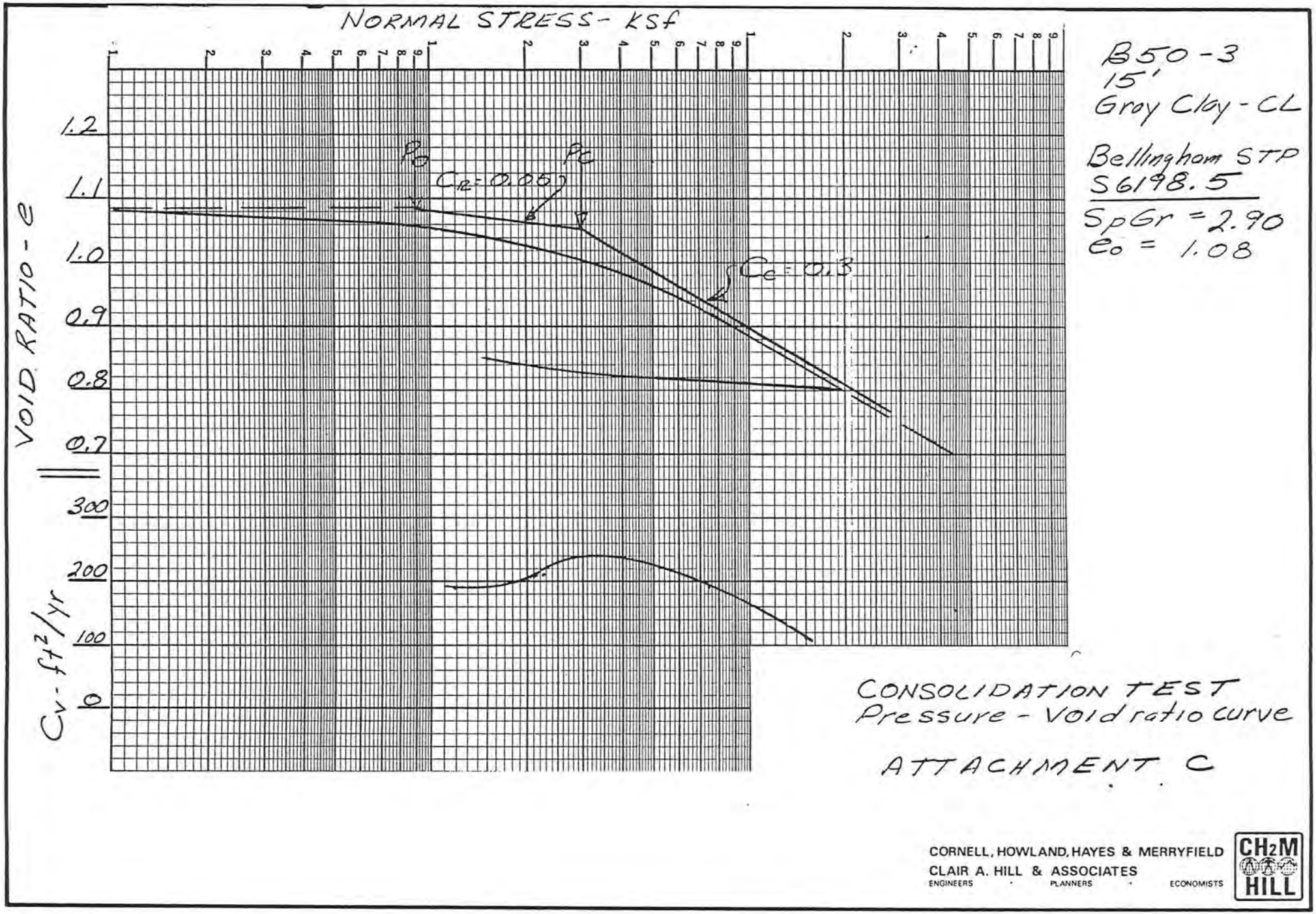
PROJECT BELLINGHAM STP STATION & OFFSET

BORING NO. B-49 GROUND ELEVATION 12.87

SOIL TEST DATA

CORNELL, HOWLAND, HAYES & MERRYFIELD
SEATTLE PORTLAND CORVALLIS BOISE

RCK Job# SG198.5



B50-3
15'
Gray Clay - CL

Bellingham STP
S6198.5

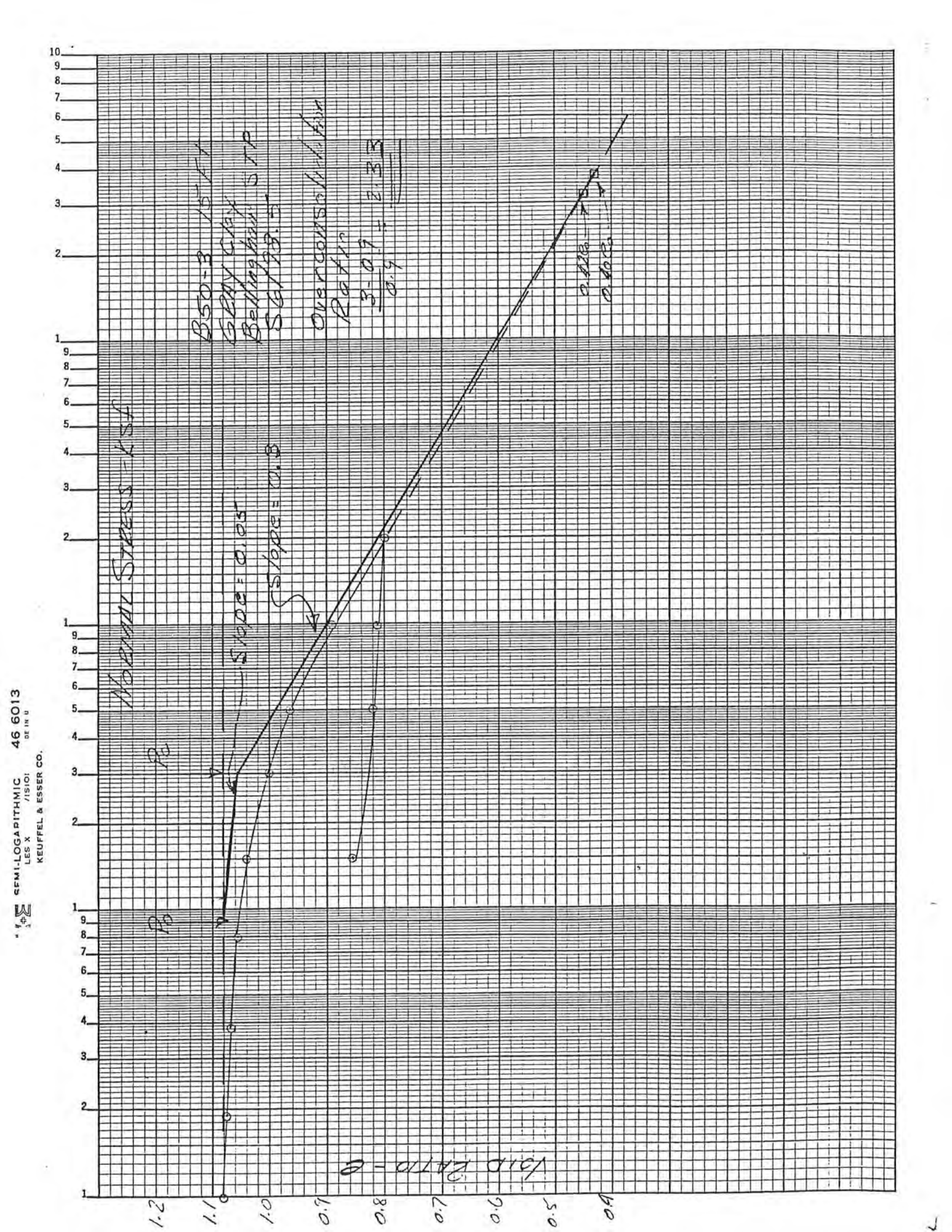
SpGr = 2.90
e_o = 1.08

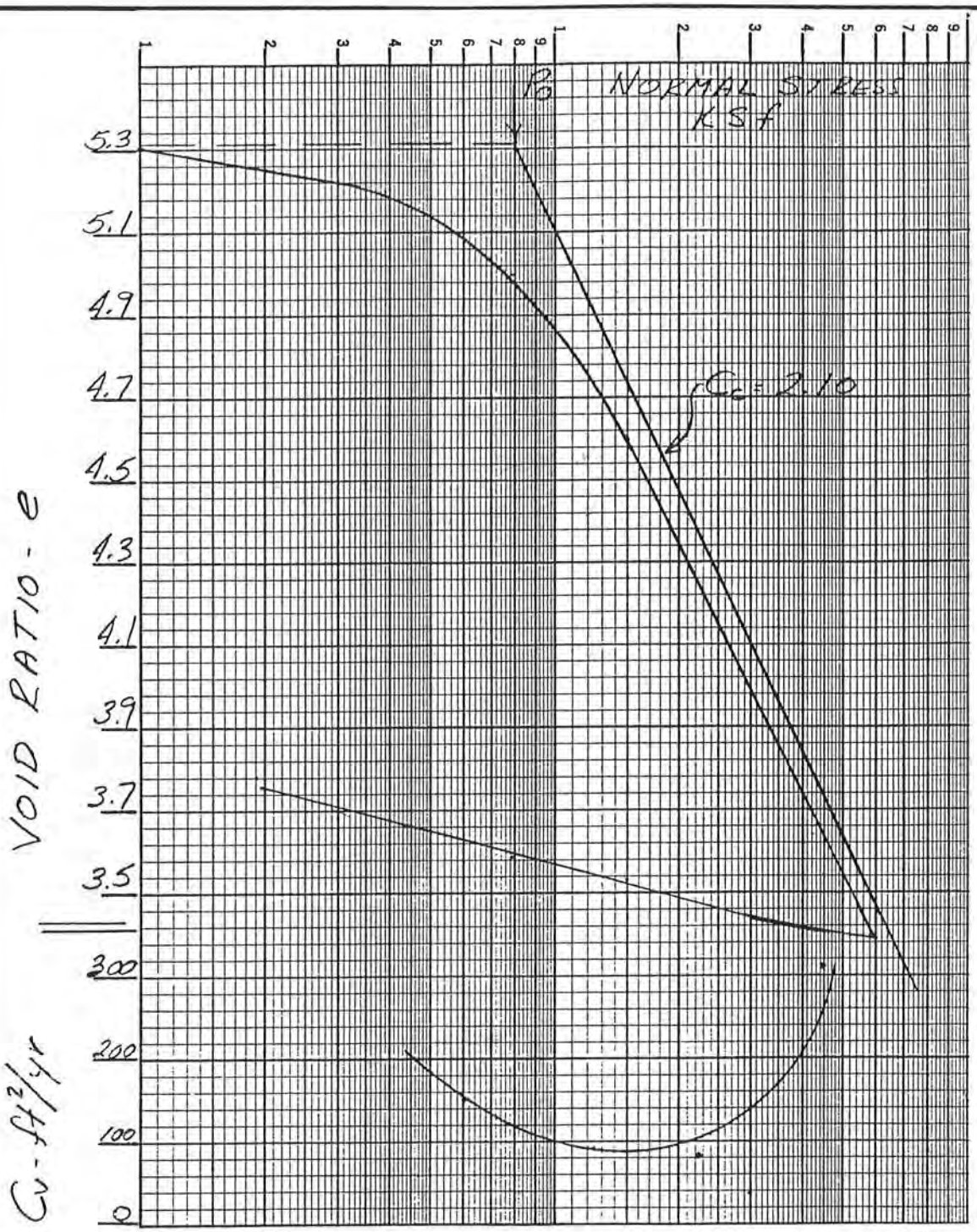
CONSOLIDATION TEST
Pressure - Void ratio curve

ATTACHMENT C

CORNELL, HOWLAND, HAYES & MERRYFIELD
CLAIR A. HILL & ASSOCIATES
ENGINEERS · PLANNERS · ECONOMISTS

CH2M HILL


B50-B-154-1
Semi-Cat
Bellwood, Pa.
Specific Test
Maximum Stress - ksi
Slope = 0.05
Slope = 0.13
Overconsolidation Ratio
Ratio = 3.3 / 0.7
0.48
0.42
Void Ratio - e
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
SEMI-LOGARITHMIC
LES X
46 6013
KEUFFEL & ESSER CO.



B54-3 11'
Brown Peat

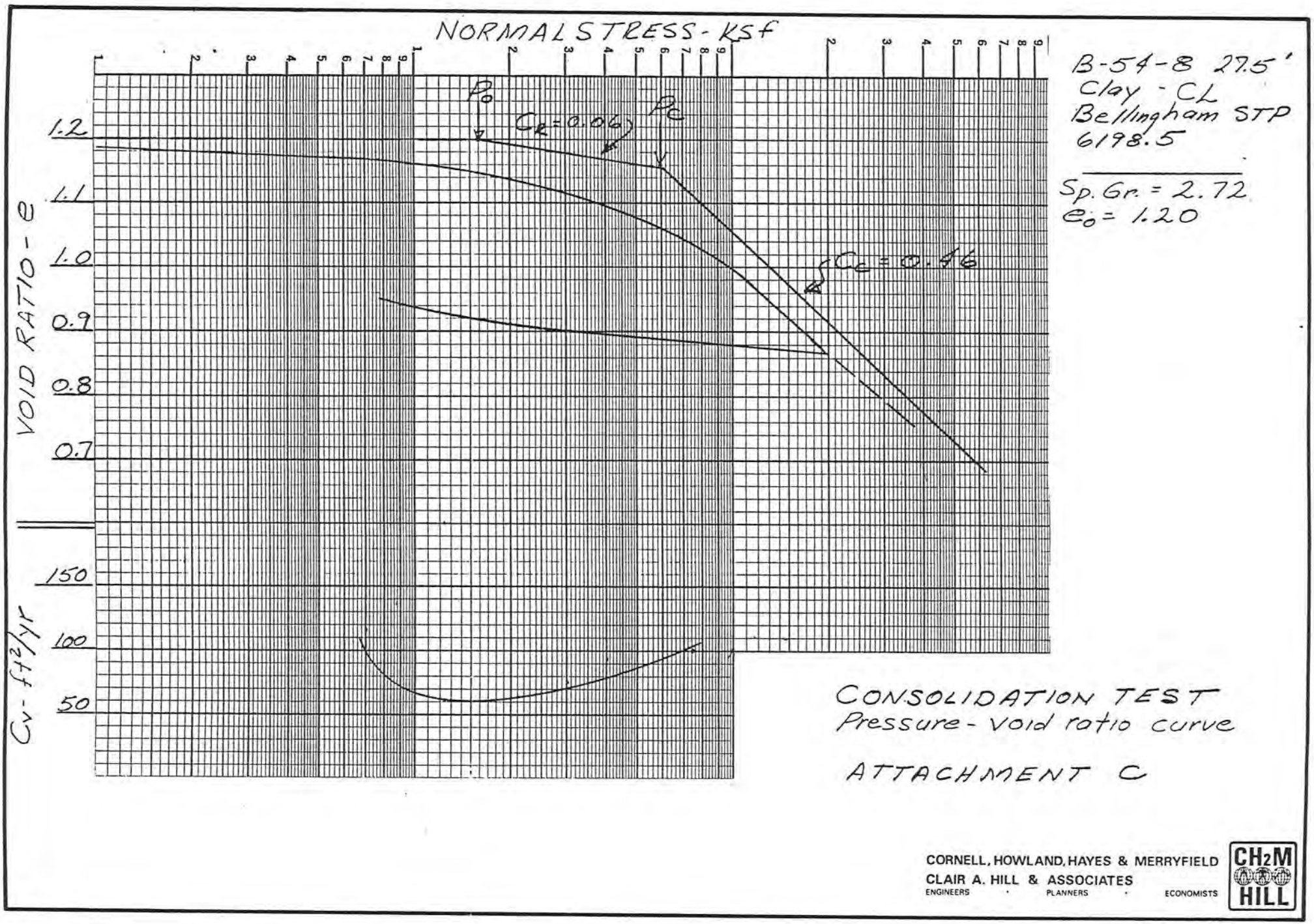
Bellingham STP
S6198.5

Sp Gr: 2.30
e_o = 5.31

CONSOLIDATION TEST
Pressure - void ratio Curve

ATTACHMENT C

CORNELL, HOWLAND, HAYES & MERRYFIELD
CLAIR A. HILL & ASSOCIATES
ENGINEERS · PLANNERS · ECONOMISTS
CH2M HILL



CONSOLIDATION TEST
Pressure - Void ratio curve

ATTACHMENT C

CORNELL, HOWLAND, HAYES & MERRYFIELD
CLAIR A. HILL & ASSOCIATES
ENGINEERS · PLANNERS · ECONOMISTS

CH2M HILL

APPENDIX B
LOGS OF FIELD EXPLORATION

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-1 | SHEET: 1 | OF: 1

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-1
ELEVATION: 17.4'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/14/89 FINISH: 06/14/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							At 8", hit gravel - hard, slow drilling.
	2.5						
		S1	0.3	8-15-11 (26)	SILTY SAND, gray, moist to wet, medium dense, with up to 10% broken, angular gravel (small pod of soft, brown, saturated silt with roots in sampler) (SM).		
	4.0						
5	5.0	S2	0.0	9-7-14 (21)	No recovery.		
	6.5						
	7.5	S3	0.4	17-42-44 (86)	SILTY SAND, as in S1 above, except very dense, to SANDY SILT, very hard, gray to gray-brown, moist (SM-ML).		Drilling more solidly after S3.
	9.0						
10	10.0	S4	0.6	12-12-15 (27)	WELL GRADED GRAVEL with SILT and SAND, gray to brown, moist to wet, medium dense, with about 10% fines, 40% sand (GW-GM).		
	11.5						
	15.0						
15		S5	0.0	15-12-10 (22)	Sample - mud and broken gravel, slough.		At 16', got into a looser packed gravel.
	16.5						
	20.0						
20		S6	0.6	7-2-6 (8)	POORLY GRADED GRAVEL with SAND, gray, wet, loose, gravel primarily subangular to subrounded (GP).		Sample S6 appears to be slough, driller thinks it is what he has been drilling in.
	21.5						Drilling very soft, loose gravel; hit soft, gray clay at 22'. No observation well installed.
	25.0						
25		S7	1.2	5-8-10 (18)	FAT CLAY, gray with fine brown mottling, moist, very stiff (CH).		
	26.5				END OF HOLE AT 26.5 FEET.		
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-2 | SHEET: 1 OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-2
ELEVATION: 15.6'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 6.8' - 07/21/89
START: 06/14/89 FINISH: 06/14/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							Slow drilling in gravels.
	5.0						
5		S1	0.5	11-14-13 (27)	POORLY GRADED GRAVEL with SILT and SAND, dark brown to black, wet, medium dense, gravel broken, angular, some rounded pieces, has oily smell (GP-GM).		
	6.5						Softer drilling at 8' - fewer gravels.
	10.0						
10		S2	0.7	11-11-12 (23)	WELL GRADED GRAVEL with SILT and SAND, dark brown, wet, medium dense, gravel broken and angular (GW-GM).		Firmer drilling at 10'.
	11.5						
	12.5	S3	0.8	17-19-24 (43)	Same as above, except gray-brown (GW-GM).		
	14.0						
15	15.0	S4	0.8	20-28-29 (57)	Same as above, some gravel is rounded (GW-GM).		Hitting loose gravel about 15', then firmed up again.
	16.5						
	17.5	S5	0.8	8-18-22 (40)	Same as above (GW-GM).		
	19.0						Softer drilling at about 19'.
20	20.0	S6	0.6	3-2-1 (3)	FAT CLAY with SAND, gray with brown peat interbeds (very thin), wet, with about 15-20% fine to medium sand and occasional gravel, soft (CH).		
	21.5	ST7	2.2		LEAN CLAY, gray, wet, with sand and occasional gravel (CL).		
	23.5	S8	0.8	2-7-9 (16)	Same as above, gray, moist, with occasional subrounded gravel, very stiff (CH).		
25	25.0						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-2 | SHEET: 2 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-2
ELEVATION: 15.6'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 6.8' - 07/21/89
START: 06/14/89
FINISH: 06/14/89
LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S9	1.2	5-4-7 (11)	SILT, brown, moist, moderately plastic, stiff (ML)>		
	31.5						
	35.0						
35		ST10	0.5		SILT, same as above, except with 20-30% medium sand and occasional broken gravel; sample fell from bottom of shelby tube - saved in bag.		Becoming coarser but still plastic, will attempt shelby at 35'.
	37.0						
	40.0						
40		S11	0.0	17-5-10 (15)	No recovery.		Cuttings are a plastic silty sand and gravel. Driller says drilling is in layers of sand, gravel and clay.
	41.5						
	45.0						
45		S12	0.3	11-6-8 (14)	Interbedded deposit, lower 2" POORLY GRADED SAND, gray, wet, medium dense, fine to medium grained (SP), overlain by SILT with SAND, gray-brown, wet, soft, with 10-25% sand and coarse gravel (ML).		
	46.5						
	50.0						Soft clay at 50', will try shelby tube.
50		ST13	2.0		Same as above (ML).		
	52.0						Observational well installation.
		S14		2-1-2 (3)	LEAN CLAY, gray, wet, soft (CL).		Hole plug to 18'. Gravel pack 10-18'. Tip from 13-15'. Sealed from 1-10' with cement grout and bentonite seal. Monument casng at ground surface.
	53.5				END OF HOLE AT 53.5 FEET.		
55							
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-3 | SHEET: 1 | OF: 1

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-3
ELEVATION: 17.5'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/15/89 FINISH: 06/15/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	2.5						
		S1	0.6	16-23-15 (38)	SILTY SAND with GRAVEL, gray-brown, moist, dense, fine to medium grained sand, with about 15% fines, and up to 35% gravel (SM).		
	4.0						
5	5.0						
		S2	0.8	9-11-12 (23)	Same as above, except fines consist of about 40-50% sample (SM).		
	6.5						
	7.5						
		S3	0.2	12-13-13 (26)	Same as above, with green rock in tip (SM).		
	9.0						
10	10.0						
		S4	0.9	12-9-17 (26)	Same as above, except with trace of peat (SM).		
	11.5						
							Got soft at 14'.
	15.0						
15		S5	0.0	2-1-2 (3)	No recovery, probably loose gravel.		Driller thinks he hit clay at about 16'.
	16.5						
	20.0						
20		S6	0.0	4-6-8 (14)	No recovery, gray clay smeared on sides of sampler.		
	21.5				END OF HOLE AT 21.5 FEET.		No observation well installed.
25							
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-4 | SHEET: 1 | OF: 1

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-4
ELEVATION: 32.6'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NONE ENCOUNTERED
START: 06/15/89
FINISH: 06/15/89
LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	2.5						
		S1	0.1	3-2-2 (4)	SILTY SAND with GRAVEL, brown, wet, loose (SM).		Sample recovered looks like slough.
	4.0						
5	5.0						
		S2	1.0	3-9-20 (29)	SILTY SAND with GRAVEL, brown, wet, medium dense, with about 25-30% rounded and broken gravel, and about 20% fines (SM).		
	6.5						
	7.5						
		S3	0.8	10-17-16 (33)	SILTY SAND with GRAVEL, brown, moist, hard, with about 40% fines and about 25% fine gravel (SM).		
	9.0						
10	10.0						
		S4	0.5	15-21-29 (50)	Same as above (SM).		
	11.5						
	15.0						
15							
		S5	0.3	19-26-39 (65)	Same as above (SM).		Larger cobbles at 16'.
	16.5						Observation well installation.
	20.0						Hole plug to 15'. Gravel pack 7-15'. Tip - 10-12'. Hole plug to 2'. Cement grout and monument cover at surface.
20							
		S6	1.1	20-29-50 (79)	POORLY GRADED SAND, brown, moist, very dense, sand very fine grained, may contain some coarse silt (SP).		
	21.5						
	25.0						
25							
		S7	0.3	40-60/5"	SILTY SAND with GRAVEL, gray-brown, moist, very dense, fine-grained sand with about 10-20% rounded gravel (SM).		
	25.9						
	30.0						
30							
		S8		21-60/6"	Same as above (SM).		
	31.0				END OF HOLE AT 31.0 FEET.		

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-5 | SHEET: 1 | OF: 1

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-5
ELEVATION: 19.4' | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.0' 07/21/89 | START: 06/28/89 | FINISH: 06/28/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							2' of gravel, then softer sand or silt; had to thicken mud, gravel collapsing into hole.
	2.5						
		S1	0.4	1-2-2 (4)	CLAYEY SAND with GRAVEL, brown, wet, loose, up to 50% broken gravel (SC).		
	4.0						
5	5.0	S2	0.0	1-0-1 (1)	No recovery. Cuttings look like gravel only.		
	6.5						
	7.5	S3	1.0	2-2-8 (10)	Same as in S1 above, except gray in upper 10" of sample, brown with gray mottling in lower 2".		S3 taken with D&M sampler and 140# hammer; got harder last 6"; subrounded gravel up to 1.5" present.
	9.0						
10	10.0	S4	0.7	8-7-14 (21)	Same as above, except medium dense and gray-brown mottled in color (SC).		S4 - SPT.
	11.5						
	12.5	S5	0.1	8-8-7 (15)	Same as above, rock in tip of sampler (SC).		
	14.0						
15	15.0	S6	0.0	7-6-5 (11)	No recovery. Drilling getting softer.		
	16.5						
	17.5	S7	1.0	3-4-7 (11)	LEAN CLAY, blue-gray, wet, stiff, with occasional fine gravel (CL); upper part of sampler is gray-black, organic silt/clay with shells, interlayered erratically with the above blue-gray clay, some occasional gravel (OL/OH?).		S7 - Taken with a D&M sampler using a 140# hammer.
	19.0						
20	20.0	S8	1.0	2-3-3 (6)	Same as above, except medium firm.		Finished drilling at 10:10 a.m.
	21.5				END OF HOLE AT 21.5 FEET.		Observation well installation.
							Tip from 15-17'. Gravel pack from 13-20'. Hole plug from 1-13'. Monument casing with cement grout to surface.
25							
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-6 | SHEET: 1 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-6
ELEVATION: 23.8'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.8' 07/21/89
START: 06/22/89 FINISH: 06/23/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							Start of drilling - 3:15 P.M.
							Cuttings - loose gravel, sand and silt.
	5.0						
5		S1	0.0	4-4-4 (8)	No recovery.		
	6.5						
	10.0						
10		S2	1.8	1-2-2 (4)	SANDY SILT to a SANDY LEAN CLAY, brown, wet, soft, with occasional gravel and sand seams, moderately plastic (ML to CL).		
	11.5						
	15.0						
15		ST3	1.8		Bottom of tube: SANDY LEAN CLAY.		
	17.0	S4	1.8	3-3-3 (6)	SANDY LEAN CLAY, gray, wet, soft to medium firm, moderately plastic (CL).		
	18.5						
	20.0						
20		S5	0.7	6-3-3 (6)	Same as above (CL), with interbeds of POORLY GRADED SILTY SAND, gray, wet, loose, medium grained (SP-SM).		
	21.5						
	25.0						
25		S6	1.5	4-6-5 (11)	Same as above, (CL) except with occasional gravel and no sand seams.		
	26.5						
							Harder at 29'.
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-6 | SHEET: 2 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-6
ELEVATION: 23.6'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.8' 07/21/89
START: 06/22/89 FINISH: 06/23/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S7	1.5	13-50-60/5"	INTERBEDDED, SILTY SAND and SILTY POORLY GRADED SAND, both gray, wet, very dense, silty sand is fine grained with occasional gravel, poorly graded sand is medium to coarse grained (SM to SM-SP).		
	31.4						
	35.0						
35		S8	0.5	11-9-9 (18)	FAT CLAY to SANDY LEAN CLAY with GRAVEL, gray, wet, very stiff (CH to CL).		
	36.5						
	40.0						
40		S9	1.0	13-21-17 (38)	SANDY LEAN CLAY interbedded with SILT, both gray, clay is wet, silt is moist, hard, with occasional gravel (CL to ML).		
	41.5						
	45.0						
45		S10	0.0	9-12-17 (29)	SANDY LEAN CLAY, gray, wet, with occasional gravel, very stiff (CL).		From 45' down, drilling in and out of gravel layers.
	46.5						
	50.0						
50		S11	1.0	9-13-18 (31)	SANDY SILT to SANDY LEAN CLAY, gray, wet, hard, with occasional gravel (ML to CL).		
	51.5						
	55.0						
55		S12	0.8	14-44-60/4"	SANDY SILT, same as above (ML).		
	56.3						
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-6 | SHEET: 3 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-6
ELEVATION: 23.6'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.8' 07/21/89
START: 06/22/89 FINISH: 06/23/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60	60.2	S13	0.0	60/2"	No recovery.		Observation well installation.
	65.0						Drilled hole 7' north of original location to 17' depth.
65	65.4	S14	0.3	60/4.5"	SILTY SAND with GRAVEL, gray with brown pods, wet, very dense, with 25% gravel (SM).		Gravel pack from 11-17'. Tip from 13-15'. Cement grout to surface with protective monument casing.
					END OF HOLE AT 65' 4.5".		
70							
75							
80							
85							
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-7 | SHEET: 1 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-7
ELEVATION: 22.4'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.8' 07/21/89
START: 06/20/89 FINISH: 06/21/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.7	7-8-6 (14)	SILTY GRAVEL with SAND, brown, wet, medium dense, with about 10-15% fines (SM).		
	6.5						
	10.0						
10		S2	1.0	5-10-16 (26)	Upper 6": SILT with SAND and occasional GRAVEL, gray, wet, stiff (ML).		
	11.5				Lower 6": SILTY, WELL GRADED SAND, gray, wet, medium dense, with occasional gravel (SM-SW).		
	15.0						
15		S3	1.8	2-1-2 (3)	LEAN CLAY with SAND, gray, wet, soft, with occasional shells (CL).		
	16.5						
	20.0						
20		ST4	2.0		LEAN CLAY, gray, wet, soft (CL).		
	22.0	S5	0.3	2-2-2 (4)	BROKEN GRAVEL in a SILT MATRIX.		Sample appears to be slough.
	23.5						
	25.0						
25		S6	2.0	1-3-3 (6)	Same as in S3 above, except medium firm (CL).		
	26.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-7 | SHEET: 2 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION B-7
ELEVATION: 22.4'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 5.8' 07/21/89
START: 06/20/89 FINISH: 06/21/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SOIL BORING LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		ST7	2.0		Bottom of tube looks like: SILT with SAND and GRAVEL, gray, wet, medium firm to stiff (ML).		Bottom of tube bent by gravel.
	32.0	S8	2.0	5-6-7 (13)	SILT, gray, wet, moderately plastic, stiff (ML).		Scrape from rock along 3/4 of tube.
	33.5 35.0						
35		S9	0.5	5-6-7 (13)	SILT, same as above, possibly a lean clay (ML-CL?).		
	36.5						
	40.0						
40		S10	2.0	2-4-6 (10)	LEAN to FAT CLAY, gray, wet, stiff, with fine to medium sand partings (CL to CH).		
	41.5						Drilling got harder at 43' - more sand and gravel.
	45.0						
45		S11	1.0	10-18-30 (48)	SILT with SAND and OCCASIONAL GRAVEL, gray, wet, very dense (ML).		
	46.5						Hit real hard material at 47.5'.
	50.0						
50	50.4	S12	0.1	60/5" (31)	SILTY SAND with GRAVEL, gray, wet, very dense (SM).		
							Got sandier at 52' - a little easier to drill.
	55.0						
55		S13	0.3	22-60/6"	SANDY SILT, gray, wet, very hard, with about 5-10% gravel (ML).		Observation well installation.
	56.0				END OF HOLE AT 56.5 FEET.		Drilled hole 7.5' north of original location to 17' depth. Gravel pack from 11-17'. Tip from 13-15'. Cement grout to surface with protective monument casing.
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-8 | SHEET: 1 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-8
ELEVATION: 19.2'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/15/89
FINISH: 06/17/89
LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.8	4-7-5 (12)	ORGANIC SILT(?), dark brown, moist, stiff, with about 10-15% medium sand, and about 5% rounded gravel (OL).	OL	
	6.5						
	10.0						
10		S2	0.9	1-3-4 (7)	LEAN CLAY, brown with gray mottling, wet, medium firm (CL).	CL	
	11.5						
	15.0						
15		ST3	2.0		Same as above, except gray and hard (CL).	CL	
	17.0						
	20.0						
20		S4	1.2	3-6-9 (15)	Same as above, except gray in lower 8" of sampler and brown above, with thin (1/16" or less) zones of sand (CL).	CL	
	21.5						
	25.0						
25		S5	2.0	0-2-1 (3)	LEAN CLAY, gray, wet, soft, with up to 5% medium sand and occasional shells and fine gravel (CL).	CL	
	26.5	ST6					
	28.5						
		S8	2.0	2-2-3 (5)	Same as S5, gray, wet, medium firm (CL).	CL	
30	30.0						

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-8 | SHEET: 2 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-8
ELEVATION: 19.2' | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED | START: 06/15/89 | FINISH: 06/17/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SOIL BLOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30							
							Harder drilling at 34'.
	35.0						
35		S9	0.3	20-10-9 (19)	POORLY GRADED SAND, gray, wet, medium dense, medium grained (slough?).		
	36.5						
	40.0						
40		S10	2.0	1-3-2 (5)	INTERBEDDED ELASTIC SILT, LEAN CLAY and POORLY GRADED FINE TO MEDIUM SAND, gray, wet, soft to loose (MH, CL & SP).		
	41.5						
	45.0						
45		S11	0.2	3-2-3 (5)	LEAN CLAY, gray, wet, medium firm (CL).		Sample may be slough.
	46.5						Driller says material becoming sandy at 47'.
	50.0						At 49', drilling gets softer; cuttings are silt or clay with fine gravel.
50		S12	0.4	8-8-8 (16)	SILT, gray, wet, with about 10% fine sand, occasional fine gravel, very stiff (ML).		
	51.5						Harder at 53'.
	55.0						
55		S13	0.2	11-14-18 (32)	SILTY GRAVEL with SAND, gray, wet, dense (GM?).		S13 small sample - difficult to classify.
	56.5						Hard drilling at 57'.
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-8 | SHEET: 3 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-8
ELEVATION: 19.2'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/15/89 FINISH: 06/17/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S14	0.8	25-29-60/4.5"	SILTY SAND, gray, wet, very dense, with about 10% gravel (SM).		
	61.4						Rock in tip of sampler.
	65.0						Few rocks present at 64'.
65		S15	1.5	11-23-47 (70)	LEAN CLAY with SAND, gray, wet, hard, with occasional gravel (CL).		Becoming gravelly at 66'.
	66.5						
	70.0						
70		S16	0.6	18-22-45 (67)	SILTY SAND, gray, wet, very dense, with occasional gravel (SM).		
	71.5						
	75.0						
75		S17	0.7	44-60/5"	Same as above, except less silt, 10-15% fines (SM).		
	75.9						
	80.0						
80		S18	0.1	22-12-12 (24)	Broken gravel in drilling mud.		S18 - Sample recovered broken gravel in drilling mud.
	81.5						Drilling got a little softer at 81'.
	85.0						A little firmer at 83.5'.
85		S19	1.1	19-45-60/5.5"	SILTY SAND, gray, moist to wet, with occasional fine gravel, sand, fine grained, very dense (SM).		
	86.5						
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-8 | SHEET: 4 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 19.2'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED

LOCATION: B-8
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/15/89 FINISH: 06/17/89 LOGGER: B.M. WITER

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
90	90.4	S20		60/5"	POORLY GRADED SAND, gray, wet, dense, fine to medium grained (SP).		End of day - 06/16/89.
	95.0						
95	95.3	S21	0.3	120/4"	SANDY SILT, gray, wet, hard, with occasional gravel, 20-30% fine to medium grained sand, interbedded with layers of sand (ML).		Used D&M sampler with 140# hammer.
	100.0						
100	100.5	S22	0.4	120/5.5"	POORLY GRADED SAND, gray, wet, very dense, fine to medium grained (SP).		No observation well installed.
					END OF HOLE AT 100.5 FEET.		
105							
110							
115							
120							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-9 | SHEET: 1 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 18.6'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 4.0' 07/21/89

LOCATION: B-9
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/22/89 FINISH: 06/22/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							Cuttings.
							6" topsoil, below topsoil gravel to 3' and from 3-5', gravelly silt with wood.
	5.0						
5		S1	0.5	3-2-2 (4)	ORGANIC SILT/PEAT, dark brown, wet, soft, with wood fibers and gravel (OL/PT).		
	6.5						
							At 8', got into a brown, gravelly silt with wood fibers.
	10.0						
10		ST2	1.8		Bottom of tube: SILT with SAND, gray with brown mottling, wet, stiff (ML).		
	12.0	S3	0.7	4-4-5 (9)	INTERBEDDED SILT, same as above, with LEAN CLAY, brown with gray mottling, wet, stiff, with occasional gravel (ML/CL).		
	13.5						
	15.0						
15		S4	1.8	4-4-9 (13)	INTERBEDDED SILTY SAND, SANDY CLAY and LEAN CLAY, brown, wet, clay is stiff, sand is loose to medium dense (CL to SM).		
	16.5						
							At about 18', change to a gray clay/silt.
	20.0						
20		ST5					
	22.0	S6		3-1-2 (3)	LEAN CLAY with SAND, gray, wet, soft, with occasional gravel and thin sand interbeds (CL).		
	23.5						
	25.0						
25		S7		1-1-10 (11)	Same as above, except stiff, may be a fat clay (CH), in tip, material is sandier, unit also has occasional shells.		
	26.5						
							At 28', got firmer.
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-9 | SHEET: 2 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-9
ELEVATION: 18.6' | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 4.0' 07/21/89 | START: 06/22/89 | FINISH: 06/22/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30							Drilling got hard at 30'.
	31.0	S8	0.1	18-60/6"	Sample recovered is slough - LEAN CLAY with GRAVEL, gray, wet (CL).		Got into soft material at 32'.
	35.0						
35		ST9	2.0		Same as in S7.		
	37.0	S10	2.0	2-2-2 (4)	SANDY LEAN CLAY with GRAVEL, gray, wet, soft (CL).		
	38.5						At 39', got into a firmer silt.
	40.0						
40		S11	0.0	7-8-11 (19)	No recovery.		
	41.5						
	45.0						
45		S12	2.0	5-4-60 (64)	Same as in S10 above, except sandier (CL).		
	46.5						Harder from 47-48'.
	50.0						
50		S13	1.0	11-47-60/4.5"	SILTY SAND, gray, wet, very dense, with occasional gravel, appears layered with sandy silt (SM).		
	51.4						
	55.0						Observation well installation. Drilled hole 8.5' north of original location to 17' depth. Gravel pack from 11-17'. Tip from 13-15'. Cement grout to surface with protective monument casing.
55	55.4	S14	0.4	60/5"	SILTY SAND, same as above, except with a small (6") zone of sandy silt (SM).		
	60.0						
60		S15		60/2"	No recovery.		
	60.2				END OF HOLE AT 60.2 FEET.		

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-10 | SHEET: 1 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-10
ELEVATION: 15.8'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 2.5' 07/21/89
START: 06/23/89
FINISH: 06/27/89
LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						Gravelly drilling until about 5'.
5		S1	0.8	3-4-4 (8)	SILT, to ORGANIC SILT, dark brown, moist to wet, medium firm, with occasionl gravel and wood/organic pieces (ML/OL).	ML OL	
	6.5						
	10.0						
10		ST2	2.0		Top of tube: same as above. Bottom of tube: LEAN CLAY, gray, wet, medium firm (CL).		
	12.0	S3	0.5	2-2-3 (5)	SANDY LEAN CLAY to LEAN CLAY, gray, wet, medium firm (CL).		
	13.5						
	15.0						
15		S4	1.2	5-12-9 (21)	CLAYEY to SILTY SAND with GRAVEL, gray, wet, medium dense, with 15% gravel (SC to SM).		
	16.5						
	20.0						
20		S5	NR	0 (0)	FAT CLAY, gray, wet, soft, with occasional fine sand or coarse silt (CH).		Classified sample from material on sides of sampler.
	21.5						
	22.0	ST6	0.0				Sample too soft; slipped out of tube. Bagged sample remaining, about 1-2" of disturbed material.
	24.0						
25	25.0	ST7	2.3		LEAN CLAY to SILT, gray, wet, soft (CL-ML).		
	27.0	S8	0.3	1-1-2 (3)	LEAN CLAY to FAT CLAY, gray, wet, soft, with medium sand lenses (CL to CH).		
	28.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-10 | SHEET: 2 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-10
ELEVATION: 15.8' | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 2.5' 07/21/89 | 06/23/89 | FINISH: 06/27/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S9	1.2	1-2-2 (4)	LEAN CLAY, gray, wet, soft, with occasional gravel and fine to medium sand interbeds (CL).		
	31.5						
	35.0						
35		ST10	2.0				
	37.0						
		S11	1.5	3-4-11 (15)	SILT with SAND, INTERBEDDED with LEAN CLAY and SILTY SAND, gray, wet, sand, medium dense, silt and clay, stiff (ML, CL and SM).		
	38.5						
	40.0						
40		S12	1.5	1-2-1 (3)	Same as in S9 - LEAN CLAY (CL).		
	41.5						
	45.0						
45		ST13	1.2				ST13 - Bottom of tube wrinkled, sample moved within tube; bottom 8" of sample fell out of tube - likely sandy.
	47.0						
		S14	1.0	7-7-6 (13)	SANDY LEAN CLAY, gray, wet, stiff (CL).		
	48.5						
	50.0						
50		S15	1.5	4-2-7 (9)	Same as above (CL).		
	51.5						Little harder drilling at 53'.
	55.0						
55		S16	1.2	6-8-11 (19)	SANDY LEAN CLAY, interbedded with CLAYEY SAND, same as above, gray, wet, fine to medium grained, medium dense, with occasional gravel (CL to SC).		
	56.5						
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-10 | SHEET: 3 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 15.8'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 2.5' 07/21/89

LOCATION: B-10
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/23/89 FINISH: 06/27/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S17	2.0	3-3-5 (8)	INTERBEDDED SANDY LEAN CLAY, LEAN CLAY and CLAYEY SAND, all gray, wet, clay medium firm, sand loose, with zones of fine gravel within the units (CL to SC).		
	61.5						
	65.0						
65		S18	1.2	12-8-8 (16)	Same as above, except also with lenses of poorly graded sand, fine to medium grained, gray, wet (CL, SC and SP).		
	66.5						Hit hard drilling at 68'.
	70.0						Got softer at 69'.
70		S19	2.0	3-5-7 (12)	LEAN CLAY, gray, wet, stiff, with erratic lenses of poorly graded sand in sample (CL).		
	71.5						Hardened at 72'.
	75.0						
75	75.3	S20	0.3	60/4"	LEAN CLAY, gray, wet, hard, with up to 20% broken angular gravel (CL).		Sample S20 may be slough.
	80.0						
80		S21	0.4	60/5.5"	SILTY SAND and GRAVEL, gray, wet, very dense, sand, medium to course grained, with broken angular gravel (SM to GM).		Observation well installation.
	80.5				END OF HOLE AT 80' 5.5".		Drilled hole 10' north of original location to 17' depth. Gravel pack from 11-17'. Tip from 13-15'. Hole plug from 1-11'. Monument casing at surface in cement grout.
85							
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-11 | SHEET: 1 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 16.3'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED

LOCATION: B-11
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/27/89 FINISH: 06/27/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							1' of gravelly topsoil, then hit wood for about 1/2-9'; back in gravelly soils.
	5.0						
5		S1	0.3	5-3-3 (3)	SILTY SAND, gray, wet, loose, with about 20-30% fines, 10% gravel (SM).		
	6.5						
	10.0						Drilling got siltier at 9', but still has gravel in it. Drilling seems to be in more cobbles and boulders at about 10'.
10		S2	0.5	10-12-13 (25)	Same as above, except medium dense (SM).		
	11.5						
	15.0						
15		S3	1.0	3-3-3 (6)	SANDY LEAN CLAY to CLAYEY SAND, brown, wet, medium firm to loose, with occasional gravel (CL to SC).		
	16.5						
	20.0						Drills as if there was more gravel in it.
20		S4	1.2	3-4-7 (11)	Same as above, except with some gray mottling.		
	21.5						
	25.0						
25		S5	1.7	4-3-4 (7)	SANDY LEAN CLAY, same as above (CL), except grading into a fat clay, gray, wet, soft in tip of sampler (CH).		
	26.5						
							Hit gravel at 29'.
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-11 | SHEET: 2 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-11
ELEVATION: 16.3'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/17/89 FINISH: 06/27/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S6	1.5	30-34-37 (71)	POORLY GRADED SAND with SILT and GRAVEL, gray, wet, very dense, with about 35-40% broken gravel and about 10% fines (SP-SM).		
	31.5						
	35.0						
35		S7	1.0	33-38-44 (82)	Same as above, some large (1") gravel in sample (SP-SM).		
	36.5						
	40.0						
40	40.5	S8	0.5	60/6"	Same as above (SP-SM).		
	45.0						
45	45.5	S9	0.4	60/6"	Same as above (SP-SM).		
	50.0						
50		S10	0.8	38-60/4"	SILT with SAND and GRAVEL, gray, wet, hard (ML), with fine gravel and fine to medium sand, with zones of sandy lean clay with gravel (CL).		No observation well installed.
	50.8				END OF HOLE AT 50', 8".		
55							
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-12 | SHEET: 1 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-12
ELEVATION: 16.4'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED
START: 06/20/89 FINISH: 06/20/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							Hit log and debris in upper 2.5'. Hit gravel at 2.5'.
	5.0						
5		S1	1.0	11-8-13 (21)	Upper 6": ROUNDED to BROKEN GRAVEL in drilling mud. Lower 6": SILTY SAND, blue-gray with brown-orange mottling, medium dense, with occasional gravel (SM).		
	6.5						
	10.0						
10		S2	1.1	6-5-4 (9)	SANDY SILT, gray-brown, mottled, wet, medium firm (ML).		Gravel slough at top of sampler.
	11.5						
	15.0						
15		S3	0.7	1-1-2 (3)	LEAN CLAY with SAND, gray, wet, soft, with occasional gravel (CL).		
	16.5						
	20.0						
20		ST4	2.0		Same as above (CL).		Bottom 6" of tube dented by gravel or rock.
	22.0						
		S5	0.9	2-3-7 (10)	FAT CLAY to ELASTIC SILT, INTERBEDDED, clay is gray, wet, stiff; silt is brown, wet, stiff; both with occasional sand (CH to MH).		
	23.5						Hit a hard gravel layer at 24'.
25							Appears to have large cobbles in a silt layer.
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-12 | SHEET: 2 | OF: 2

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 16.4'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: NOT RECORDED

LOCATION: B-12
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/20/89 FINISH: 06/20/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S6	0.9	6-6-28 (32)	LEAN CLAY with SAND, brown, wet, hard, with occasional gravel (CL).		Drills solid from about 29'.
	31.5						Drills very hard at 32'.
	35.0						
35	35.5	S7	0.5	60/5.75"	SILTY SAND, gray-brown, wet, very dense, with about 15-20% fines, up to 10% gravel (SM).		
	40.0						
40		S8	0.7	45-60/4"	POORLY GRADED SAND, gray, wet, medium to coarse grained, very dense (SP).		Driller says gravels present within unit.
	40.8						
	45.0						
45	45.5	S9	0.4	60/5.5"	SILTY SAND, as in S7 above (SM).		
	50.0						No observation well installed.
50	50.4	S10	0.4	60/5"	Same as above (SM).		
					END OF HOLE AT 50' 5".		
55							
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-13 | SHEET: 1 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-13
ELEVATION: 12.9' | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 3.5' 07/21/89 | START: 06/19/89 | FINISH: 06/20/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SOIL BORING LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						Cuttings indicate a loose gravel.
5		S1	0.0	3-1-4 (5)	No recovery.		
	6.5						Peat with gravel at 6.5'.
	10.0						Interbedded peat and granular material.
10		S2	0.7	1-1-1 (2)	ORGANIC SILT/PEAT, brown, moist to wet, soft, with poorly graded gray sand in tip (OH/PT).		Sample smells like rotten eggs (sulfer smell).
	11.5						
	15.0						
15		ST3	2.0		SILT, blue-gray, wet, with occasional gravel, medium stiff (ML).		Will try Osterberg sampler at 15'.
	17.0						
		S4	0.9	2-3-3 (6)	LEAN CLAY to SANDY CLAY, gray-blue with black mottling, wet, medium firm (CL).		
	18.5 20.0						
20		S5	1.2	1-2-3 (5)	LEAN CLAY, same as above, with brown mottling (CL).		
	21.5						
	25.0						
25		ST6	2.0		In bottom of tube: SANDY SILT, blue-gray with brown mottling, wet.		Color change to brown at 25'.
	27.0						
		S7	1.0	2-2-1 (3)	SILT with SAND to CLAY with SAND, blue-gray to gray with brown mottling, wet, soft (ML to CL).		
	28.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-13 | SHEET: 2 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 12.9'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DATE: 3.5' 07/21/89

LOCATION: B-13
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/19/89 FINISH: 06/20/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S8	0.3	0-2-1 (3)	LEAN CLAY, gray-brown, wet, soft, with silt and fine sand (CL).		
	31.5						
							Driller says it drills like there is gravel in unit.
	35.0						
35		S9	1.2	13-19-25 (44)	SILTY SAND, gray, wet, dense, fine to medium grained (SM).		
	36.5						
	40.0						
40		S10	2.0	0-3-6 (9)	LEAN CLAY, as in S8, except stiff, with interbeds of sandy clay to silty clay with sand (CL).		Got hard at 42.5' - gravel.
	41.5						
							Got softer at 43.5', still firm - more silt and sand with unit.
	45.0						
45		S11	2.0	2-2-2 (4)	LEAN CLAY to FAT CLAY, gray, wet, soft, with occasional zones of less plastic (fine sandy clay) material (CL to CH).		
	46.5						
	50.0						
50		ST12					
	52.0						
		S13	2.0	4-4-6 (10)	INTERBEDDED SILT, SILTY SAND and ELASTIC SILT, gray, wet, loose to stiff (ML, SM, MH?).		
	53.5						
55							
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-13 | SHEET: 3 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION: 12.9'
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 3.5' 07/21/89

LOCATION: B-13
DRILLING CONTRACTOR: KENNER DRILLING
START: 06/19/89 FINISH: 06/20/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S14	2.0	3-4-6 (10)	SANDY LEAN CLAY, gray, wet, medium firm to stiff, with thin interbeds of silty sand and lean clay (CL).		
	61.5						
	65.0						
65		S15	2.0	3-4-4 (8)	LEAN CLAY, gray, wet, medium firm, with interbeds of sandy clay to elastic silt with sand (CL).		
	66.5						
	70.0						
70		ST16	0.0		Same as above (CL).		Tried to take shelby tube. Sample did not work. Drilled out 2' and took Osterberg.
	72.0	ST17	2.0		Same as above (CL).		
	74.0						
75		S18	1.7	3-9-31 (40)	Upper 14": Same as above, gray, moist, hard, hit hard unit at 75', silt with sand and occasional gravel (ML).		
	75.5						
	80.0						
80	80.5	S19	0.3	60/6"	SILTY SAND with GRAVEL, gray, wet, very dense, with up to 20% broken gravel (SM).		
	85.0						
85		S20	0.3	42-60/6"	Same as above, except in tip poorly graded sand, gray, wet, very dense (SP).		
	86.0						
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5.20 | BORING NUMBER: B-13 | SHEET: 4 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-13
ELEVATION: 12.9'
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY/CME 75
WATER LEVEL AND DAte: 3.5' 07/21/89
START: 06/19/89 FINISH: 06/20/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
90							Observation well installation.
							Drilled hole 15' west of original location to 20' depth.
							Gravel pack from 13-20'.
							Tip from 15-17'.
	95.0						Hole plug from 1-13'.
95							Monument casing at surface in cement grout.
		S21	0.8	6-18-32 (50)	SANDY LEAN CLAY, gray, wet, hard, with up to 10% gravel (CL).		
	96.5				END OF HOLE AT 96.5 FEET.		
100							
105							
110							
115							
120							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-14 | SHEET: 1 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-14
ELEVATION: | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 10.7' - 08/04/89 | START: 08/01/89 | FINISH: 08/02/89 | LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.6	8-31-43 (74)	SILTY SAND with GRAVEL, brown, slightly moist, very dense, with up to 20% subrounded gravel (SM).	SM	
	6.5						
	10.0						
10		S2	0.3	5-5-8 (13)	SILTY SAND with GRAVEL, moist to wet, medium dense, with up to 15% subounded gravel and localized lenses of dark brown ORGANIC SILT (SM with lenses of OL).	SM OL	From 12-14 feet softer drilling, at 14 feet got into gravelly material.
	11.5						
	15.0						
15		S3	0.5	9-11-7 (18)	WELL GRADED SAND, gray, wet, medium dense, with occasional fine gravel and broken shells (SW).	SW	Got into clay at about 17 1/2 feet.
	16.5						
	20.0						
20		S4	0.0	1-2-2 (4)	FAT CLAY, gray to blue gray, wet, soft, with occasional gravel and fine interbeds of peat and woody inclusions (CH).	CH	
	21.5						
	25.0						
25		ST5	2.0				Hard clay in base of tube.
	27.0						
		S6	.04	3-4-5 (9)	FAT CLAY, gray, wet, with up to 10% subounded gravel (CH).	CH	Sample S6 may be slough.
	28.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-14 | SHEET: 2 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
LOCATION: B-14
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 10.7' - 08/04/89
START: 08/01/89
FINISH: 08/02/89
LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S7	1.5	3-4-10 (14)	FAT CLAY, gray brown with brown mottling, wet, very stiff (CH) BROWN SILT (ML) present in tip of sampler.		
	31.5						
	35.0						
35		S8	0.2	3-1-2 (3)	FAT CLAY, as above, except soft, with occasional gravel (CH).		
	36.5						Becoming gravelly at 38 feet.
	40.0						
40		S9	1.3	17-23-26 (49)	POORLY GRADED SAND, gray, wet, dense, fine to medium grained (SP).		
	41.5						
	45.0						Drilling a little softer at 44 feet, driller thinks 5-10 pushed on a rock.
45		S10	0.0	2-15-7 (22)	No recovery.		
	46.5						
	50.0						
50		S11	1.5	2-1-2 (3)	FAT CLAY, gray, wet, soft(CH).		
	51.5						
	55.0						
55		ST12	1.0		As above.		Bottom 12 inches of sample ST-12 lost.
	57.0						
		S13	2.0	2-4-5 (9)	FAT to LEAN CLAY, as above except stiff with occasional fine to medium sand (CL to CH).		
	58.5						
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-14 | SHEET: 3 OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 10.7' - 08/04/89

LOCATION: B-14
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/01/89 FINISH: 08/02/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60							
	65.0						
65		S14	1.5	3-4-6 (10)	FAT to LEAN CLAY, as in S-13 except with thin zones of sand, (CH) with zones of (SP-SM).		
	66.5						Hit a little gravel from 68 to 68 1/2 feet.
	70.0						
70		S15	0.3	4-6-7 (13)	As above.		S15 appears to be slough.
	71.5						
	75.0						
75		S16	2.0	3-3-5 (8)	LEAN CLAY, gray, wet, medium firm, with zones of fine sand/coarse silt and occasional fine gravel (CL).		
	76.5						
80							
	85.0						A little firmer drilling at 84 feet.
85		S17	1.5	3-2-5 (7)	As above, may possibly be a fat clay (CL-CH?).		
	86.5						
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-14 | SHEET: 4 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-14
ELEVATION:
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 10.7' - 08/04/89
START: 08/01/89 FINISH: 08/02/89 LOGGER: B.M. WITEK

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
90							
	95.0						
95		S18	1.5	2-6-7 (13)	AS in S-17, except stiff, some 1/2 inch diameter angular gravel fragments.		
	96.5						
100							Gravel layer from 102 to 103 feet, then firmer sand? below that.
	105.0						
105		S19	0.9	2-5-8 (13)	As above (CL).		
	106.5						A few scattered large rocks.
110							
	115.0						Stiffer drilling.
115		S20	NR	6-10-13 (23)	As above, very stiff (CL).		
	116.5						
120							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-14 | SHEET: 5 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-14
ELEVATION:
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 10.7- 08/04/89
START: 08/01/89 FINISH: 08/02/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
120							
							At 123 feet, hard gravel layer.
125							
	130.0						
130		S21	0.3	60/3"	WELL GRADED SAND with GRAVEL, gray, wet, very dense, medium grained (SW).		
	130.3				End of boring at 130.3 feet.		
135							
140							
145							
150							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-15 | SHEET: 1 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 12.8' - 08/04/89

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/02/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.6	15-10-10 (20)	SILTY SAND, brown, moist, medium dense, with occasional gravel (SM).		2 to 1-1/2 inch gravel fragments.
	6.5						
	10.0						
10		S2	0.5	10-11-7 (18)	WELL GRADED SAND with GRAVEL, gray, moist?, medium dense (SW).		
	11.5						Softened at 14 feet.
	15.0						
15		S3	0.0	1-1-2 (3)	No Recovery.		
	16.5						Back into loose gravel at 17 feet.
	20.0						
20		S4	0.2	10-5-3 (8)	POORLY GRADED GRAVEL, gray, moist, loose, angular to subangular 1 1/4 inch minus gravel (GP).		
	21.5						Softer drilling at 23 feet.
	25.0						
25		S5	0.4	4-3-3 (6)	SILT, gray, wet, medium firm (ML)		
	26.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-15 | SHEET: 2 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-17
ELEVATION:
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 12.8' - 08/04/89
START: 08/02/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S6	1.5	1-6" 1-12"	FAT CLAY, gray, wet, very soft, highly plastic (CH).		
	31.5						
	35.0						
35		S7	1.2	7-9-23 (32)	SILTY FINE SAND, gray, moist?, medium dense (SM)		
	36.5						Into softer material.
	40.0						Back into sand.
40		S8	0.8	7-15-12 (27)	As above in S7.		
	41.5						Back into silt?
	45.0						
45		S9	1.3	1-5-3 (8)	FAT CLAY, as in S6, interbeded with silty fine sand.		
	46.5						Scattered rocks.
	50.0						Back into silt.
50		S10	1.7	2-3-4 (7)	FAT CLAY with GRAVEL, gray, wet, firm, gravel, mainly 3/4 inch minus.		
	51.5						
	55.0						
55		S11	1.7	4-3-4 (7)	FAT CLAY, gray, wet, firm, moderately plastic (CH) INTERBEDDED with SILTY FINE SAND to FINE SAND with SILT, gray, moist, loose (SM).		
	56.5						Back into sand.
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-15 | SHEET: 3 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-17
ELEVATION:
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: 12.8' - 08/04/89
START: 08/02/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S12	1.5	5-6-6 (12)	SILTY SAND, gray, moist, medium dense, sand, medium grained (SM).		
	61.5						
	65.0						At 63-1/2 feet, back into softer material, silt?
65		S13	1.7	2-3-5 (8)	SILTY FINE SAND, gray, moist, loose, poorly graded, with interbeds of fat gray clay and well graded, medium grained, gray silty sand (SM)(CH).		
	66.5						
	70.0						Into Gravels at 68 feet.
70		S14	1	16-27-42 (69)	SILTY FINE SAND and SANDY GRAVEL INTERBEDDED, gray, moist, very dense, sand, well graded, gravel, 1/2 inch minus (SP).		
	71.5						
	75.0						
75		S15	.4	29-22-16 (38)	POORLY GRADED SAND, gray, moist, dense, fine grained (SP).		
	76.5						
	80.0						
80		S16	1.3	3-35-60/ (60/4")	As in S-14.		
	81.3						Bottom 5 inches of sample appears to be dense sandy gravel.
	85.0						Slow drilling 81 to 85 feet.
85		S17	.7	29-26-44 (70)	WELL GRADED GRAVEL with SAND, gray, moist, very dense (GW).		
	86.5				End of Boring at 86.5 feet.		
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-16 | SHEET: 1 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-16
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.6	17-19-12 (31)	WELL GRADED GRAVEL with SAND, gray, moist, dense, (GW).	GW	3/4 inch diameter rock fragments.
	6.5						
	10.0						
10		S2	0.0	5-3-7 (10)	No recovery.		1-1/2 inch rock in sampler.
	11.5						
	15.0						Drilled through fill at 14 feet.
15		S3	0.0	2-1-2 (3)	No recovery.		
	16.5						
	20.0						
20		S4	1.3	1-1-3 (4)	SILT, gray, moist, soft, with organics (ML).	ML	Roots present through bottom 5 inches of sample.
	21.5						Gravel layer, from 23 1/2 to 24 1/2 feet.
	25.0						
25		S5	1.0	2-3-2 (5)	SILTY CLAY, gray with some brown staining, wet, firm (CL-ML).	CL-ML	
	26.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-16 | SHEET: 2 OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-16
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30	32.0	ST6	2.0	PUSH			ST6, easy push.
		S7	1.5	1-2-1 (3)	FAT CLAY, gray, wet, soft, highly plastic (CH).		
	33.5 35.0						
35		S8	2.0	1-1-1 (2)	SANDY LEAN CLAY, gray, wet, soft, slightly plastic (CL).		
	36.5						Sand at 37 1/2 feet.
	40.0						
40		S9	0.2	8-5-9 (14)	CLAYEY SAND, gray & tan, wet, stiff, clay is highly plastic (SC).		
	41.5						Back into silt at 43.5 feet.
	45.0						
45		S10	0.8	4-5-10 (23)	SANDY LEAN CLAY, interbedded with SILTY FINE SAND, CLAY: gray, wet, very stiff, moderately plastic (CL). SAND: gray, moist, medium dense, poorly graded (SM).		
	46.5						
	50.0						
50		S11	1.2	2-2-6 (8)	FAT CLAY with COARSE SAND, gray, wet, firm, highly plastic (CH).		
	51.5						
	55.0						
55		S12	1.1	3-3-2 (5)	SILT with SAND, gray, wet, firm, slightly to moderately plastic, sand, fine grained (ML).		
	56.5						
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-16 | SHEET: 3 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-16
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S13	1.3	5-5-7 (12)	SILT with SAND and GRAVEL, gray, wet, stiff,(ML)		
	61.5						
	65.0						
65		S14	1.7	3-3-6 (9)	SILT, gray, wet, stiff, slightly plastic (ML) interbedded with SILTY SAND, wet, loose, sand, medium grained and well graded (SM).		
	66.5						
	70.0						
70		S15	1.2	17-11-3 (14)	SILT, gray, wet, stiff, slightly to moderately plastic (ML).		
	71.5						
	75.0						
75		S16	0.7	4-2-7 (9)	SANDY SILT with SILTY SAND INTERBEDS, SAND: fine, well graded, loose (SM), SILT: gray, wet, stiff, moderately plastic (ML).		
	76.5						
	80.0						
80		S17	1.3	3-2-5 (7)	As in S16.		
	81.5						
	85.0						
85		S18	1.5	7-5-5 (10)	As above, except primarily silty sand.		Went to 10 foot sample interval at 85 feet.
	86.5						
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-16 | SHEET: 4 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-16
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SOIL BORING LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
90							
	95.0						
95		S19	1.2	5-3-5 (8)	SANDY SILT to SILTY SAND, gray, wet, firm, silt, slightly plastic (ML-SM).		
	96.5						
100							
	105.0						
105		S20	0.4	5-6-8 (14)	SANDY SILT, gray, wet, stiff, moderately plastic (ML).		
	106.5						
110							
							Hard drilling at 114 feet.
115							
120							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-16 | SHEET: 5 | OF: 5

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-16
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/03/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
120		S21	0.3	60/3"	WELL GRADED GRAVEL with SAND, gray, moist, very dense (GW).		
	120.3				End of Boring at 120.3 feet.		
125							
130							
135							
140							
145							
150							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-17 | SHEET: 1 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
0							
	5.0						
5		S1	0.3	12-9-7 (16)	WELL GRADED GRAVEL with SAND, gray, moist, medium dense (GW).		Rocks to 1-1/2 inch diameter. Rock stuck in tip of sampler.
	6.5						
	10.0						
10		S2	0.0	3-1-2 (3)	No Recovery.		Cuttings appear to be gravel to very coarse sand.
	11.5						
	15.0						
15		S3	0.2	3-1-2 (3)	SILTY GRAVEL to SILTY SAND, gray to brown, wet?, loose, sand, coarse grained(GM-SM).		
	16.5						
	20.0						
20		S4	0.4	10-6-2 (8)	TOP of SAMPLE: WELL GRADED GRAVEL with SAND, gray, moist, loose, (GW). BOTTOM of SAMPLE: WELL GRADED SAND, gray, moist, fine grained, loose (SW).		
	21.5						
	25.0						
25		S5	0.7	2-2-4 (6)	FAT CLAY, gray with tan spots, moist, firm, highly plastic (CH).		
	26.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-17 | SHEET: 2 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S6	2.0	0-1-2 (3)	FAT CLAY, gray, wet, soft, highly plastic, with thin layers of fine sand (CH).		Gravel at 30 feet, about 6 inches thick. Sampler sunk first 6 inches under its' own weight.
	31.5						
	35.0						Gravel layer from 33.5 to 34.5 feet.
35		S7	0.3	3-1-2 (3)	As above (CH).		
	36.5						Sand from 37 to 37.5 feet. Gravel from 37.5 to 38.5 feet.
	40.0						
40		ST8	2.0		FAT CLAY (Top-of-Tube).		PUSH for ST8; Soft to firm to soft to firm (may be sand layers in sample).
	42.0	S9	0.7	3-3-8 (11)	SILTY SAND, gray, wet, medium, poorly graded, fine grained (SM).		
	43.5						
	45.0						
45		S10	0.6	16-9-6 (15)	POORLY GRADED SAND, gray, moist, medium, dense, fine grained (SP).		Gravel at 44.5 feet.
	46.5						
	50.0						
50		S11	1.7	2-2-4 (6)	FAT CLAY, gray, moist, firm, highly plastic (CH).		
	51.5						
	55.0						
55		S12	1.5	3-3-3 (6)	SILT, gray, moist, firm, moderately plastic, with minor sand(ML).		
	56.5						
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-17 | SHEET: 3 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S13	1.7	3-3-5 (8)	SANDY SILT, gray, wet, firm, moderately plastic, with thin silty fine sand interbeds(ML).		
	61.5						
	65.0						
65		S14	0.3	6-10-14 (24)	SILTY GRAVEL, gray, wet, medium dense, well graded (GM).		
	66.5						
	70.0						Hard gravel layer from 68 to 69.5 feet
70		S15	0.9	6-23-35 (58)	Upper 2 inches: GRAVELLY LEAN CLAY, gray, wet, hard, moderately plastic(CL) Lower 9 inches: POORLY GRADED SAND, gray wet, fine grained, very dense (SP).		
	71.5						
	75.0						
75		S16	0.3	31-49-50 (99)	WELL GRADED GRAVEL with SAND and SILT, gray, wet, very dense (GW)		Up to 1-1/2 inch diameter gravel.
	76.5						
	80.0						Softer drilling at 78 feet.
80		S17	0.7	14-26-17 (43)	SILTY SAND, gray, wet, dense, fine grained, well graded (SM).		
	81.5						
	85.0						Scattered rocks.
85		S18	0.7	13-26-32 (58)	SILTY SAND with GRAVEL, wet, very dense, well graded, medium grained (SM).		
	86.5						
90							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-17 | SHEET: 4 | OF: 4

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
90							
	95.0						Hard drilling at 94 feet.
95							
		S19	0.4	60/5-1/2"	WELL GRADED SAND with GRAVEL to WELL GRADED GRAVEL with SAND, gray, moist, very dense(SW-GW)		
	95.5						
	100.0						
100							
		S20	0.3	60/4"	WELL GRADED SAND with GRAVEL, dark gray, moist, very dense (SW).		
	100.3						
					End of Boring at 100.3 feet.		
105							
110							
115							
120							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-18 | SHEET: 1 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
LOCATION: B-17
ELEVATION:
DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
	5.0						
5		S1	0.5	13-7-4 (11)	SILTY GRAVEL with SAND, brown, moist, medium firm, well graded (GM).		Fill.
	6.5						
	10.0						
10		S2	0.6	17-7-8 (15)	As above.		
	11.5						
	15.0						
15		S3	0.0	2-1-1 (2)	No recovery.		Appears to be pea size gravel in a silt matrix.
	16.5						
	17.5						
		S4	1.3	1-12" 1-12"	SANDY ORGANIC SILT, gray, wet, very soft with abundant clam shells (OL).		
	19.5						
	20.0						
20		S5	1.0	3-5-8 (13)	SILT, gray, moist, stiff, slightly plastic (ML).		
	21.5						
	25.0						
25		S6	1.3	4-4-8 (12)	SILT, brown, moist, stiff, slightly plastic, interbedded with gray fine sand (ML).		
	26.5						
30							

CH2M HILL

PROJECT NUMBER: SEA22562.B5 | BORING NUMBER: B-18 | SHEET: 2 | OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP
ELEVATION:
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE:

LOCATION: B-17
DRILLING CONTRACTOR: KENNER DRILLING
START: 08/03/89 FINISH: 08/04/89 LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
30		S7	1.7	2-2-3 (5)	SILTY CLAY, gray and rust brown mottled, moist, firm, moderately plastic (ML-CL).		
	31.5						
	35.0						
35		S8	0.8	18-12-10 (22)	SILTY SAND, brown, moist, medium dense, fine grained (SM).		
	36.5						
	40.0						
40		S9	1.0	4-3-2 (5)	SANDY LEAN CLAY interbedded with SILTY to CLAYEY FINE SAND, gray, clay: wet, firm to soft, highly plastic (CL). SAND, wet, loose, poorly graded (SC).		
	41.5						
	45.0						
45		S10	1.5	1-1-2 (3)	SANDY SILT, gray, wet, soft, moderately plastic, with 1-1/2 inch diameter gravel fragments (ML).		
	46.5						
	50.0						
50		S11	1.7	3-4-6 (10)	SANDY SILT interbedded with SILTY FINE SAND, gray, wet, loose, some gravel (ML to SM).		Went to 10 foot sample interval.
	51.5						
55							Gravel at 57-1/2 feet.
							Boulder at 59 feet.
60							

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | BORING NUMBER: B-18 | SHEET: 3 OF: 3

SOIL BORING LOG

PROJECT: POST POINT WWTP | LOCATION: B-17
ELEVATION: | DRILLING CONTRACTOR: KENNER DRILLING
DRILLING METHOD AND EQUIPMENT: MUD ROTARY, CME-75
WATER LEVEL AND DATE: | START: 88/03/89 | FINISH: '08/04/89 | LOGGER: D.E. MYERS

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SAMPLE REC (FT)	STD. PEN. TEST 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TEST AND INSTRUMENTATION
60		S12	0.8	46-60/4"	WELL-GRADED SAND with GRAVEL, gray green, moist, very dense, fine grained (SW).		
	60.9						Hard drilling (45 minutes for 10 feet).
65							
	70.0						
70		S13	0.7	27-31-19 (50)	WELL GRADED GRAVEL with SAND and SILT, gray, moist, very dense, (GW-GM).		
	71.5				End of boring at 71-1/2 feet.		
75							
80							Went to 10 foot sample interval.
85							Gravel at 57-1/2 feet.
90							Boulder at 59 feet.

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-1 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-1 | LOGGER: B.M. WITEK
ELEVATION: 13.4' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: NONE ENCOUNTERED | APPROX.DIMENSIONS: Length: 10' Width: 2-2.5' Maximum Depth: 5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			GRAVELLY SILT, gray with areas of orange, slightly moist, about 30% subrounded gravel, up to 4" maximum size, mostly 1-1/2" minus or less, (ML) grading to a SILTY SAND with GRAVEL between 2-3', except with about 10-15% fines, and moist (SM).		
	2.0				
		J1			
	3.0				
5			END OF TEST PIT AT 5 FEET.		Hit a manhole at a depth of 5', decided to abandon hole and redig further south.
10					
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-2 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-2 | LOGGER: B.M. WITEK
ELEVATION: 13.4' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: 6' - 07/13/89 | APPROX.DIMENSIONS: Length: 12' Width: 2-4' Maximum Depth: 8'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, gray to gray-brown, slightly moist, with about 20% subrounded gravel, mainly 1-1/2" minus, but with cobbles up to 10", with occasional wood waste and shells, grading to a silty sand with gravel with zones of a dark gray sandy clay with gravel (ML).		Much harder digging than TP-1. Test pit located at boundary of peat removal.
5			POORLY GRADED GRAVEL with SAND, gray-brown, wet, 1-1/2" minus, loose (GP).		Hit a softer zone at about 5 to 5-1/2'.
			PEAT, brown, moist, soft (PT).		Hit water at 6', sides of test pit walls starting to cave and slough. Strong sulfur smell in peat.
			Further east, peat removed - below poorly graded gravel with sand is a dark gray, wet, clayey sand, soft (SC), possibly lean clay with sand (CL).		Peat located west of limits - will dig further east to determine extent of removal.
			Terminated digging at 8' because of excessive sloughing of side walls below water table. END OF TEST PIT AT 8.0 FEET.		
10					
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-3 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-3 | LOGGER: B.M. WITEK
ELEVATION: 13.1' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: 8' - 07/13/89 | APPROX.DIMENSIONS: Length: 15' Width: 2-2.5' Maximum Depth: 9.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown with areas of gray in color, slightly moist, hard, with about 15% gravel, subrounded to subangular, mainly 2" minus (ML).	ML	
	3.0				
		J1	CLAYEY-SILTY SAND, dark gray, moist, with occasional gravel (SM to SC), grades into a CLAYEY SAND with GRAVEL, brown-gray, moist medium dense (SC).	SC	
	4.0				Gray material comes out in chunks, appears to represent other types of fill within the fill.
5			PEAT, brown, moist, soft, contains roots and wood fibers (PT).	PT	
			POORLY GRADED GRAVEL with SAND, with many broken shells, we, gray, soft (GP).	GP	Water seepage at 8'. Strong sulfer smell at 8'.
10			END OF TEST PIT AT 9.5 FEET.		
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-4 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-4 | LOGGER: B.M. WITEK
ELEVATION: 14.1' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: 7' - 07/13/89 | APPROX.DIMENSIONS: Length: 18' Width: 2-2.5' Maximum Depth: 13.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, stiff, with about 10-15% subrounded gravel, mainly 2" minus, some larger cobbles up to 12" (ML).	ML	
			POORLY GRADED SAND with SILT and GRAVEL, brown and dark gray mottled, moist, medium dense, with up to 15% subrounded gravel (SP-SM).	SP-SM	Unit contains some chunks of material that consists of gray, moist to wet, sandy clay with occasional gravel.
5					
			CLAYEY SAND with GRAVEL, gray with brown mottling, moist to wet, with up to 20% subrounded gravel, medium firm to stiff (SC).	SC	Water seepage at about 7', large boulder, 28" maximum dimension at 7-9' in site of test pit wall.
	8.0				
		J1			
	9.0				
10					
			INTERBEDDED CLAYEY SAND, same as above, POORLY GRADED SAND and LEAN CLAY, all with broken shells, gray, wet, soft (CL, SP).	CL, SP	At about 12' hit zone of interbedded tidal deposits.
			END OF TEST PIT AT 13.5 FEET.		
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-5 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-5 | LOGGER: B.M. WITEK
ELEVATION: 14.4' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL & DATE: WET BELOW 3' 07/13/89 | APPROX.DIMENSIONS: Length: 15' Width: 2-2.5' Maximum Depth: 8.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, stiff, with about 10-15% subrounded to subangular gravel, gravel mainly 2" minus, but containing boulders up to 18" (CL).		
					Soil wet below 3 feet, but no seepage.
			SANDY LEAN CLAY with local zones of PEAT, blue-gray, moist to wet, medium firm (CL). PEAT, brown, wet, soft (PT).		Slight sulfur odor to this layer, sides of test pit wall cave slowly into hole after loosing side support.
5					
			END OF TEST PIT AT 8.5 FEET.		Terminated at 8.5' because of excessive sloughing of side walls.
10					
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-6 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-6 | LOGGER: B.M. WITEK
ELEVATION: 15.3' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: 6' - 07/13/89 | APPROX.DIMENSIONS: Length: 10' Width: 2-2.5' Maximum Depth: 9'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, hard, with up to 10% subrounded to subangular gravel (ML).		
	3.0		CLAYEY SAND with GRAVEL, gray, moist, hard, with about 35% subrounded gravel, mainly 1.5" minus, but with occasional boulders up to 18" (SC).		
		B1			
	4.0				
5			PEAT, brown, wet, soft, with wood pieces and fibers (PT).		Peat has strong sulfur smell.
			At base of peat layer, erratic grading into brown to gray, wet, SILT and POORLY GRADED SAND, with occasional gravel (ML to SP).		Terminated hole at base of peat layer.
10			END OF TEST PIT AT 9 FEET.		
15					

TPLS9M 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-7 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-7 | LOGGER: B.M. WITEK
ELEVATION: 16.1' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/13/89
WATER LEVEL AND DATE: 5-6' - 07/14/89 | APPROX.DIMENSIONS: Length: 25' Width: 2-4' Maximum Depth: 12.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, stiff to hard, with 5-15% subrounded gravel (ML).	ML	
			SANDY LEAN CLAY, gray, moist, stiff, with up to 5-10% subrounded gravel, with localized minor zones of wood and peat (CL).	CL	Sides of test pit wall caving from about 2-6.5'.
					Large log (7' in length, 12" diameter), at depth of about 6' in test pit; moved further north to continue excavating test pit. Went further north and hit a 2' diameter tree at a depth from 2-4' - decided to move south to continue excavating test pit.
5			ORGANIC SILT, dark brown, wet, soft to medium firm, with many pieces of wood (OH), grades into PEAT, brown, wet, soft (PT). Peat contains pods of light brown, wet, soft, organic - silt/clay within.	OH/PT	Localized water seeps at about 5-6'
10			LEAN CLAY, gray, wet, soft to medium firm, with occasional broken shells (CL).	CL	
			END OF TEST PIT AT 12.5 FEET.		
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-8 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-8 | LOGGER: B.M. WITEK
ELEVATION: 17.3' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: MINOR SEEPAGE AT 10' | APPROX.DIMENSIONS: Length: 15' Width: 2-4' Maximum Depth: 11.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, hard, with about 15-25% subrounded gravel, mainly 2" minus, occasionally larger, one large subangular boulder 29" in dimension at a depth of about 1.5' (ML).	ML	
			SANDY LEAN CLAY, gray with some brown mottling, moist to wet below 4', with 10% subrounded gravel up to 6" (CL).	CL	Sides of test pit wall squeezing and caving into pit from 4-9'.
5					
					Minor seepage - one corner of test pit wall at 10'.
10			Trace of peat at about 11', below that sandy zones (SP-SM), within the sandy clay.	SP-SM	
			END OF TST PIT AT 11.5'.		
15					

TPCSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-9 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-9 | LOGGER: B.M. WITEK
ELEVATION: 17.4' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: 7-8' - 07/14/89 | APPROX.DIMENSIONS: Length: 15' Width: 2-3' Maximum Depth: 12.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT, brown, slightly moist, stiff, with about 5% to 10% subrounded to subangular gravel (ML).	ML	
			CLAYEY SAND with GRAVEL, gray, moist, medium firm, with about 10% subrounded gravel and cobbles, mainly 1" minus, up to 6" occasionally.		
5			SANDY ORGANIC SILT, dark gray, wet, medium firm, with wood pieces (OL).	OL	
	6.0	J1			
	8.0		PEAT, brown, wet, soft, with wood pieces (PT).	PT	
10			CLAYEY SAND interbedded with local zones of LEAN CLAY and POORLY GRADED SAND, gray, wet, soft to medium firm, (SC, with zones of CL and SP).	SC	
			END OF TEST PIT AT 12.5 FEET.		Test pit walls remained vertical during excavation.
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-10 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-10 | LOGGER: B.M. WITEK
ELEVATION: 15.5' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: NONE ENCOUNTERED | APPROX.DIMENSIONS: Length: 20' Width: 2' Maximum Depth: 13.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT with GRAVEL, brown, slightly moist, stiff to hard, with 10% fine sand, up to 20% subrounded gravel 3" minus, occasionally larger (ML).		
			SANDY LEAN CLAY to CLAYEY SAND, gray, moist, with up to 15% subrounded gravel, hard, with occasional wood (CL to SC).		
			Becoming mottled brown at 4.5'.		
5					
			Becoming gray, with some brown mottling below 7'.		
					Side walls standing vertical the total depth of the hole.
10					
			Trace of broken shells at 12.5'.		
			END OF TEST PIT AT 13.5 FEET.		
15					

TPLSYM I0729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-11 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-11 | LOGGER: B.M. WITEK
ELEVATION: 14.6' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: NONE ENCOUNTERED | APPROX.DIMENSIONS: Length: 15' Width: 2-2.5' Maximum Depth: 12.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL LOG	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT, brown, slightly moist, stiff to hard, with 5-10% subrounded gravel (ML).		
			SANDY LEAN CLAY, gray with brown mottling, moist, with 10% subrounded gravel, mainly 1" minus (CL).		Side walls stayed vertical during duration of excavation.
5			POORLY GRADED SAND with SILT, brown, moist, sand is fine to medium grained, with occasional subrounded gravel up to 4" in diameter (SP-SM).		
10			SANDY LEAN CLAY with GRAVEL, blue-gray, wet, with about 30-40% subrounded gravel, 3/4" minus with localized zones of black organic silt and brown peat, and occasional shells (CL).		
			END OF TEST PIT AT 12.5 FEET.		
15					

TPLSYR 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-12 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-12 | LOGGER: B.M. WITEK
ELEVATION: 17.3' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: 10' 07/14/89 | APPROX.DIMENSIONS: Length: 17' Width: 2' Maximum Depth: 10.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SY MBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE, GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT, brown, moist, medium firm, topsoil (ML).	ML	
			SANDY LEAN CLAY with GRAVEL, gray-brown with zones of gray mottling, moist to wet, hard, gravel, mainly 2" minus, but with cobbles up to 8", becoming gray at about 2' (CL).	CL	Slow digging in sandy lean clay.
					Occasional large boulders 1-2' in diameter.
5					Test pit walls held vertical sides.
	9.0				
		J1	FAT SANDY CLAY to SANDY LEAN CLAY, gray, wet, soft, with many broken shells, top of unit had trace of peat within it, with about 10% rounded gravel about 1/2" minus (CL to CH), units are complexly interbedded.	CH/CL	
10	10.0				
			END OF TEST PIT AT 10.5 FEET.		
15					

TPLSYM 10729787

CH2M HILL

PROJECT NUMBER: SEA22462.B5 | TEST PIT NUMBER: TP-13 | SHEET: 1 | OF: 1

TEST PIT LOG

PROJECT: POST POINT WWTP | LOCATION: TP-13 | LOGGER: B.M. WITEK
ELEVATION: 18.8' | CONTRACTOR: CITY OF BELLINGHAM
EXCAVATION EQUIPMENT: FORD 655A BACKHOE W/16" BUCKET | DATE EXCAVATED: 07/14/89
WATER LEVEL AND DATE: NONE ENCOUNTERED | APPROX.DIMENSIONS: Length:NR | With: 2-3' | Maximum Depth 11.5'

DEPTH BELOW SURFACE (FT)	SAMPLE INTERVAL (FT)	SAMPLE TYPE AND NUMBER	SOIL DESCRIPTION: SOIL NAME, COLOR, MOISTURE CONTENT RELATIVE DENSITY OR CONSISTENCY SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL	SYMBOL	COMMENTS: DIFFICULTY IN EXCAVATION, RUNNING GRAVEL CONDITION, COLLAPSE OF WALLS, SAND HEAVE, DEBRIS ENCOUNTERED, WATER SEEPAGE GRADATIONAL CONTACTS, TESTS, INSTRUMENTATION
0			SILT, brown, moist, medium firm, topsoil (ML).	ML	
			SANDY LEAN CLAY to CLAYEY SAND, brown-gray mottled, moist to wet, stiff, with up to about 10% subrounded gravel and occasional boulders (CL-SC). Becoming grayer at about 2.5', included within are erratic zones of POORLY GRADED SAND with SILT, brown, wet (SM-SP).		Broke irrigation line at a depth of 2'.
					Some sloughing of test pit walls between 4.5' and 9'.
5					
					Minor peat at base of upper sandy lean clay.
			SANDY LEAN CLAY, brown with some gray mottling, wet, with about 10-15% subrounded gravel, with localized pods of peat (thin layers), and some broken shells (CL).	CL	
10					
			END OF TEST PIT AT 11.5 FEET.		Terminated test pit because of caving of test pit walls at depth.
15					

TPLS9A 10729787

APPENDIX C
RESULTS OF LABORATORY TESTING

CH2M HILL

CITY OF BELLINGHAM WWTP

TABLE B - 1

RESULTS OF LABORATORY CLASSIFICATION TESTING

Test Boring/ Sample Number	Sample Depth (feet)	Moisture Content (%)	Atterberg Limits			P-200 *	Grain Size Analyses		
			Liquid Limit	Plasticity Index	USCS	(percent)	Percent Gravel	Percent Sand	Percent ** Fines
B1/S4	10.0-11.5	8.1					49	43	8
S7	25.0-26.5	31.3	63	32	CH				
B2/S3	12.5-14.0	7.1					50	43	7
ST7	21.5-23.5	28.3	37	16	CL				
S8	23.5-25.0	15.2	69	41	CH				
S14	52.0-53.5	24.6	26	10	CL				
B3/S4	10.0-11.5	9.5					34	51	15
B4/S2	5.0-6.5	9.6					26	54	20
S3	7.5-9.0	13.4					24	36	40
S7	25.0-25.9	6.2				22.7			
B5/S3	7.5-9.0	13.6					25	45	30[1]
S8	20.0-21.5	27.5	36	18	CL				
B6/S4	17.0-18.5	19.0							
S11	50.0-51.5	12.8							
S12	55.0-56.3	8.1							
B7/ST4	20.0-22.0	32.0	31	10	CL				
S6	25.0-26.5	20.3	27	10	CL				
S10	40.0-41.5	28.1							
B8/S1	5.0-6.5	16.6							
S10	40.0-41.5	37.9	38	17	CL				
S15	65.0-66.5	10.6	24	11	CL				
S19	85.0-86.5	8.3				33.2			
B9/S10	37.0-38.5	25.4					15	22	63[2]
S13	50.0-51.4	10.2				25.8			
B10/S1	5.0-6.5	24.1	47	10	ML/OL				
ST2	10.0-12.0	29.9	44	12	ML/OL				
S4	15.0-16.5	16.0					15	66	19[3]
ST7	25.0-27.0	28.7	28	6	CL-ML				
S12	40.0-41.5	27.8	32	9	CL-ML				
S16	55.0-56.5	15.8				43.7			

Test Boring/ Sample Number	Depth (feet)	Moisture Content (%)	Atterberg Limits Liquid Limit	Plasticity Index	USCS	P-200 * (percent)	Grain Size Analyses Percent Gravel	Percent Sand	Percent ** Fines
B11/S3	15.0-16.5	27.5					7	39	54[4]
S7	35.0-36.5	6.3					38	55	7
B12/S5	22.0-23.5	31.8	56	27	CH				
S9	45.0-45.5	6.9				16.1			
B13/S2	10.0-11.5	95.6	215	89	OH				
S7	27.0-28.5	26.6				58.2			
S9	35.0-36.5	19.6					0	73	27
S14	60.0.61.5	21.3	26	8	CL				
S21	95.0-96.5	13.2					11	32	57
TP4/J1	8.0-9.0	13.6					21	57	22
TP6/B1	3.0-4.0	10.4					36	41	23
TP9/J1	6.0-8.0	23.2	43	12	OL				

NOTES:

1) Of the 30 percent fines in B5/S3, 13 percent were clay size particles (.005 microns) and the remaining 17 percent, silt size.

2) Of the 63 percent fines in B9/S10, 25 percent were clay size particles with the remaining 38 percent, silt size.

3) Of the 19 percent fine in B10/S4, 8 percent were clay size particles with the remaining 11 percent, silt size.

4) Of the 54 percent fines in B11/S3, 19 percent were clay size particles with the remaining 35 percent, silt size.

USCS (Unified Soil Classification System)

OH - Organic Clay

OL - Organic Silt/Clay

ML - Silt

CL - Lean Clay

CH - Fat Clay

CL-ML - Silty Clay

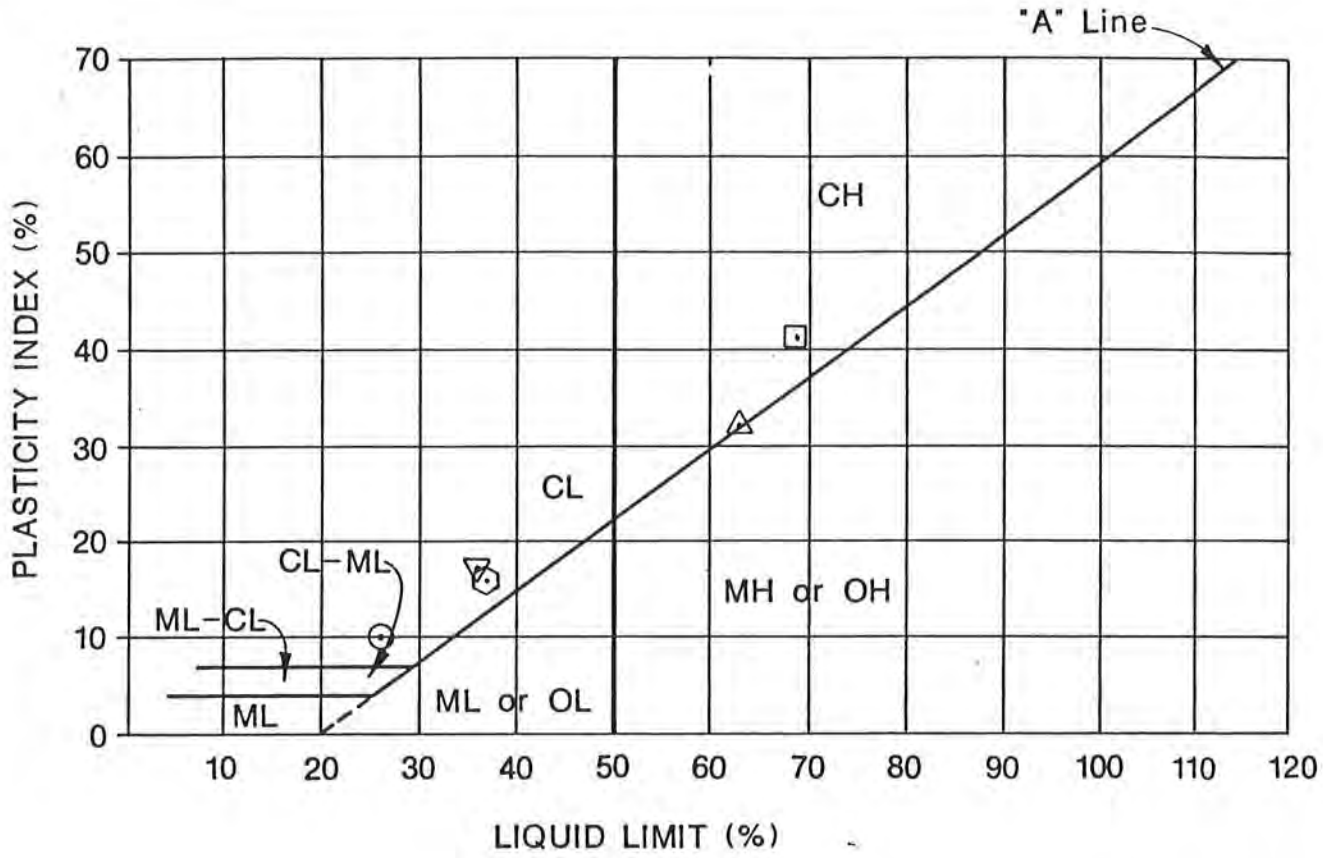
Legend

* P-200 - Percent of sample passing through the No. 200 U.S. Standard Sieve.

** Percent Gravel - percent of sample greater than No. 4 U.S. Standard Sieve.

** Percent Sand - percent of sample less than the No. 4 U.S. Standard Sieve and greater than the No. 200 U.S. Standard Sieve.

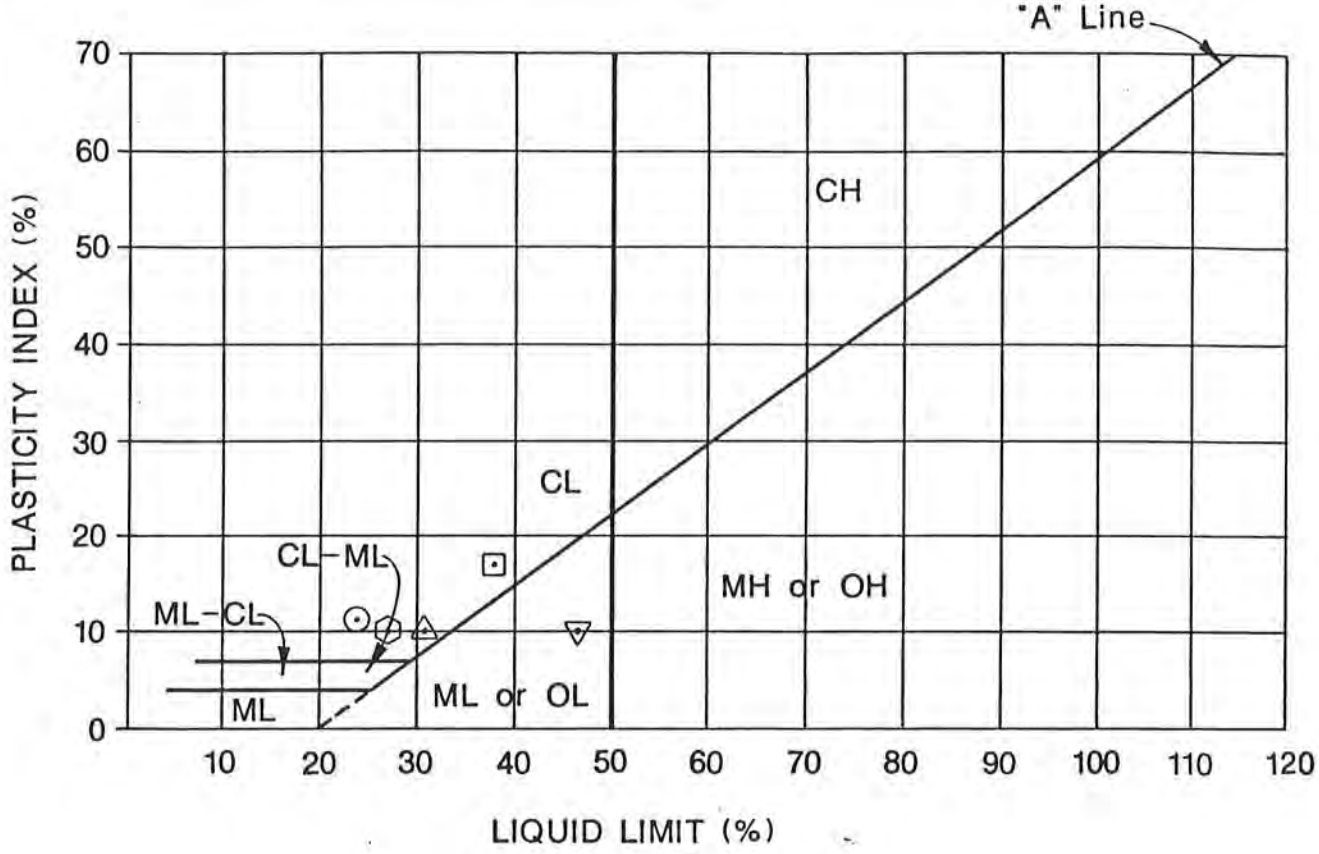
** Percent Fines - percent of sample less than the No. 200 U.S. Standard Sieve.



SYMBOL	SAMPLE		NATURAL MOISTURE	LIQUID LIMIT	PLASTICITY INDEX
△	B1-S7 (25.0'-26.5')	FAT CLAY (CH)	31.1	63	32
⬡	B2-S7 (21.5'-23.5')	LEAN CLAY (CL)	28.3	37	16
⊡	B2-S8 (23.5'-25.0')	FAT CLAY (CH)	15.2	69	41
⊙	B2-S14 (52.0'-53.5')	LEAN CLAY (CL)	24.6	26	10
▽	B5-S8 (20.0'-21.5')	LEAN CLAY (CL)	27.5	36	17

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
ATTERBERG LIMIT DETERMINATIONS

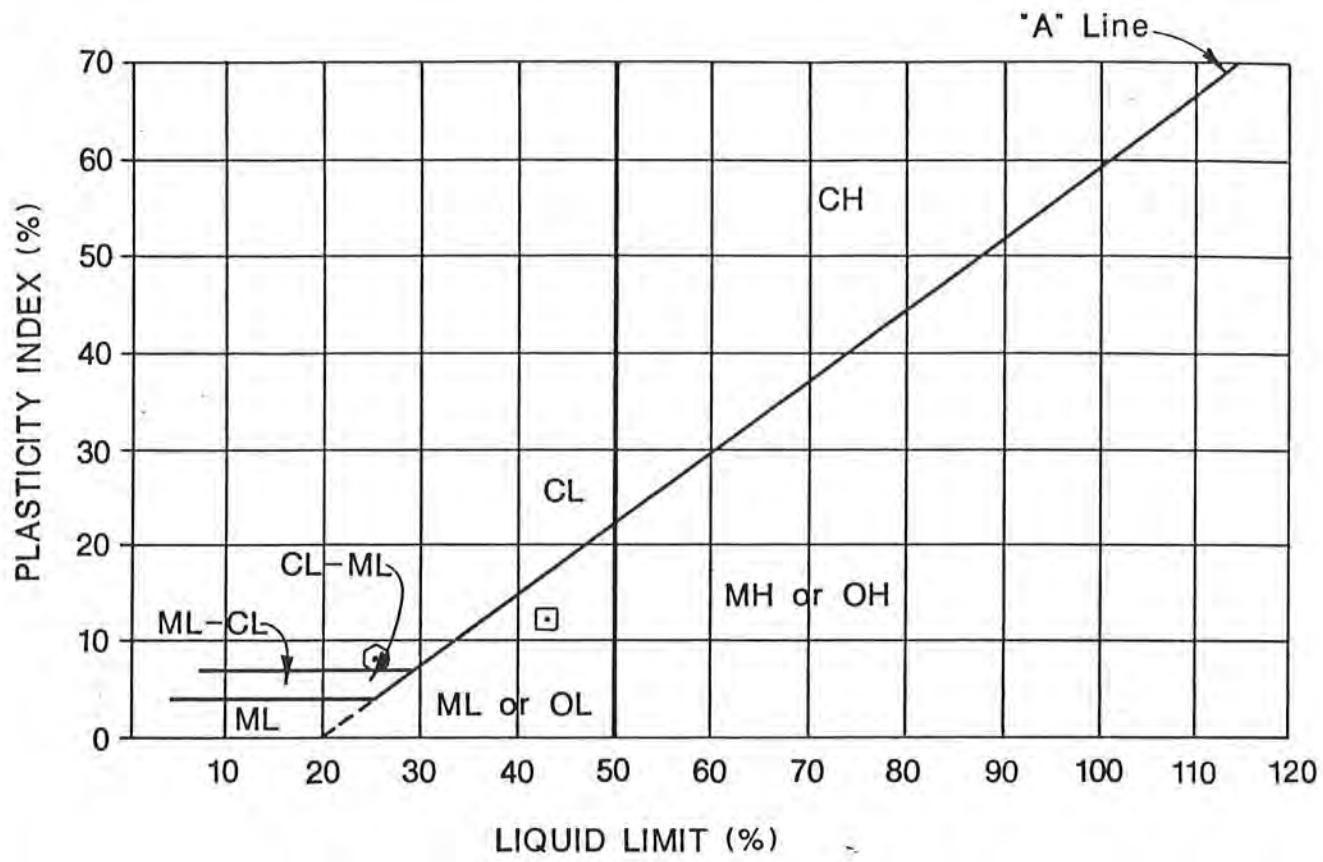
CH2MHILL



SYMBOL	SAMPLE		NATURAL MOISTURE	LIQUID LIMIT	PLASTICITY INDEX
△	B7-ST4 (20.0'-22.0')	SILT (ML)	32.0	31	10
⊙	B7-S6 (25.0'-26.5')	LEAN CLAY (CL)	20.3	27	10
⊡	B8-S10 (40.0'-41.5')	LEAN CLAY (CL)	37.9	38	17
⊙	B8-S15 (65.0'-66.5')	LEAN CLAY (CL)	10.6	24	11
▽	B10-S1 (5.0'-6.5')	SILT (ML)	24.1	46.5	10

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
ATTERBERG LIMIT DETERMINATIONS

CH2MHILL

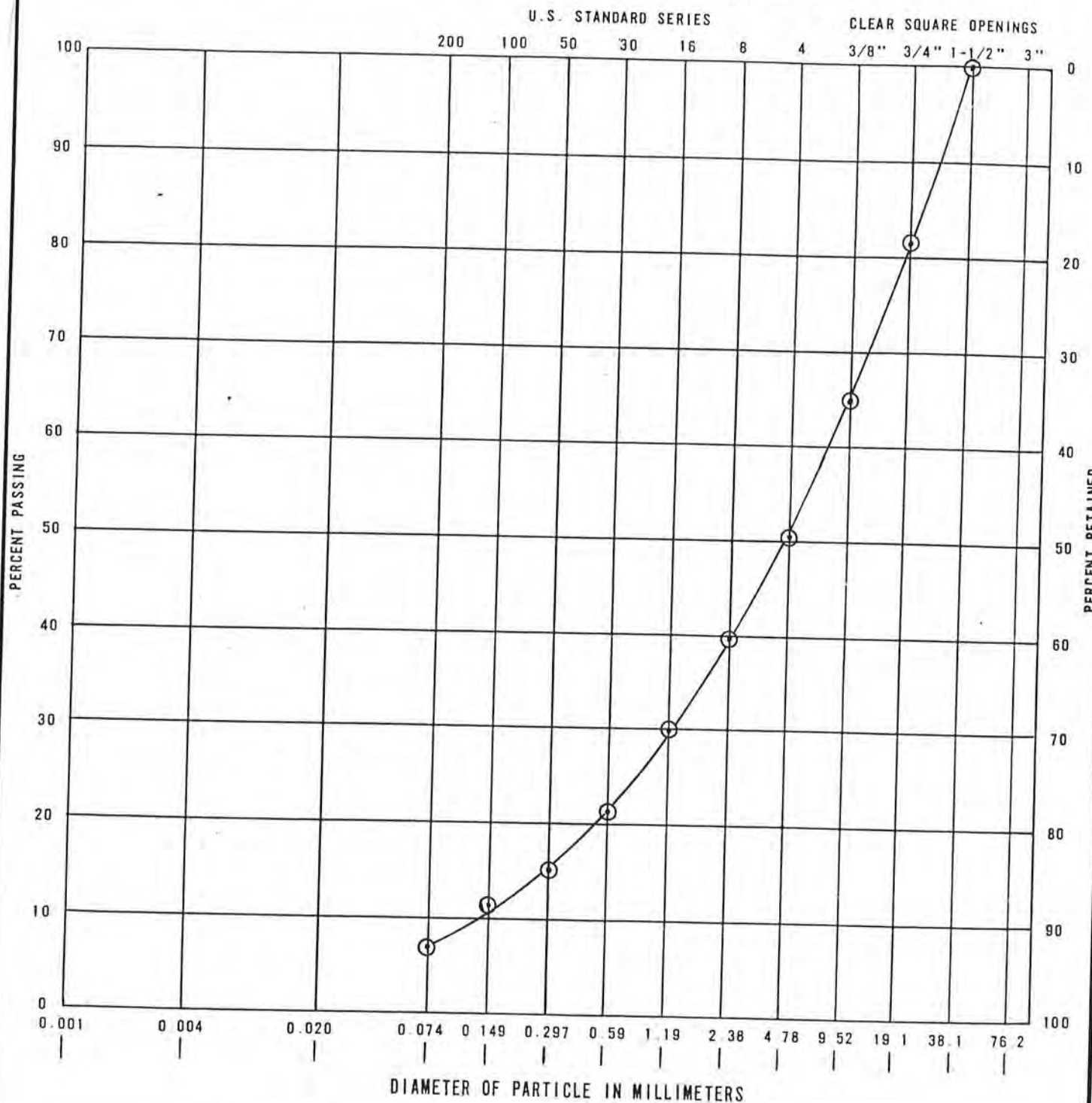


SYMBOL	SAMPLE		NATURAL MOISTURE	LIQUID LIMIT	PLASTICITY INDEX
△	B13-S2 (10.0'-11.5')	ORGANIC SILT (OH) (PLOTS OFF CHART)	95.6	215	89
⬡	B13-S14 (60.0'-61.5')	LEAN CLAY (CL)	21.3	25.7	8
⊡	TP9 (6.0'-8.0')	ORGANIC SILT (OL)	23.2	43	12

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
ATTERBERG LIMIT DETERMINATIONS

CH2MHILL

GRAIN SIZE ANALYSIS CURVES

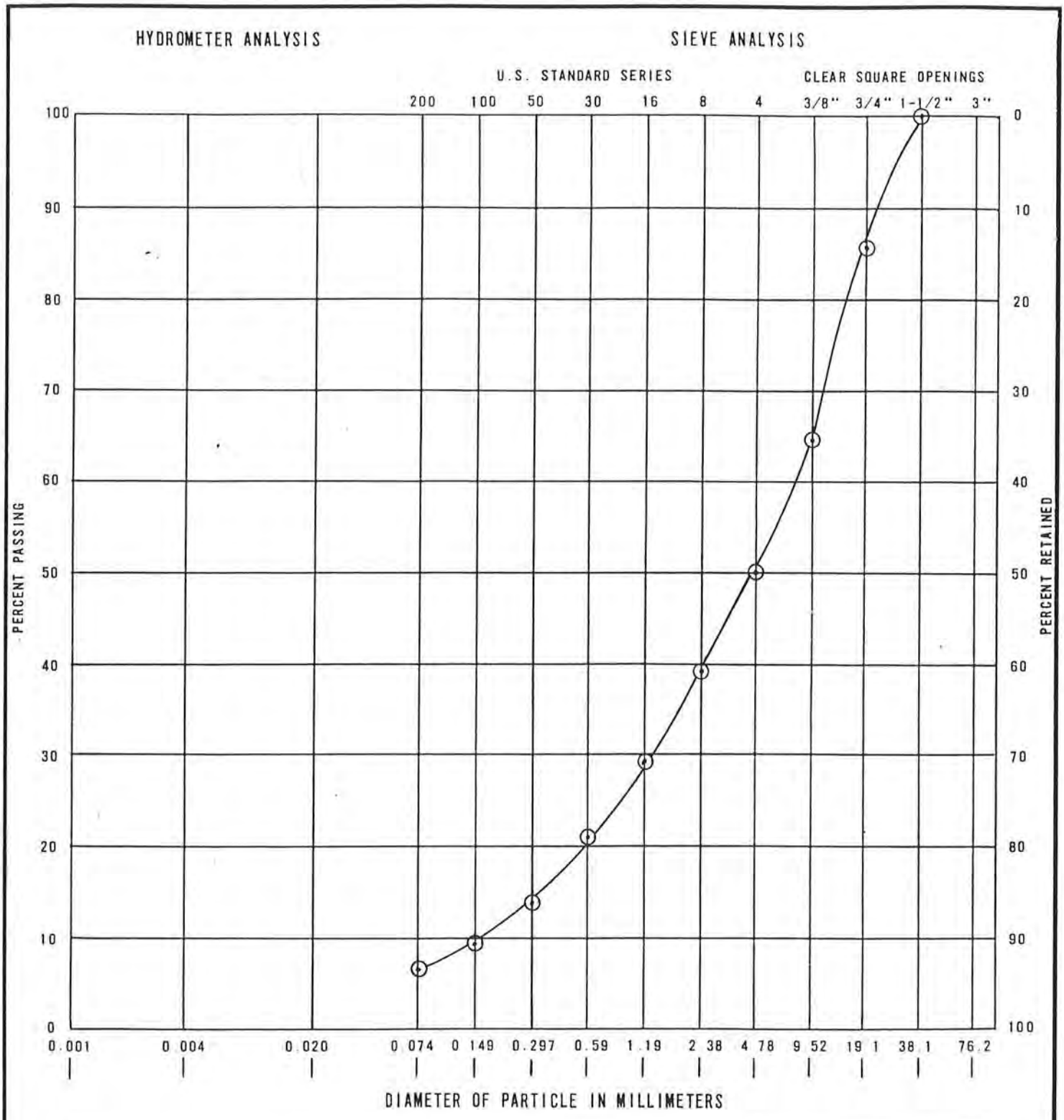


SAMPLE SOURCE
B1-S4
(10.0'-11.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



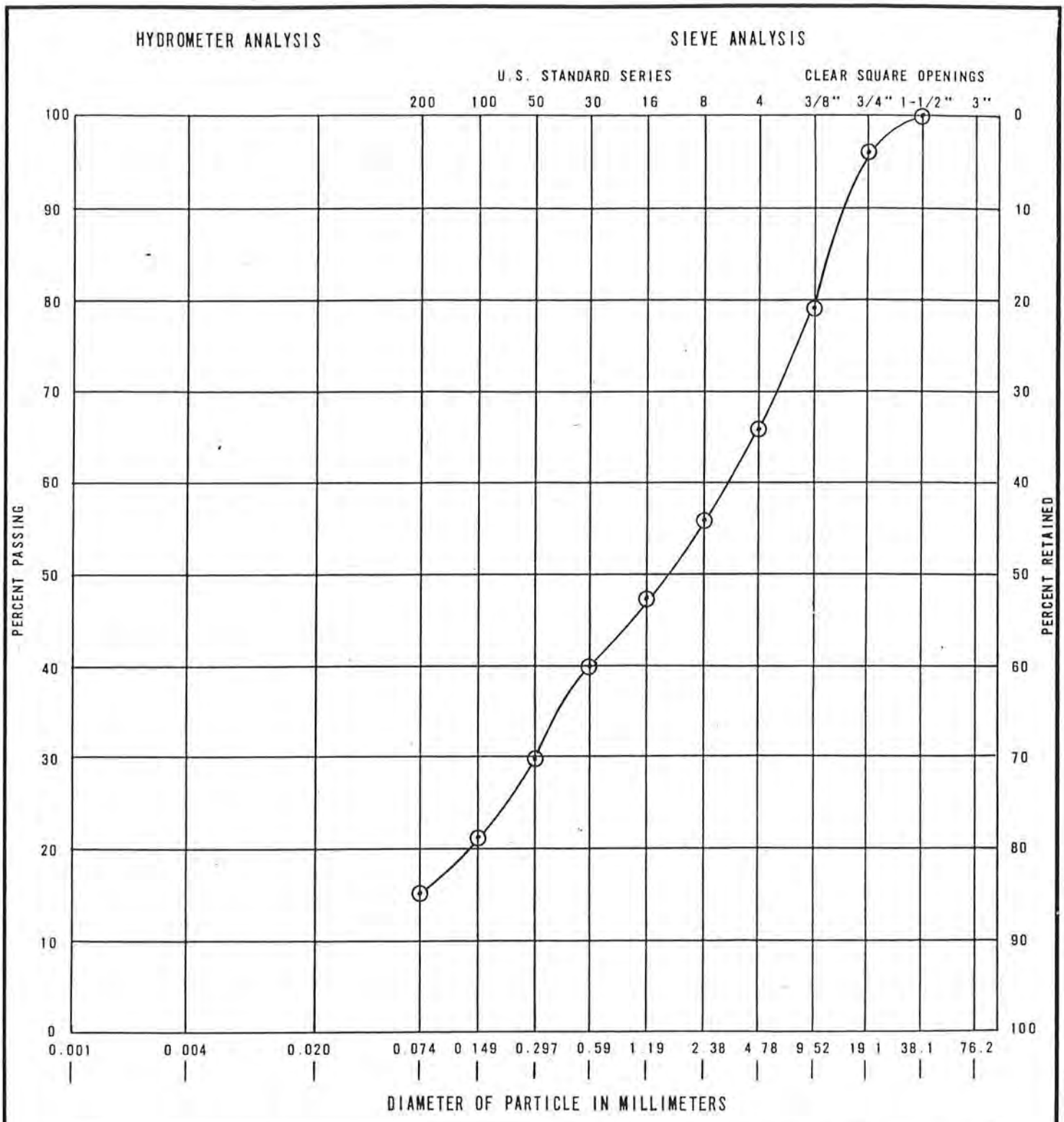
CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

SAMPLE SOURCE
B2-S3
(12.5'-14.0')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



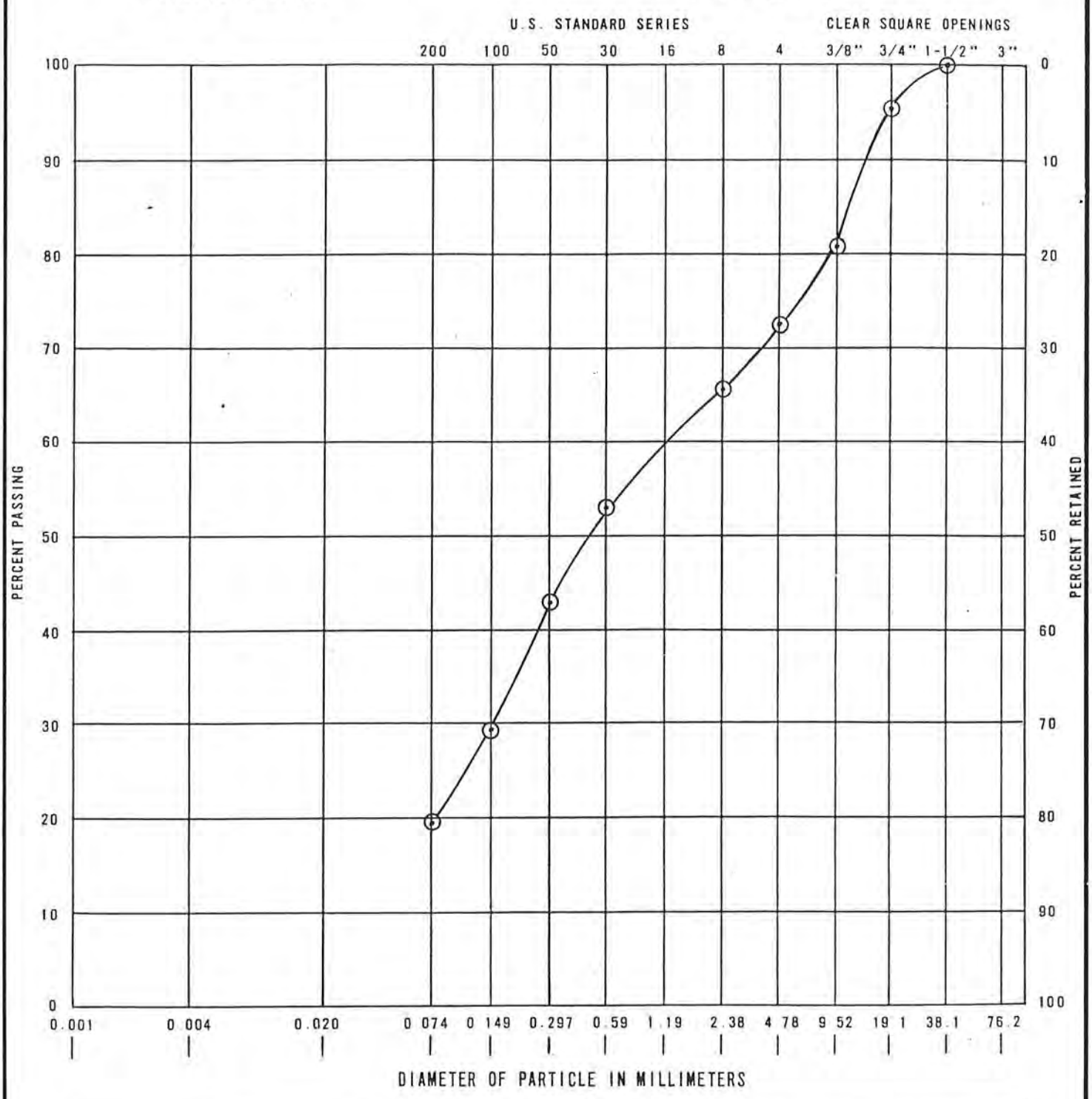
CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

SAMPLE SOURCE
B3-S4
(10.0'-11.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

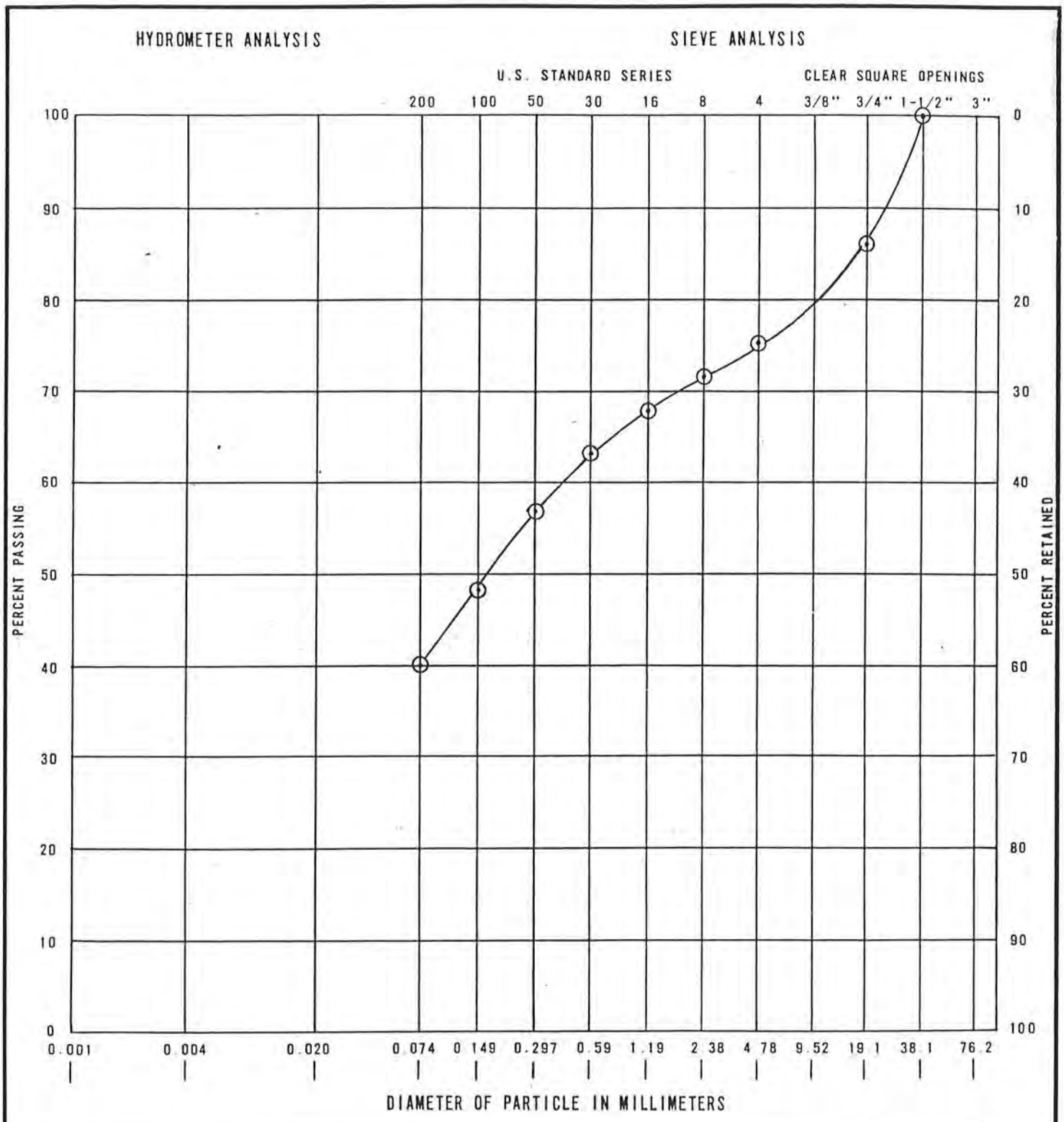


SAMPLE SOURCE
B-4-S2
(5.0'-6.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



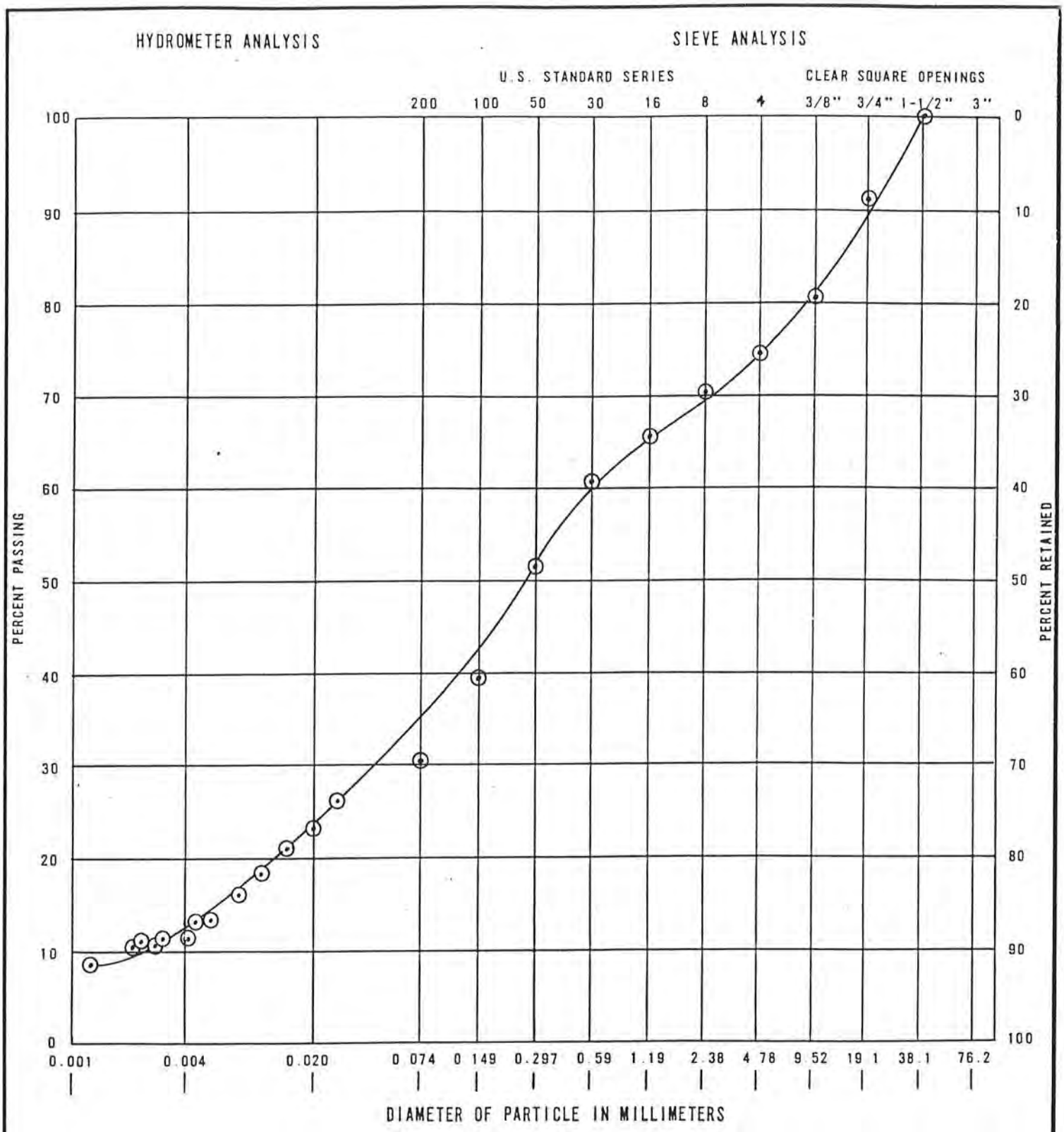
CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

SAMPLE SOURCE
B-4-S3
(7.5'-9.0')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

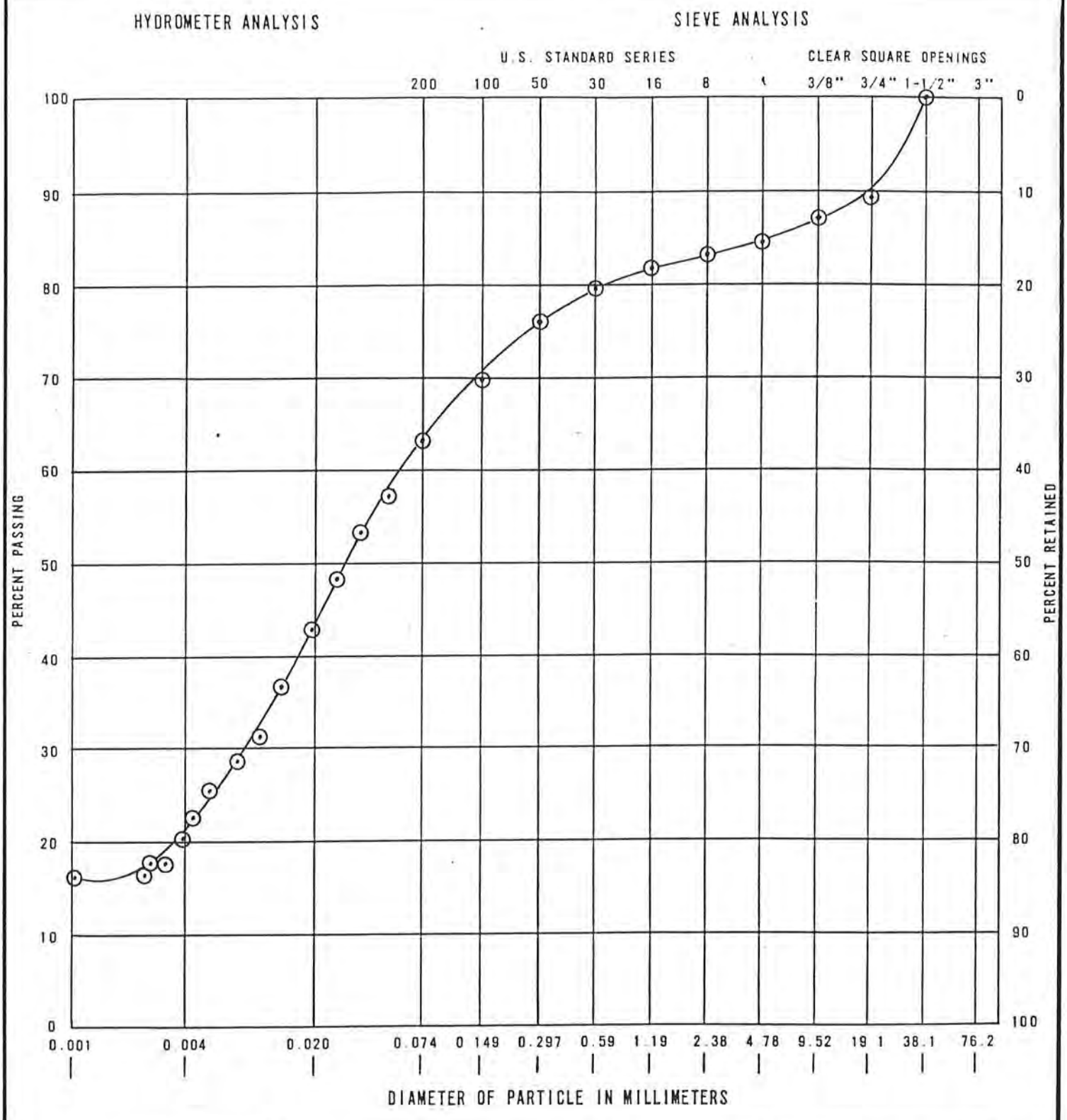


SAMPLE SOURCE
B5-S3
(7.5'-9.0')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



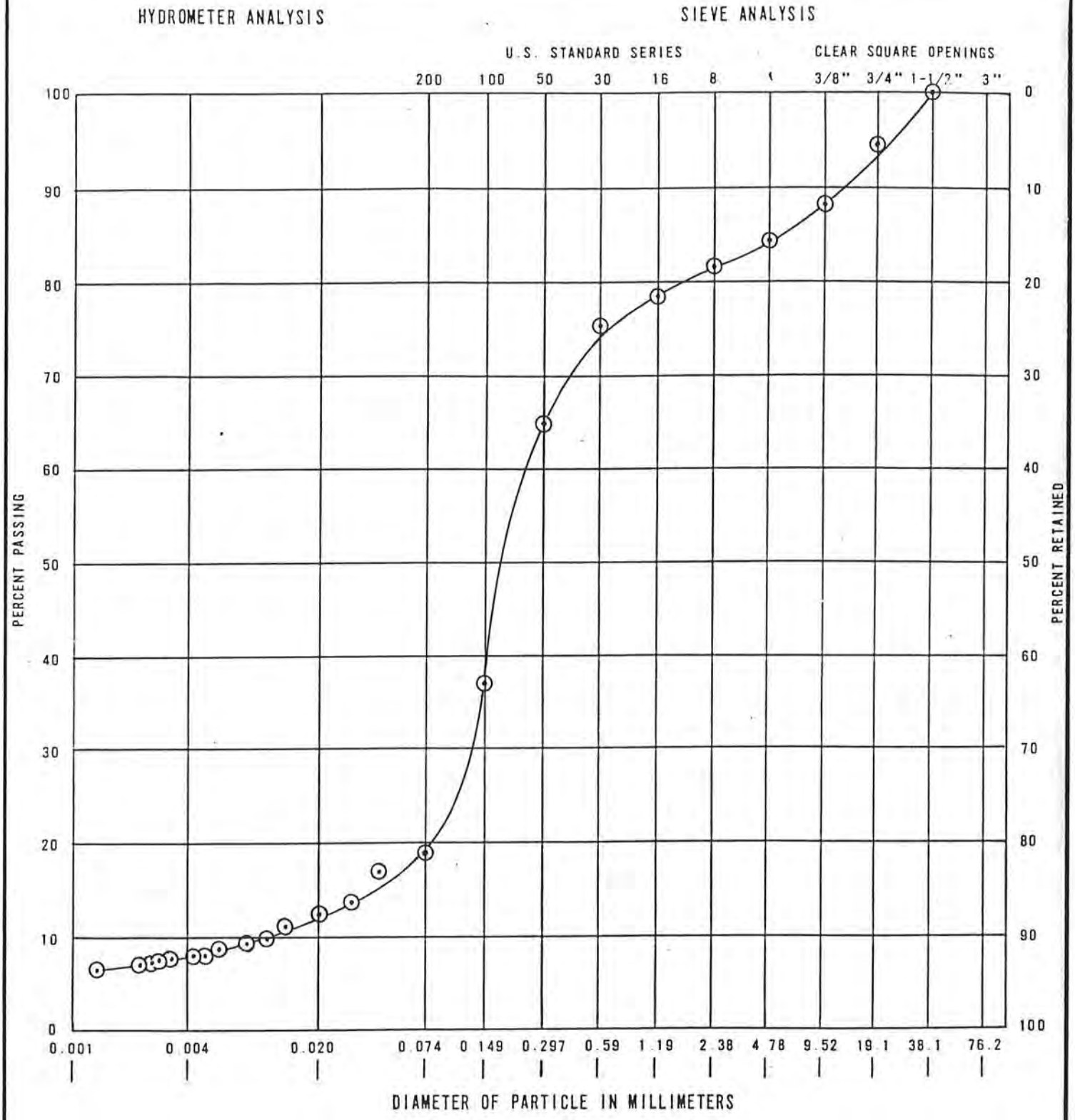
CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

SAMPLE SOURCE
B9-S10
(37.0'-38.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

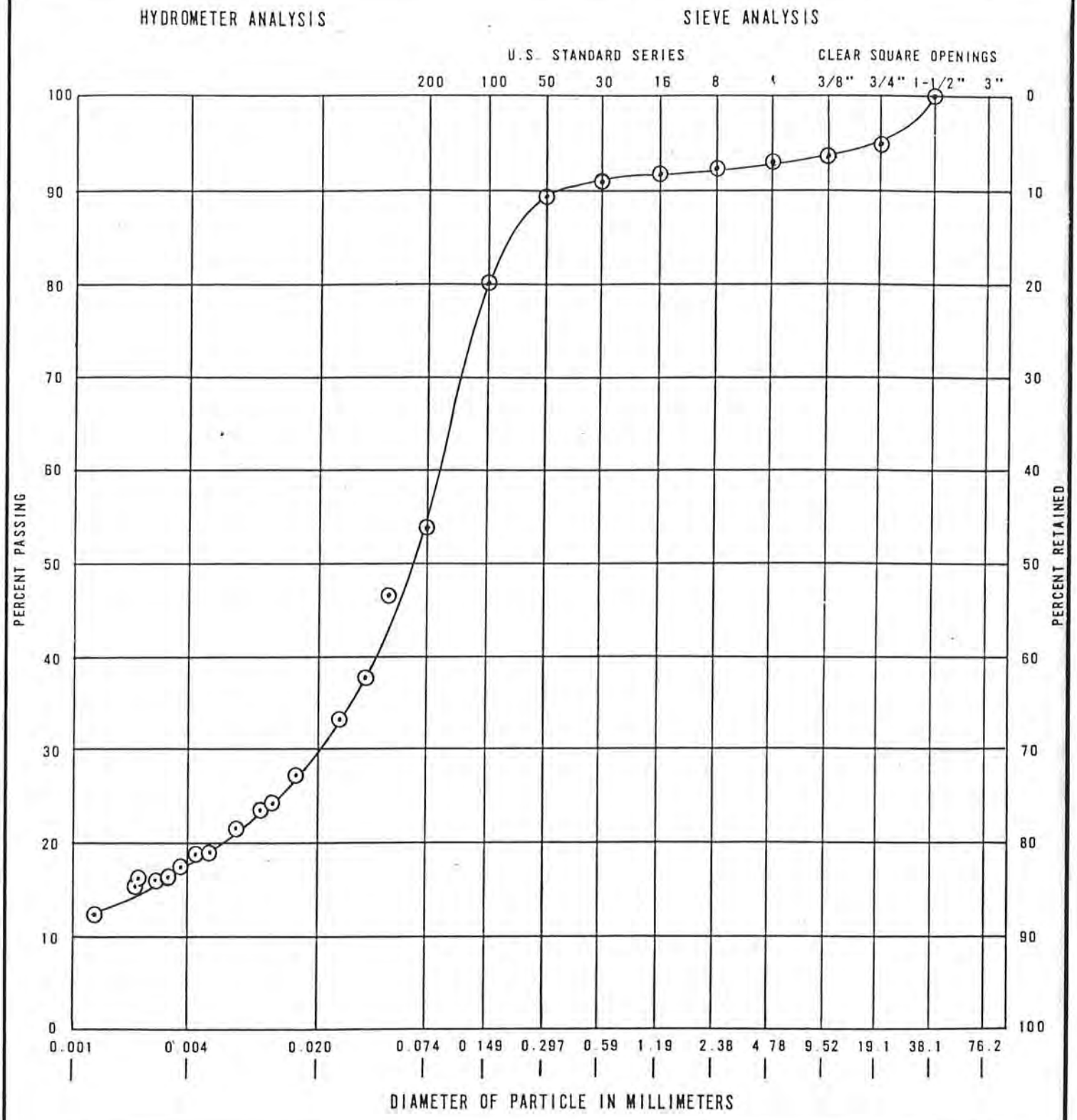


SAMPLE SOURCE
B10-S4
(15.0'-16.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

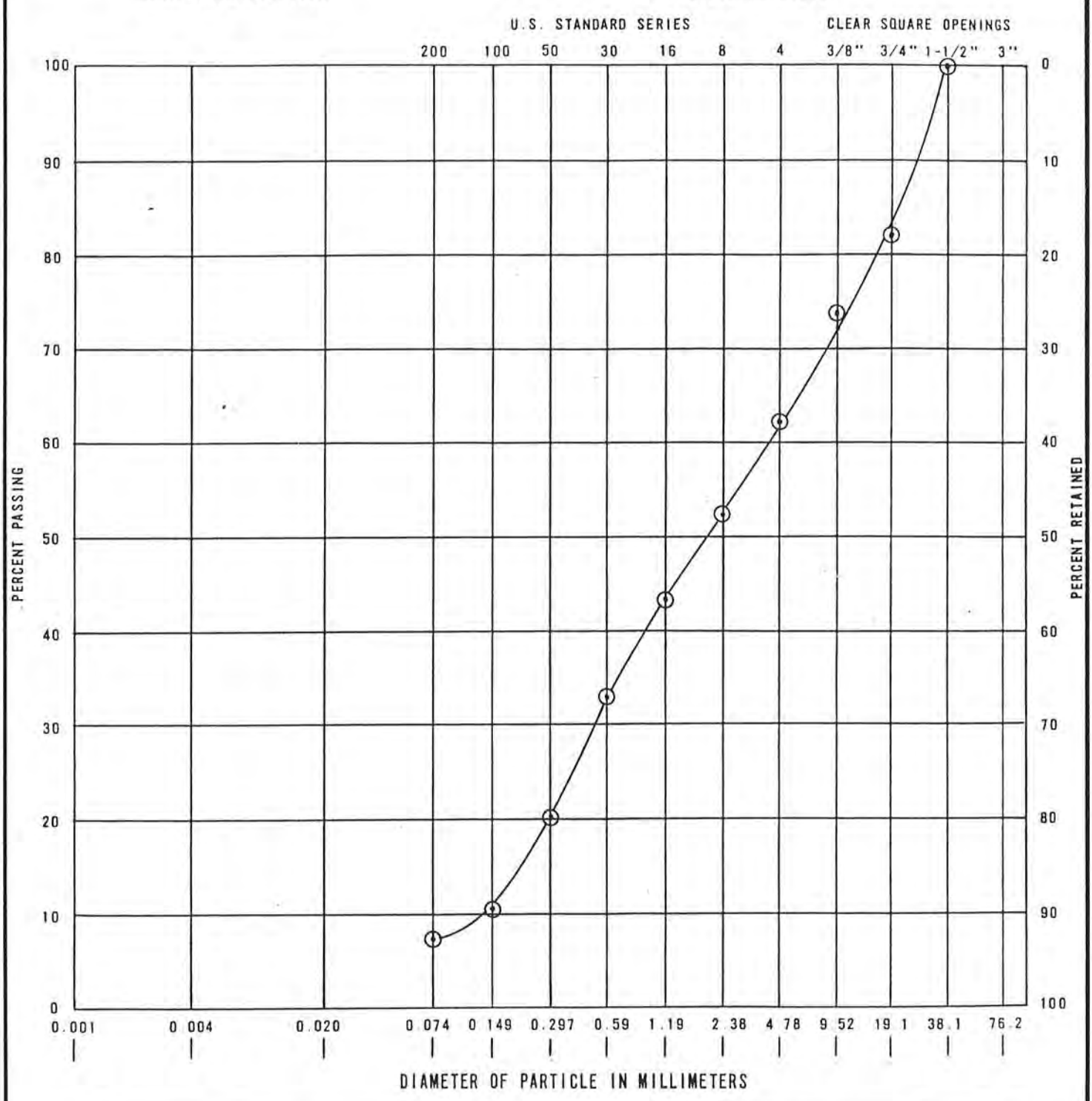


SAMPLE SOURCE
B11-S3
(15.0'-16.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

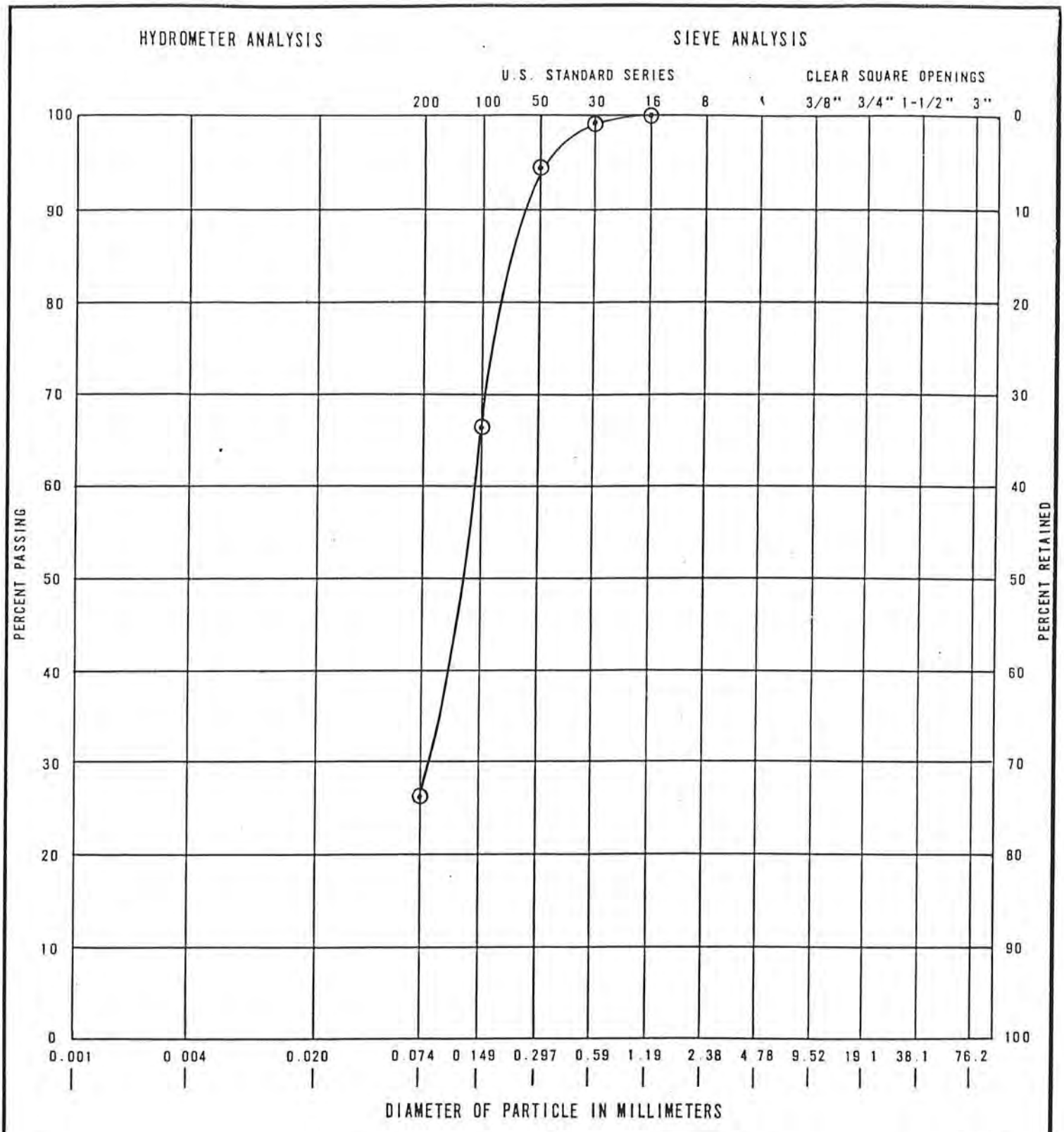


SAMPLE SOURCE
B11-S7
(35.0'-36.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

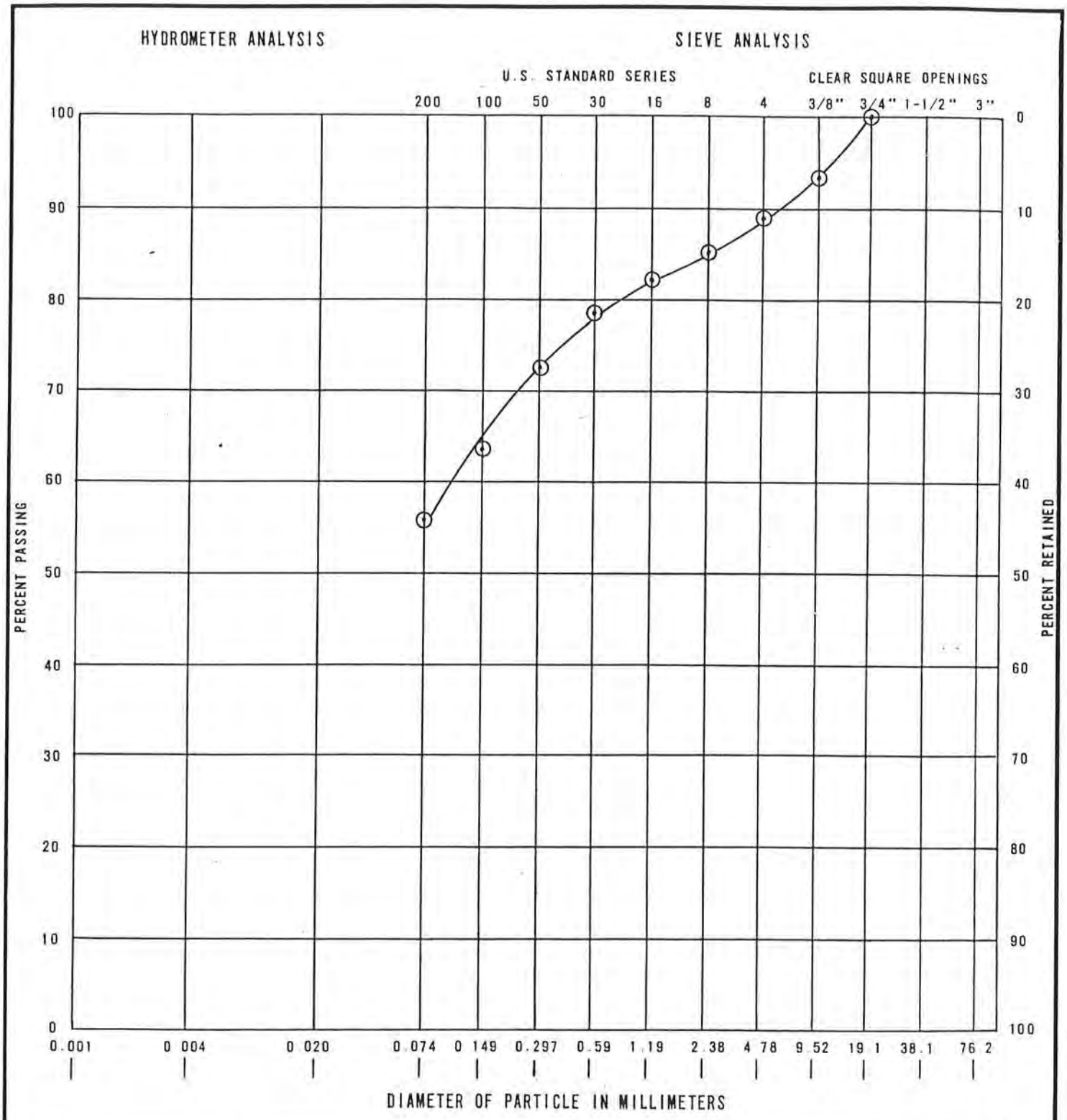


SAMPLE SOURCE
B13-S9
(35.0'-36.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

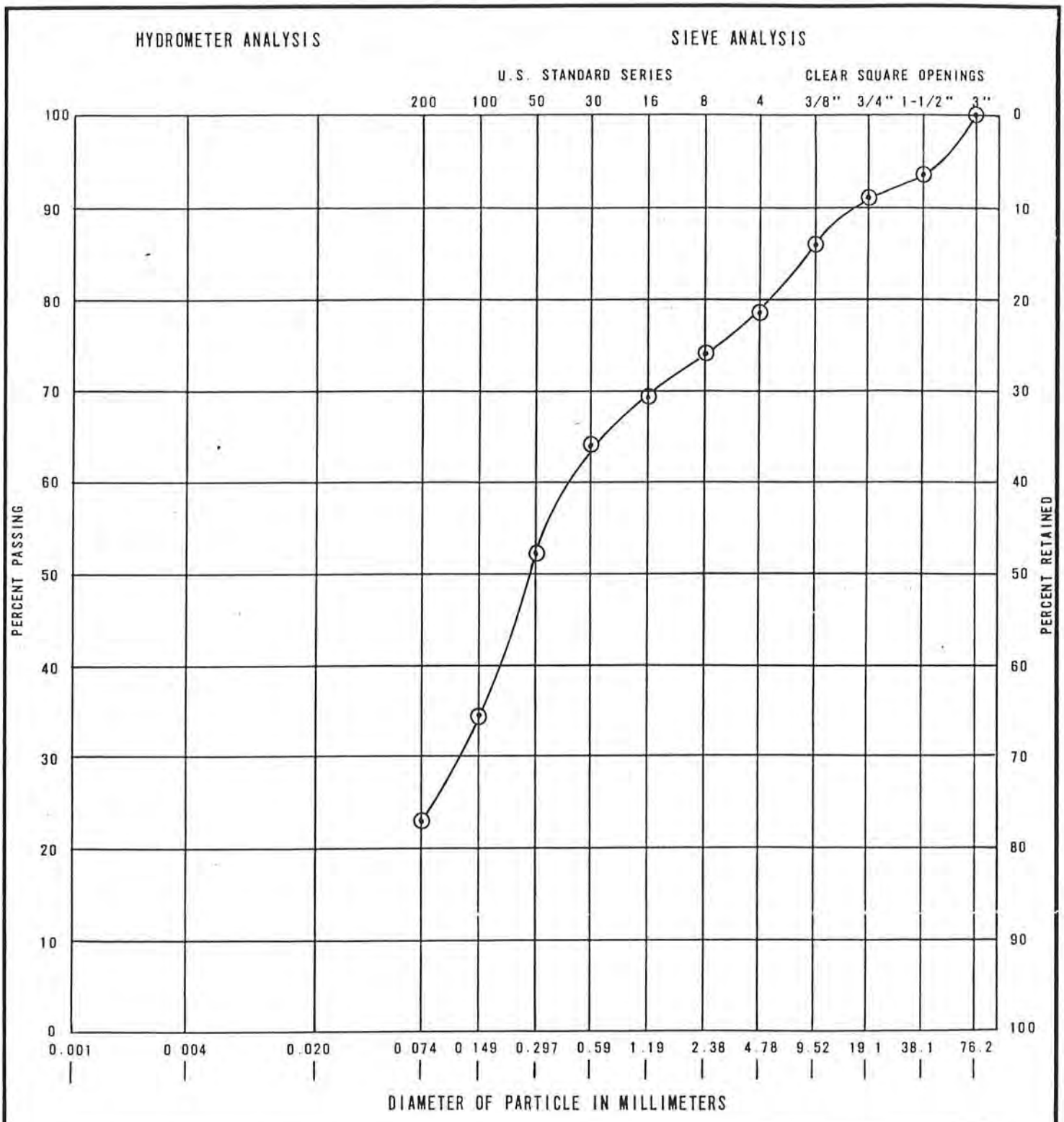


SAMPLE SOURCE
B13-S21
(95.0'-96.5')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



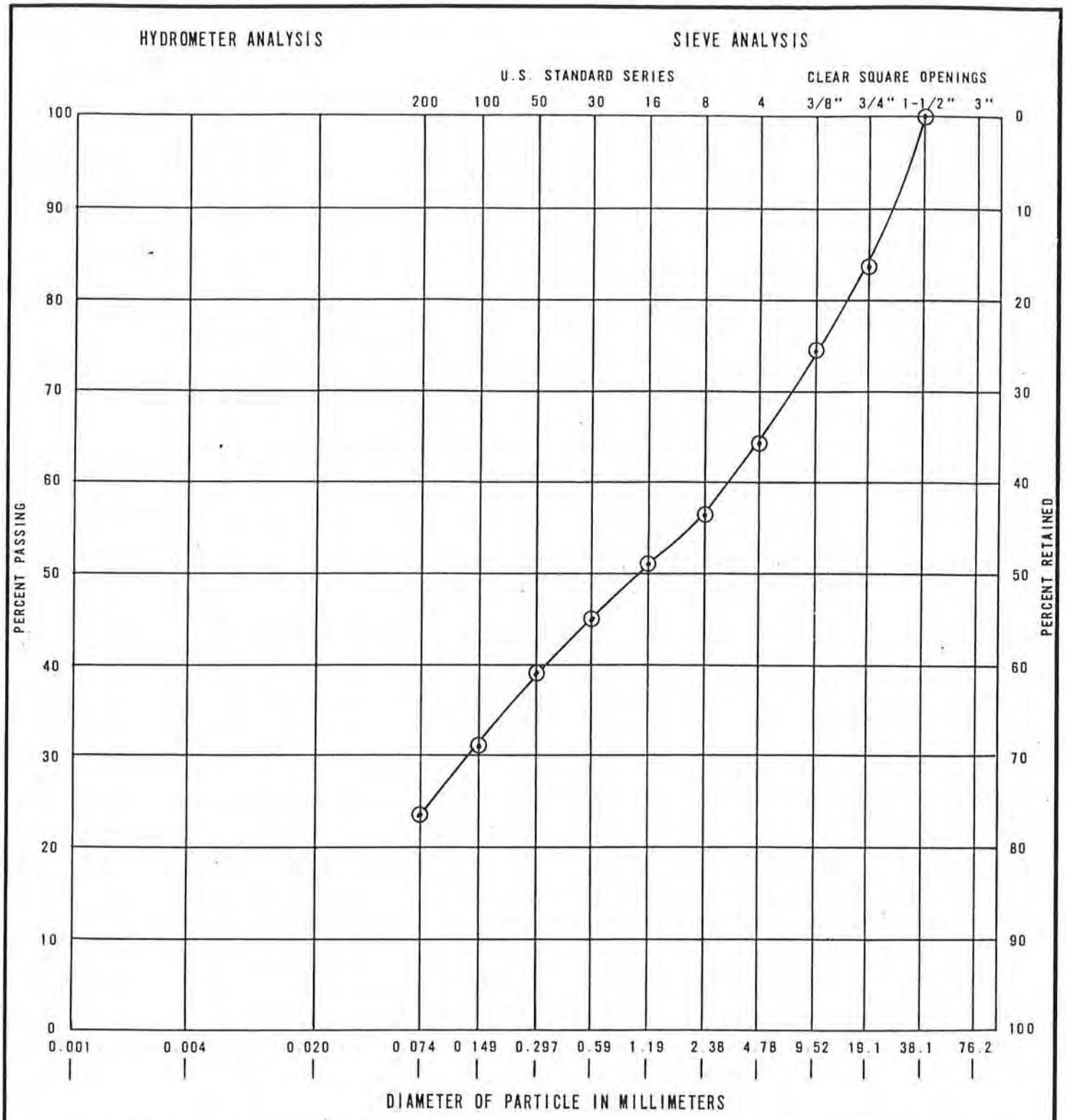
CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

SAMPLE SOURCE
TP4
(8.0'-9.0')

GRAIN SIZE ANALYSIS

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL



CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	

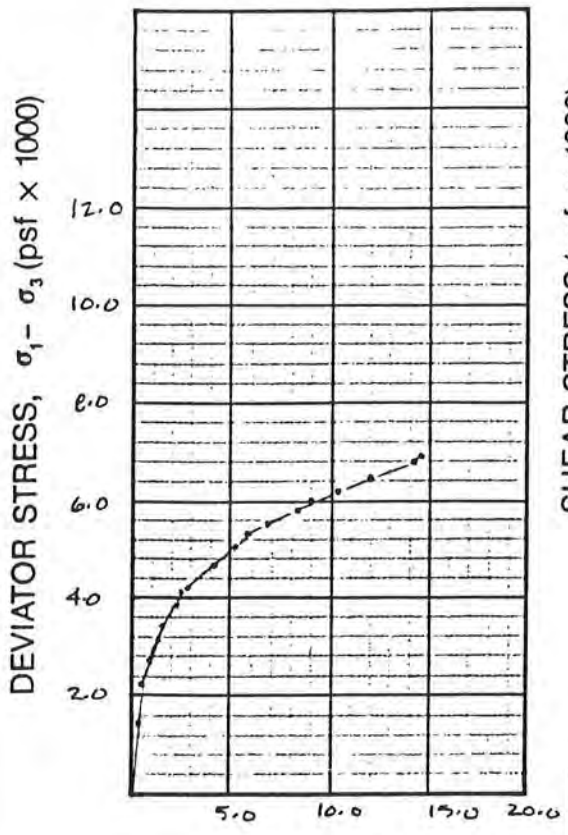
SAMPLE SOURCE
TP6
(3.0'-4.0')

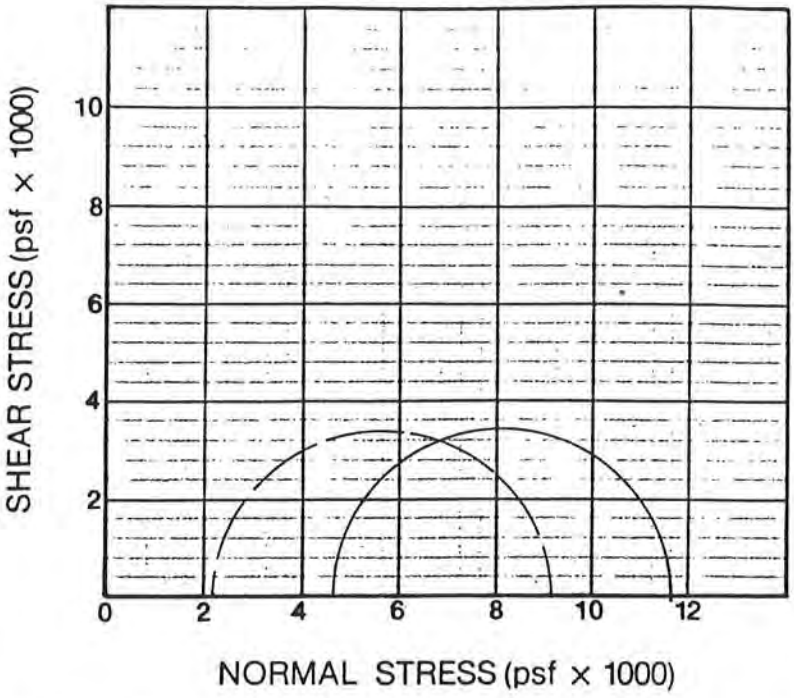
GRAIN SIZE ANALYSIS

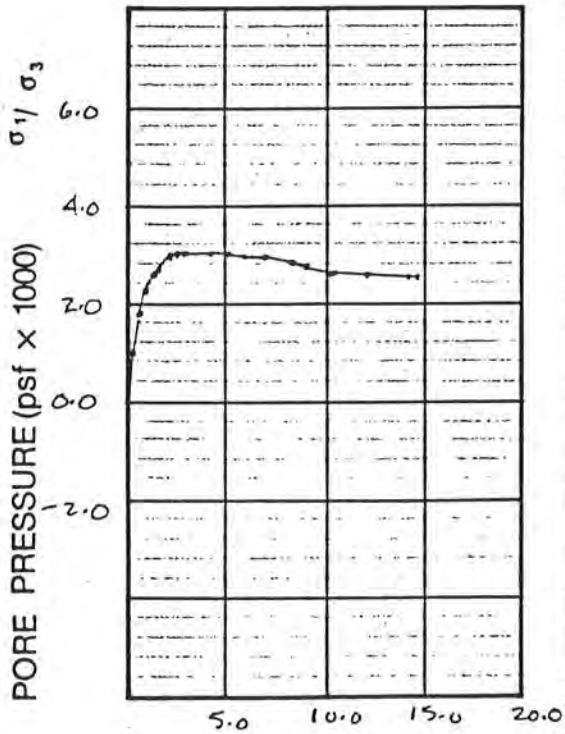
CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
GRAIN SIZE ANALYSIS

CH2MHILL

TRIAXIAL SHEAR TESTS







TEST TYPE: Controlled

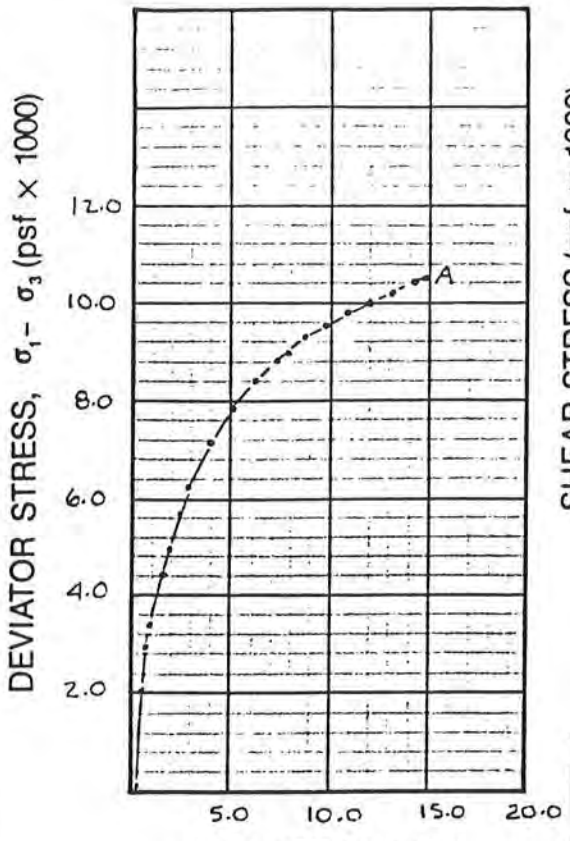
PHYSICAL CONDITIONS		TEST NO. A	B	C
INITIAL	Diameter (in.)	2.827		
	Height (in.)	4.8		
	Water Content (%)	25.0		
	Void Ratio	0.660		
	Saturation (%)	100.0		
	Dry Density (pcf)	104.2		
BEFORE	Consolidation Pressure (psf)	4752.0		
	Backpressure (psf)	12024.0		
	Water Content (%)	22.6		
	Void Ratio	0.592		
FINAL	Water Content (%)	21.8		
	Dry Density (pcf)	108.6		
	Void Ratio	0.597		
	Saturation (%)	100.0		
FAILURE	σ_1 Major Principal Stress (psf)	23654.5		
	σ_3 Minor Principal Stress (psf)	16776.0		
	Pore Pressure (psf)	2505.6		
	Axial Strain at Failure (%)	14.4 %		
	Time to Failure (min.)	214.2		

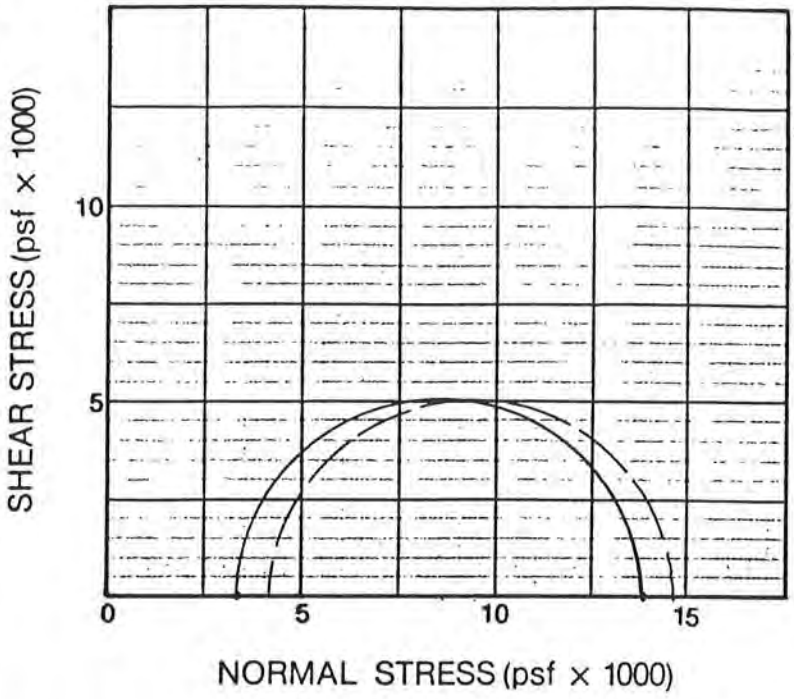
Sample Source: B2 ST7

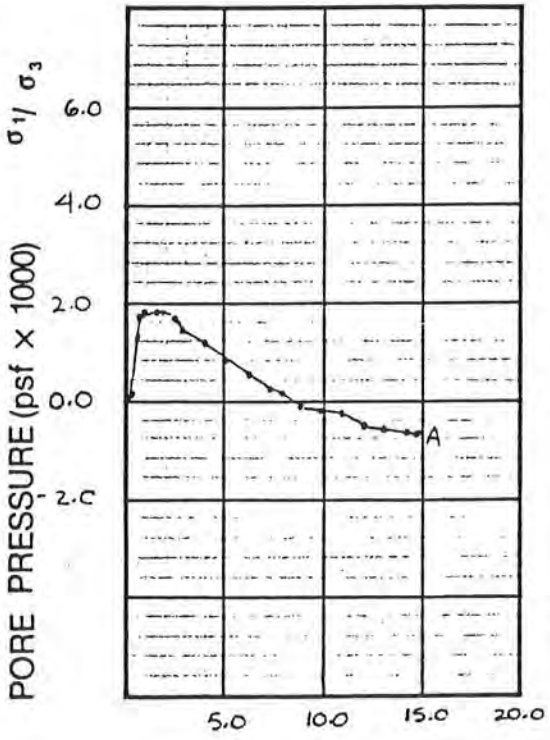
Classification: (CL) G_s 2.77

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
TRIAXIAL COMPRESSION TEST

CH2MHILL







TEST TYPE: Controlled

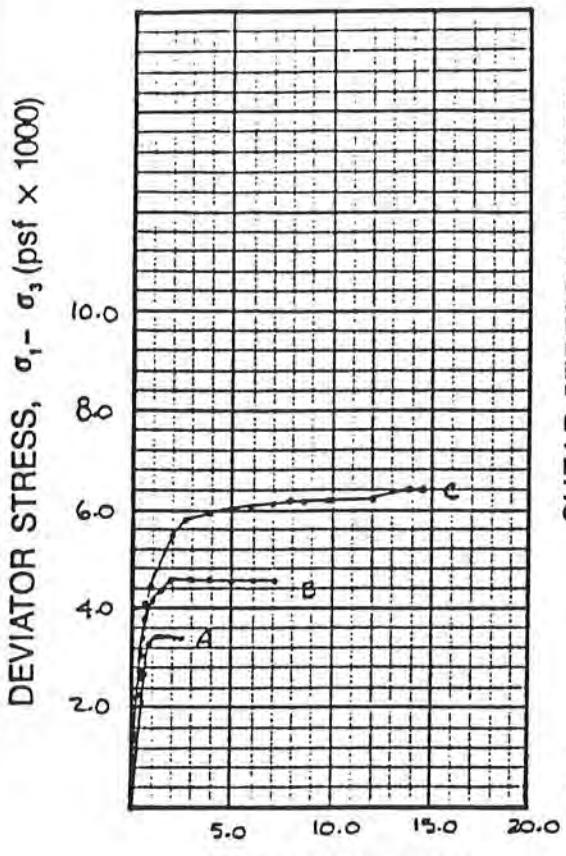
PHYSICAL CONDITIONS		TEST NO. A	B	C
INITIAL	Diameter (in.)	2.87		
	Height (in.)	5.94		
	Water Content (%)	18.48		
	Void Ratio	0.516		
	Saturation (%)	99.2		
	Dry Density (pcf)	114.1		
BEFORE	Consolidation Pressure (psf)	3384.0		
	Backpressure (psf)	126437		
	Water Content (%)	17.7		
	Void Ratio	0.493		
FINAL	Water Content (%)	17.31		
	Dry Density (pcf)	115.8		
	Void Ratio	0.493		
	Saturation (%)	99.1		
FAILURE	σ_1 Major Principal Stress (psf)	26910.2		
	σ_3 Minor Principal Stress (psf)	16027.2		
	Pore Pressure (psf)	-777.6		
	Axial Strain at Failure (%)	14.7		
	Time to Failure (min.)	136.7		

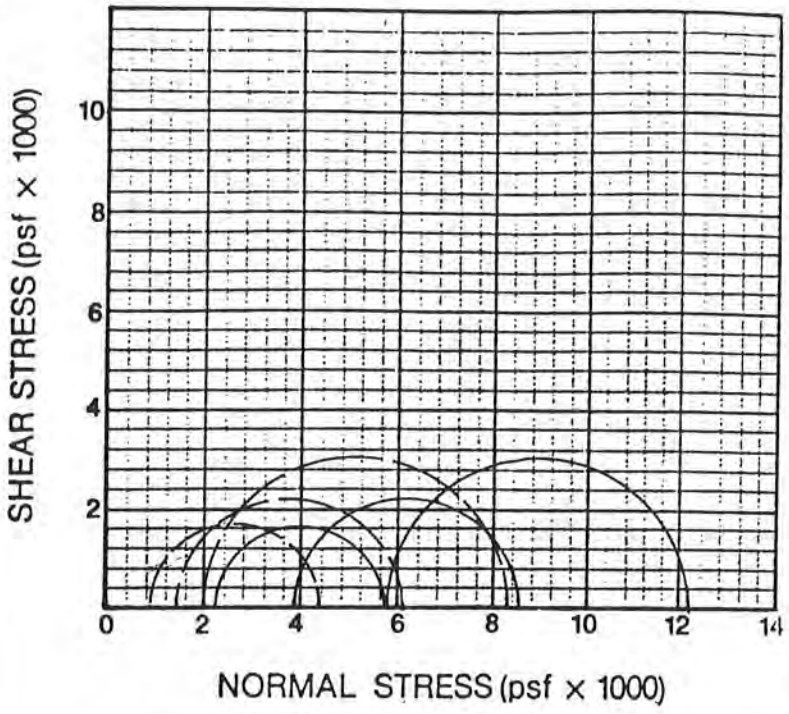
Sample Source: B2 ST7

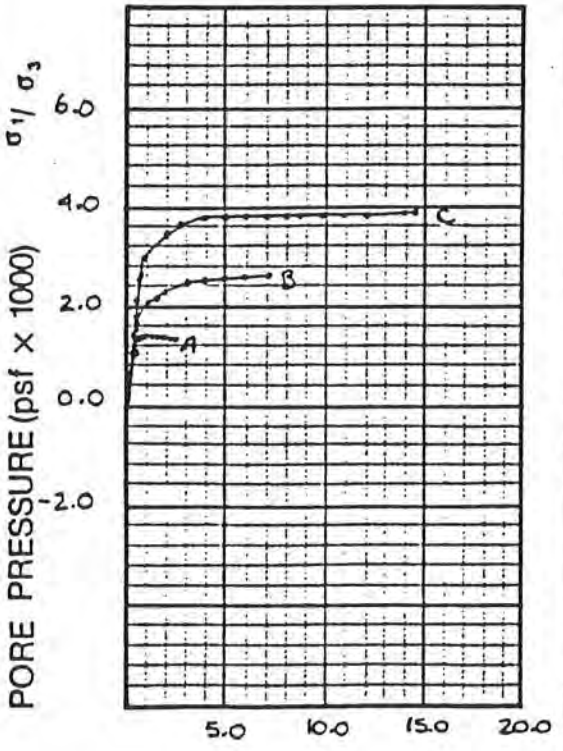
Classification: (CL) G_s 2.77

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
TRIAXIAL COMPRESSION TEST

CH2MHILL







TEST TYPE: Controlled

PHYSICAL CONDITIONS		TEST NO. A	TEST NO. B	TEST NO. C
INITIAL	Diameter (in.)	2.884	2.92	3.005
	Height (in.)	6.10	6.00	5.66
	Water Content (%)	32.0	30.9	29.4
	Void Ratio	0.826	0.840	0.839
	Saturation (%)	100.0	97.4	92.9
	Dry Density (pcf)	90.6	89.9	90.0
BEFORE	Consolidation Pressure (psf)	2203.2	3888.0	5760.0
	Backpressure (psf)	11289.6	11318.4	11520.0
	Water Content (%)	30.9	29.4	27.1
	Void Ratio	0.798	0.801	0.778
FINAL	Water Content (%)	30.9	29.4	27.1
	Dry Density (pcf)	92.0	91.9	93.0
	Void Ratio	0.798	0.801	0.778
	Saturation (%)	100.0	97.4	92.4
FAILURE	σ_1 Major Principal Stress (psf)	16976.5	19801.6	23695.7
	σ_3 Minor Principal Stress (psf)	13492.8	15206.4	17280.0
	Pore Pressure (psf)	1310.4	2433.6	3931.2
	Axial Strain at Failure (%)	1.8	3.0	14.5
	Time to Failure (min.)	33.1	64.1	255.6

Sample Source: B7 ST4 @ 20.0'

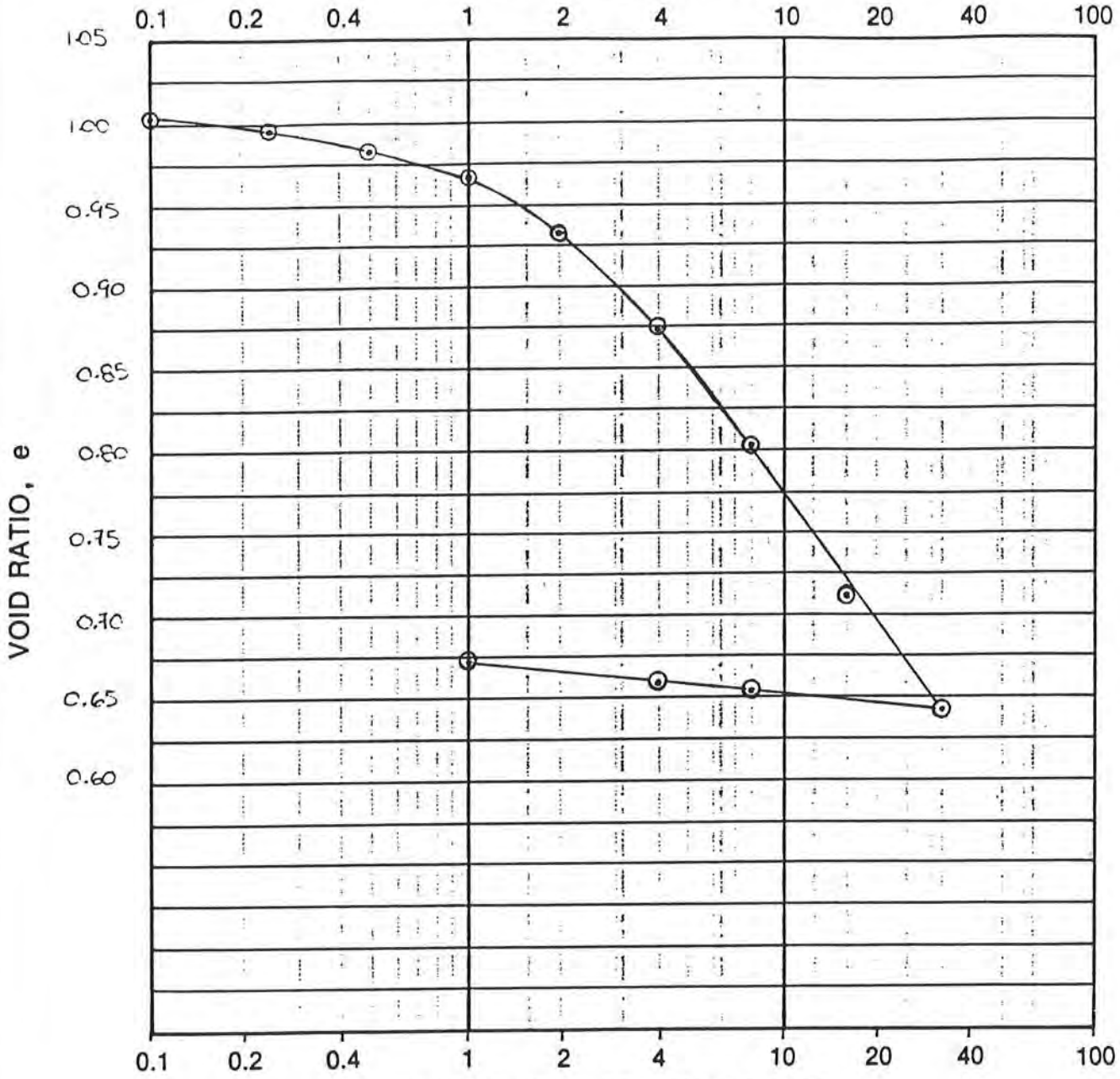
Classification: (ML) G_s 2.65

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
TRIAXIAL COMPRESSION TEST

CH2MHILL

CONSOLIDATION CURVES

Reference ASTM D 2435



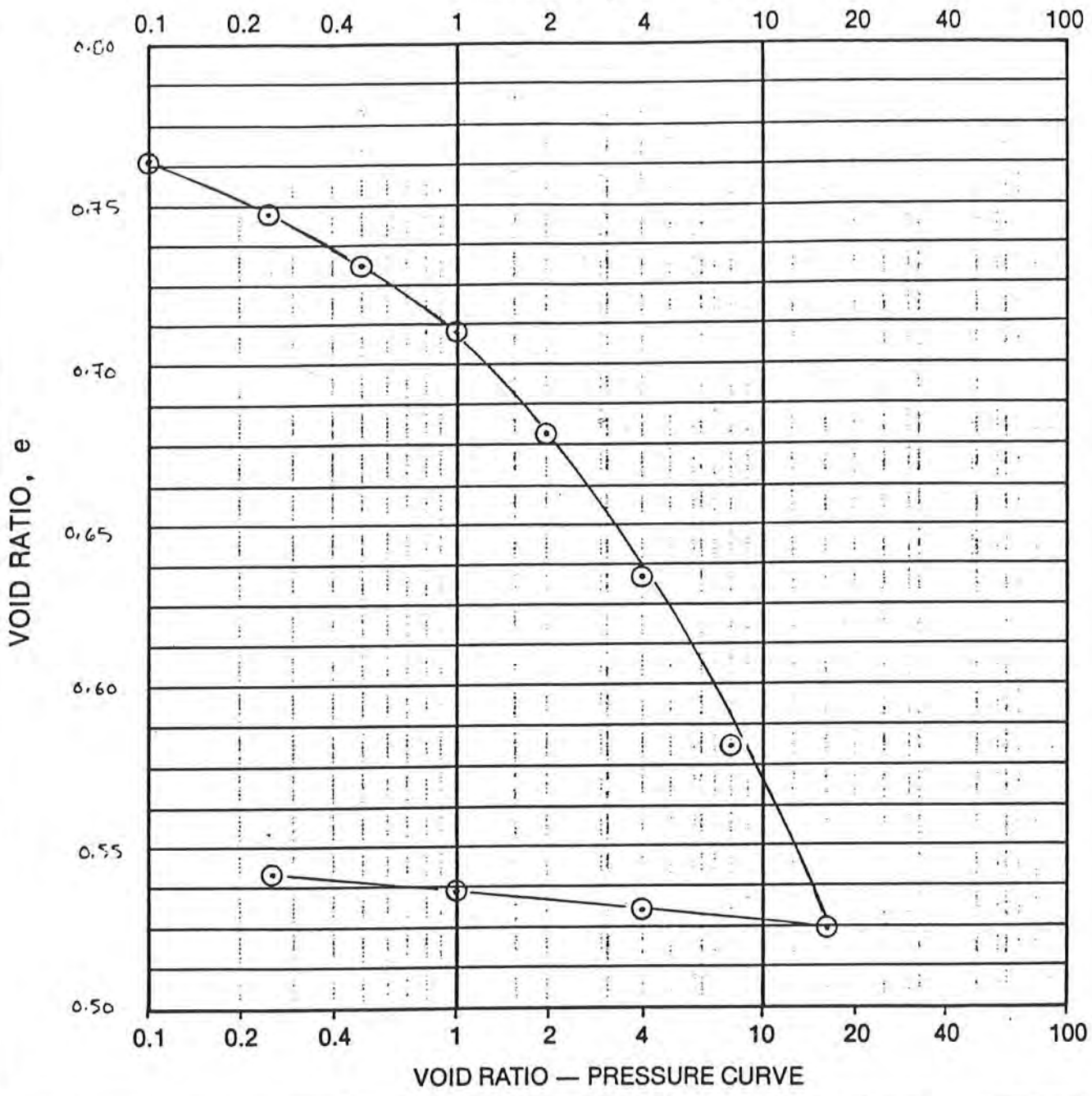
VOID RATIO — PRESSURE CURVE

Type of Specimen	SHELBY		Condition		Before Test		After Test	
Diameter (in.) 2.42	Height (in.) 0.810		Water Content	w_o	34.3 %	w_f	24.1 %	
Overburden Press., P_o	psf		Void Ratio	e_o	1.0528	e_f	0.6739	
Preconsol. Press., P_c	psf		Saturation	S_o	90.2 %	S_f	99.1 %	
Compression Index, C_c			Dry Density	γ_d	84.2 pcf	γ_d	103.3 pcf	
LL 28	PL 22	PI 6		G_s 2.77				
Classification (ML)			Source B10 ST7					

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
CONSOLIDATION CURVES

CH2MHILL

Reference ASTM D 2435

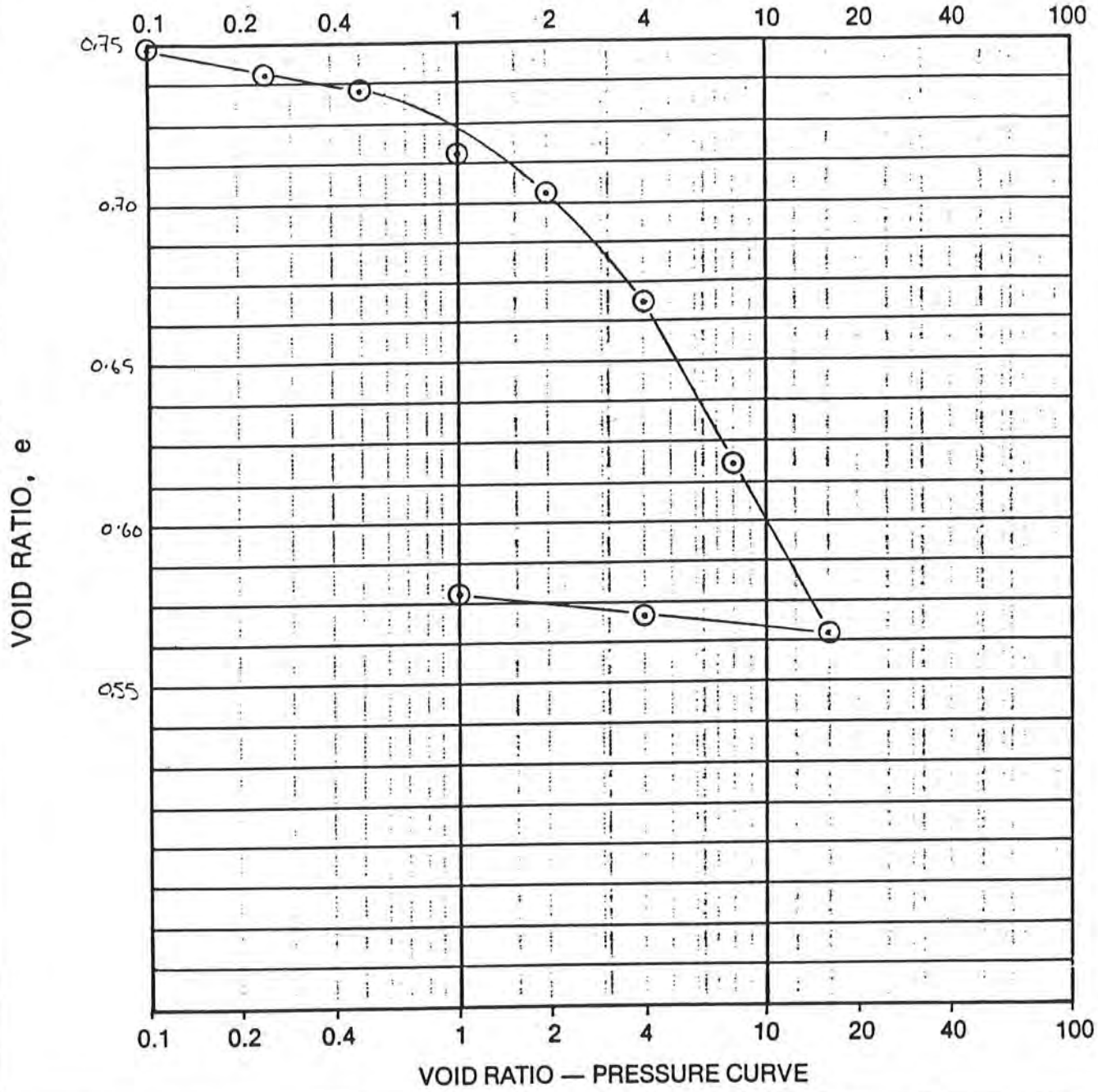


Type of Specimen	SHELBY	Condition		Before Test		After Test	
Diameter (in.) 2.42	Height (in.) 0.810	Water Content	w_o	28.1 %	w_f	20.5 %	
Overburden Press., P_o psf		Void Ratio	e_o	0.8201	e_f	0.5417	
Preconsol. Press., P_c psf		Saturation	S_o	90.5 %	S_f	99.9 %	
Compression Index, C_c		Dry Density	γ_d	90.6 pcf	γ_d	106.9 pcf	
LL 44	PL 32	PI 17		G_s 2.64			
Classification (ML)		Source B10 ST2					

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
CONSOLIDATION CURVES

CH2M HILL

Reference: ASTM D 2435



VOID RATIO — PRESSURE CURVE

Type of Specimen	SHELBY	Condition		Before Test		After Test	
Diameter (in.) 2.42	Height (in.) 0.810	Water Content	w_o	28.0 %	w_f	23.5 %	
Overburden Press., P_o	psf	Void Ratio	e_o	0.7813	e_f	0.5776	
Preconsol. Press., P_c	psf	Saturation	S_o	95.0 %	S_f	100.0 %	
Compression Index, C_c		Dry Density	γ_d	92.9 pcf	γ_d	104.9 pcf	
LL 31	PL 21	PI 10		G_s 2.65			
Classification (ML)		Source B7 ST4					

CITY OF BELLINGHAM
WASTEWATER TREATMENT PLANT
CONSOLIDATION CURVES

CH2M HILL

ENVIRONMENTAL SITE ASSESSMENT:
PHASE II

206 AND 208 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON

For:

Bellingham Stevedoring Company
Harbor Center
1801 Roeder Avenue, Suite 156
Bellingham, WA 98225

By:

W.D. PURNELL & ASSOCIATES, INC.
Consulting Engineers • Geologists
2138 Humboldt Street
Bellingham, WA 98227
(206) 676-9589

January 5, 1994

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Not Included

Analytical Results (CCI Laboratories, Inc.) ← w/ Report

W.D. PURNELL
AND ASSOCIATES, INC.

January 5, 1994

Bellingham Stevedoring Company
Harbor Center
1801 Roeder Avenue, Suite 156
Bellingham, WA 98225

Attn: Irven Chunyk

Re: **Report**
Environmental Site Assessment: Limited Phase II
Bellingham Stevedoring Company
206 & 208 McKenzie Avenue
Bellingham, WA 98225

Dear Mr. Chunyk:

We herein present the results of a limited Phase II Environmental Site Assessment at the above referenced property. Specifically, this report addresses the concentration of hydrocarbon products in soil of an open pit on the project site from which two underground storage tanks (USTs) have been removed. It is our understanding that the subject property was the site of a chain manufacturing company, and that the (USTs) contained cutting oil used in the manufacturing process.

PURPOSE AND SCOPE

The purpose of this limited Phase II Environmental Site Assessment is to investigate the condition of soil within the UST pit in regard to hydrocarbon concentration.

The scope of our services included:

1. Qualitatively screen soil samples from within the UST pit for hydrocarbon concentration using a MicroTIP model HL-2000 photo-ionization detector (PID), or other appropriate field technique. Based on field screening, soil samples were collected for quantitative laboratory analysis.

2. Arrange for analytical services by CCI Laboratories in Everett, Washington.

3. Preparation of this report.

P.O. Box 5346, 2138 Humboldt, Bellingham, WA 98227 Phone: (206) 676-9589 Fax: (206) 676-4625

SITE ACTIVITIES

The site was visited by a representative of W.D. Purnell & Associates on November 5, 1993 for the purpose of conducting a visual site assessment.

A representative of W.D. Purnell & Associates returned to the project site on November 29, 1993 to collect soil samples from the UST pit for analyses. Five test holes were dug by hand to a depth of approximately six inches. A soil sample was collected from each test hole. Three samples were collected from the side walls of the pit, and two samples were collected from the bottom of the pit.

SITE CONDITIONS

At the time of our initial site visit on November 5, 1993, the two USTs had been removed from the UST pit. The USTs had been cleaned and were stored on-site awaiting disposal. Both USTs were estimated to be approximately 10,000 gallons in size.

The UST pit is located adjacent to an abandoned building on the project site. The pit is approximately 50' long x 20' wide x 10' deep. The pit had been excavated in fill material that includes clay, sandy gravel, bricks and metal debris. Part of the bottom of the pit was covered with standing water. It is not known at this time if the water is simply rainwater, or is part of a perched shallow aquifer. A slight hydrocarbon sheen was observed on the water.

Visual evidence of hydrocarbon contamination was observed in all test holes.

LABORATORY RESULTS

Laboratory analyses were performed by CCI Laboratories, Inc. in Everett, Washington, using methodology approved by the Washington State Department of Ecology (WDOE).

The analytical protocol, as recommended by the WDOE, is as follows:

1) Screen samples using the WTPH-HCID analytical methodology. No further analysis is required if (1) the concentration of gasoline range hydrocarbons is less than 20 parts-per-million (ppm) in soil or 0.20 ppm in water, (2) diesel range hydrocarbons are less than 50 ppm in soil or 0.50 ppm in water, (3) and heavy oil range hydrocarbons are less than 100 ppm in soil or 1 ppm in water.

2) Should any sample exceed the limits described above, the WDOE recommends further analysis to determine precise concentrations, using the WTPH-G methodology for gasoline range hydrocarbons, the WTPH-D methodology for diesel range hydrocarbons, and the WTPH-418.1 methodology for heavy oil range hydrocarbons. The WDOE also recommends that soil or water contaminated with gasoline range hydrocarbons be analyzed for lead and BTEX (Benzene, Toluene, Ethyl Benzene and Xylene).

The results of WTPH-HCID analyses on soil from the pit is presented in Table 1. The cleanup standard is as presented in the Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340-740 WAC).

TABLE 1
Analytical Results (WTPH-HCID)
Sampling Date: 11/29/93

	Gasoline Range (ppm)	Diesel Range (ppm)	Heavy Oil Range (ppm)
Cleanup Standard	100	200	200
Sample # (Location)			
#3 (east sidewall)	< 200	> 500	> 1000

Sample #3 was selected for (HCID) analysis because of visual evidence of hydrocarbons in the sample. Quantification of hydrocarbon concentration was determined using the WTPH-418.1 analytical methodology. The results of these analyses are presented in Table 2. The cleanup standard is as presented in the MTCA.

TABLE 2
Analytical Results (WTPH-418.1)
Sampling Date : 11/29/93

Sample (Location)	Total Petroleum Hydrocarbons (ppm)
Clean-up Standard	**200**
#1 (south sidewall)	120
#2 (west sidewall)	590
#3 (east sidewall)	12,000
#4 (south floor)	8,100
#5 (north floor)	2,600

Analytical results tabulated in Table 1 and Table 2 indicate that heavy oil and diesel fuel (or heating oil) are present in soils in the UST pit on the subject property at concentrations above MTCA clean-up standards.

In the past, polychlorinated biphenols (PCBs) were sometimes used as a constituent of cutting oil. For this reason PCB analyses were conducted, using the EPA 8080 analytical methodology. To evaluate potential metal contamination of the soil, a lead analysis was also conducted, using the EPA-7420 methodology. Sample #3 was chosen for these analyses because this sample had the highest hydrocarbon concentration. The results of the PCB and lead analyses are shown in Table 3.

TABLE 3
Analytical Results (EPA-8080 and EPA-7420)
Sampling Date : 11/29/93

Sample # (Location)	PCB (ppm)	Lead (ppm)
Clean-up Standard	1	250
#3 (sidewall)	ND(<1)	120

Analytical results indicate that PCBs are not present in Sample #3 at a concentration above the 1 ppm detection limit. The clean-up standard for PCBs as defined in the MTCA is 1 ppm. Analytical results indicate that lead (Pb) is present at a concentration less than the MTCA cleanup level in Sample #3. The clean-up standard as defined in the MTCA is 250 ppm for lead.

CONCLUSIONS

We conclude that petroleum hydrocarbon products are present at high concentration in soil in the UST excavation area on the subject property. The concentration of hydrocarbon products is above MTCA cleanup standards. The WTPH-HCID analysis revealed that diesel fuel may also be present in soil of the pit. PCBs were not detected, and lead was detected at a concentration below MTCA clean-up levels. The evaluation of potential ground water contamination is beyond the scope of this study.

The WTPH-HCID analysis indicates that Sample #3 contains diesel oil or heating oil at a concentration above MTCA cleanup levels. The presence of diesel oil or heating oil does not affect your remediation or disposal options, but is of concern because the source is not known. We do not know if the USTs contained diesel oil or heating oil at one time, or if other leaking underground storage tanks may exist on the subject property.

The PCB analysis indicates that PCBs are not present at detectable levels in Sample #3. The lead analysis indicates that lead is present at a concentration above background levels, but below MTCA cleanup levels.

WDOE REPORTING REQUIREMENTS

Under WAC 173-360 "Underground Storage Tank Regulations", you are required to report a confirmed release of hydrocarbon products to the WDOE within 24 hours of confirmation. At your request, W.D. Purnell & Associates, Inc. have reported the release. Under WAC 173-340 "The Model Toxics Control Act Regulation", you are required to submit a "status report" to the WDOE within twenty days of release confirmation. The purpose of the status report is to identify the types, amounts, and locations of hazardous substances. The status report can be verbal. Under WAC 173-340 "The Model Toxics Control Act Regulation", you are required to submit a "site characterization report" within ninety days after release confirmation. The site characterization report is a detailed status report, and must be in written form.

Under WAC 173-340 "The Model Toxics Control Act Regulation", if you choose to cleanup the site on your own, an independent remedial action report must be submitted to the WDOE when cleanup is complete. If independent remedial action occurs within ninety days after release confirmation, the site will generally not be listed on a WDOE hazardous sites list.

RECOMMENDATIONS

We recommend that all hydrocarbon contaminated soil be excavated from the UST pit. There are several remediation or disposal options for soil contaminated with hydrocarbon products. For soil contaminated with heavy oil, the most cost effective method, in our opinion, is disposal of the soil at a licensed landfill or thermal reduction facility. Determining the extent of hydrocarbon contamination within the UST pit is beyond the scope of this study. Contaminated soil should be excavated until laboratory results show that hydrocarbon concentration within soil remaining in the UST pit is below the MTCA cleanup standards.

Based on the PCB analysis for Sample #3, the UST pit does not appear to contain PCBs at detectable concentrations. However, the laboratory noted that the high concentration of hydrocarbons in Sample #3 necessitated a complex cleanup of the sample prior to PCB analysis. We recommend that additional samples be analyzed for PCBs, to insure that the

soil does not contain PCBs above MTCA cleanup levels. Should you decide to dispose of the soil at a licensed landfill or thermal reduction facility, additional PCB analyses will probably be required prior to acceptance.

Based on the lead analysis for Sample #3, the UST pit does not appear to contain lead at a concentration above MTCA cleanup levels. However, because the sample does contain lead above background levels, we recommend that soil of the UST pit be analyzed for the EPA Priority Pollutant Metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thorium, and zinc). Should you decide to dispose of the soil at a licensed landfill or thermal reduction facility, EPA Priority Pollutant Metals analyses will probably be required prior to acceptance.

We recommend that a study be conducted to determine the source of diesel oil or heating oil detected in Sample #3. We recommend that additional samples be collected from the UST pit and analyzed specifically for diesel oil or heating oil using the WTPH-D methodology. If results confirm that diesel oil or heating oil is present in the UST pit, we recommend that a magnetic survey be conducted in the area of the UST pit to determine if additional USTs may be present. If additional USTs are found, the USTs should be removed and a site assessment should be conducted per WDOE regulations.

Evaluation of potential ground water contamination is beyond the scope of this study. Additional information in regard to potential ground water contamination will be made available when hydrocarbon contaminated soil is excavated from the UST pit. The installation of ground water monitoring wells may be recommended at that time.

At your request, W.D. Purnell & Associates is currently preparing a proposal to carry out our recommendations.

INDEMNIFICATION AND LIMITATIONS

At the request of Bellingham Stevedoring Company, **W.D. Purnell & Associates, Inc.** conducted a limited Phase II Environmental Site Assessment at Bellingham Stevedoring Company at 206 & 208 McKenzie Avenue in Bellingham, Washington (the subject property). The purpose of the investigation was to evaluate potential hydrocarbon contamination within a UST pit on the subject property. No other part of the subject property was investigated during the course of this study.

As is now common in the industry, our general liability insurance carriers specifically exclude coverage for claims or damages related to the release of pollutants. Therefore, as a condition of our services, it is understood that to the fullest extent permitted by law, Bellingham Stevedoring Company, agrees to defend, indemnify and hold harmless **W.D. Purnell & Associates, Inc.**, its owners, employees, subcontractors and agents, from any (past, present, or future) pollution-related claims or damages at the site, including potential claims from third parties that may name **W.D. Purnell & Associates, Inc.**, as a claimant.

The analytical conclusions and recommendations contained in this report are based on site conditions observed in the UST pit at the time of our investigation and make no assumptions that the UST pit is representative of the subsurface conditions throughout the site. Should different subsurface conditions from those encountered during our explorations be observed or appear to be present, **W.D. Purnell & Associates, Inc.** should be advised promptly so that we may review these conditions and reconsider our recommendations and conclusions where necessary.

January 5, 1994
Bellingham Stevedoring Company
Evironmental Site Assessment: Limited Phase II

We appreciate the opportunity to be of service to you. Should you have any questions concerning this Environmental Site Assessment: Limited Phase II, please contact our office.

Sincerely yours,

W. D. PURNELL & ASSOCIATES, INC.,

Willard D. Purnell, P.E.G.
Professional Engineering Geologist

Jon M. Einarsen, M.S.
Geologist

Kenneth R. Koenig
Geologist

KK:mw
M:93121.ESA

December 16, 1994

Bellingham Stevedoring Company
Harbor Center, Suite 156
1801 Roeder Avenue
Bellingham, WA 98225

Attn: Mr. Ted Mischaikow

Re: Final Report
On-Site Thermal Desorption of Contaminated Soil
206 & 208 McKenzie Avenue
Bellingham, Washington

Dear Mr. Mischaikow:

We are pleased to present the analytical results for on-site thermal desorption conducted by Soaring Eagle Soils, Inc. at the above referenced property. The soil that was treated had been excavated from the sidewalls and bottom of an underground storage tank (UST) pit on the subject property. The thermal desorption was conducted to reduce the petroleum hydrocarbon concentrations to below the Washington Administrative Code (WAC) Chapter 173-340 cleanup standard for total petroleum hydrocarbons (TPH) of 200 mg/kg.

SCOPE OF SERVICES

The scope of services was defined in our Confirmation Proposal, dated September 21, 1994, and included the following items:

- Collect a soil sample from the first five cubic yards of treated soil, and collect one sample for every hundred cubic yard batch of treated soil thereafter, to confirm that treated soil meets WAC 173-340 standards. Arrange for 24-hour turn-around for analyses of soil samples using laboratory techniques certified by the Washington State Department of Ecology.

- Collect untreated soil samples of each batch in conjunction with treated samples. The untreated samples were to be analyzed if cleanup levels were not attained following treatment.

- Prepare a written summary report regarding site activities and the soil treatment results.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

SUMMARY OF RESULTS

Soil treatment was begun on October 4, 1994. Samples were collected on October 4 and 5 and on November 14, 17, 23, and 25, 1994. The samples were analyzed for total petroleum hydrocarbons using the WTPH-418.1 methodology by CCI Laboratories of Everett, Washington and Avocet Environmental Testing of Bellingham, Washington. The analytical results are included in the Appendix. The analytical results are summarized in Table 1.

Table 1

Date	Sample Number	Result (mg/kg)	Comments
10-4-94	941004-1	650	Treated soil. Failed
10-4-94	941004-2	700	Treated soil. Failed
10-4-94	941004-3	3,200	Untreated soil.
10-5-94	941005-1	16,000	Untreated soil
10-5-94	941005-2	240	Treated soil. Pass, >95% contaminant reduction
11-14-94	941114-1	3,000	Untreated soil.
11-14-94	941114-2	40	Treated soil. Pass
11-17-94	941117-2	1,000	Treated soil. Fail
11-23-94	112394-1	1,000	Treated soil. Fail. Second treatment.
11-25-94	#1	2,000	Untreated soil from bottom of excavation.
11-25-94	#2	800	Untreated soil. Previously treated two times.
11-25-94	#3	<100	Treated soil. Pass. Third treatment.

Soil treatment began on October 4, 1994, and three soil samples were collected. Two of the samples were of treated soil and the third sample was of untreated soil. Both treated soil samples failed to achieve the WAC 173-340 cleanup level. The untreated soil sample was analyzed to determine if contamination levels in the untreated soil was similar to the levels that Soaring Eagle, Inc. had proposed to treat. The TPH concentration in the soil was similar to our previous estimates for the untreated soil on the site.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

Two soil samples were collected on October 5, 1994. Soaring Eagle, Inc. had made adjustments to their treatment process based on the October 4, 1994 results. One sample was of untreated soil and one sample was of treated soil. The treated soil had a TPH concentration of 240 mg/kg, slightly above the WAC 173-340 standard of 200 mg/kg. Although this TPH result is slightly above the standard, the untreated soil had an unusually high TPH concentration of 16,000 mg/kg, considerably above the more typical TPH levels of 3,200 mg/kg our previous sampling of the untreated soil indicated. These two analyses indicated that soil treatment was 98.5% effective, and that typical concentrations of 3,200 mg/kg would be cleaned up to WAC 173-340 standard. We therefore concluded that this batch of soil had been effectively treated.

Because higher operating temperatures needed to be maintained, Soaring Eagle, Inc. moved their equipment off site in order to make the necessary equipment changes. Soil treatment began again on November 14, 1994. One untreated soil sample and one treated soil sample were collected on November 14, 1994. The analyses of the these two samples indicated that soil was being effectively treated and cleaned up to WAC 173-340 standards, and that this batch of soil needed no further treatment.

Two soil samples were collected on November 17, 1994. One sample was of treated soil, and the other sample was of untreated soil. Only the treated soil sample was analyzed. The results of this analysis indicated that the soil had not been cleaned up to WAC 173-340 standards, and therefore this batch of soil needed additional treatment.

One treated soil sample was collected on November 23, 1994. The analysis of this soil sample indicated that the soil had not been cleaned up to WAC 173-340 standards, and therefore a third soil treatment of this soil batch was required.

Three soil samples were collected on November 25, 1994. One sample was of soil that had previously been treated two times, and one sample was of soil that went through a third treatment. The results of the analyses indicated that the soil from this batch had been cleaned up to WAC 173-340 standards, and therefore no further soil treatment was needed.

The third soil sample collected on November 25, 1994 (Sample #1) was of soil from the bottom of the excavation. Soaring Eagle, Inc. believed that untreated soil contamination was higher than the 3,200 mg/kg that our previous sampling had indicated. The result of this analysis indicated that soil in the bottom of the excavation was lower than the average contamination we had estimated for the untreated soil stockpile.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

CONCLUSIONS

Based on the analytical results from both the treated and untreated soil samples, we believe that the soil stockpile at 206 and 208 McKenzie Street has been treated to the WAC 173-340 standard for TPH. It is our understanding that Bellingham Stevedoring plans to use the treated soil to backfill the UST pit on the property. Because contaminated soil remains in the sidewalls and bottom of the UST pit, we recommend that the pit is lined with an impermeable liner in order to prevent cross contamination of the cleaned up soil.

We appreciate the opportunity to provide our services. Should you have any questions or require further information, please contact our office at 676-9589.

Sincerely yours,

W.D. PURNELL & ASSOCIATES, INC.

Willard D. Purnell, P.E.G.
Professional Engineering Geologist

Jon Einarsen, Ph.D.
Geologist

Dan McShane, M.S.
Geologist

DM:ap

Attachments:

M:\93121\C.DIR\FnlRpt

Laboratories
Serving the Environmental, Aerospace and Defense Industries

OCT 1 1 1994
W. Purnell & Assoc. Inc

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 1
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-1 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	650	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: CJC

Laboratories

Serving the Environmental, Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 2
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-2 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	700	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

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APPROVED BY: _____

Laboratories

Serving the Environmental, Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 3
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-3 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	3200	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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APPROVED BY: CRA

3229 Pine St. Everett, WA 98201 206 258-4548 FAX 206 259-6289 Seattle 206 292-9059

3rd Party Billing!

CCI Laboratories
3229 Pine
Everett, WA 98201
Phone (206) 258-4548
(206) 292-9059 Seattle
(206) 259-6289 FAX

Bellingham Stevedoring
1801 Roeder Avenue
Suite 156
Bellingham, WA 98225
Attn: [redacted]
From Chuck

Chain of Custody / Laboratory Analysis Request

Date _____ Page _____ Of _____

PROJECT Bellingham Stevedoring # 9312 C

PROJECT MANAGER J. Fraser PH# 676-9589

REPORT/INVOICE MAILING ADDRESS W.D. Purnell & Associates
2158 Humboldt St.
Bellingham, WA

SAMPLER'S NAME Dan McShane PH# 676-9589

SAMPLE I.D.	DATE	TIME	TYPE	LAB #	WTPH-G	WTPH-D ☐ 8015 MODIFIED ☐	WPTH-418.1 24-hour rush	BTEX	WTPH-HCID	EPA 8020 ☐ 602 ☐	EPA 8010 ☐ 601 ☐	EPA 8240 ☐ 624 ☐ 8260 ☐	EPA 8270 ☐ 625 ☐	EPA 8080 ☐ 608 ☐ PCB only ☐ Pest only ☐	Metals Priority Pollutant ☐ RCRA ☐ TAL ☐	Metals Other (Specify)	TCLP Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herb ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. ~~941004-1~~ 941004-1	10-4-94		soil				X													
2. 941004-2	10-4-94						X													
3. 941004-3	10-4-94						X													
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

SPECIAL INSTRUCTIONS Need #1 and #2 results as soon as possible

POSSIBLE SAMPLE HAZARDS Oil, diesel

SIGNATURES (Name, Company, Date, and Time):

1. Relinquished By: [signature] 10-4-94
   Received By: [signature] CCI 10/4/94 3:30
2. Relinquished By: _____
   Received By: _____
3. Relinquished By: _____
   Received By: _____
4. Relinquished By: _____
   Received By: _____

AVOCET Environmental Testing
[illegible]00 North State Street
[illegible]ingham, WA 98225
(206) 734-9033

To: Purnell & Assoc.

AVOCET
ENVIRONMENTAL TESTING

Client	Purnell - Bellingham Stevedoring Company
Project	Purnell Job #94053
Chain of Custody	C4719
Contact Name	Irvin Chaynk or Dan McShane
Sample Date	10/5/94
Date Received	10/5/94
Date Extracted	10/6/94
Date Analyzed	10/6/94
Date Reported	10/11/94
Test Performed	WTPH - 418.1 HEAVY PETROLEUM OILS
Method	WTPH
Anaylst	A. Cardwell

Sample Source	Log Number	Sample Result	Units	Reporting Limit	% Solids
Method Blank	n/a	< 100	mg/kg	100	n/a
941005-1	5708424	16,000	mg/Kg	100	90
941005-2	5708425	240	mg/Kg	100	84

All results reported on a dry weight basis.

Copy sent to WD Purnell - Dan McShane.

JA

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04719

Avocet Environmental Testi
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-0061
TOLL FREE 800/442-TEST (8378)

Attn: Irvin Chmyk (Purnell)

CLIENT Bellingham Stevedoring Company

DAY PHONE

PO #

ADDRESS Harbo-Center 1801 Roeder Avenue Suite 156

FAX

CONTACT NAME Dan McShane 676-95

STATE, ZIP Bellingham, WA 98225

SYSTEM ID #

CIRCLE GROUP A B

COLLECTOR OF SAMPLE

E OR LOCATION OF SAMPLE IFFERENT FROM ABOVE)

JOB# 94053

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
41005-1	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE 10-5-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	570 8424
41005-2	↓	Glass ☒ Plastic ☐ VOA ☐	DATE TIME 10-5-94	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	570 8425
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

ARKS:

#1 may be high 3,000 ppm Send copy to Purnell – Dan McShane
#2 should be lower hopefully <200, but could be 3500

RELEASING SIGNATURE Dan McShane DATE 10-5-94 TIME 16:30

RECEIVING DATE TIME

RELEASING DATE TIME

RECEIVING DATE TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Irve Chayk
Chain of Custody	C4656
Date Sampled	11/14/94
Date Received	11/14/94
Date Extracted	11/15/94
Date Analyzed	11/15/94
Date Reported	11/17/94
Test Requested	WTPH - 418.1 Heavy Oil Petrolium Oils
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/kg	100
941114-1	5709479	3,000	mg/kg	200
941114-2	5709480	40	mg/kg	100

JoAnn Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04656

Avocet Environmental Test
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-00
TOLL FREE 800/442-TEST (8378)

Attn: Irva Chuyk

CLIENT Bellingham Stevedoring Co
Harbor Center
ADDRESS 801 Roeder Avenue Suite 156
CITY, STATE, ZIP Bellingham, WA

DAY PHONE
FAX
SYSTEM ID #
CIRCLE GROUP A B

PO #
CONTACT NAME
COLLECTOR OF SAMPLE
SOURCE #

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
941114-1	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE 11-14-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	
941114-2	↓	Glass ☒ Plastic ☐ VOA ☐	DATE 11-14-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

REMARKS:
941114-1 may be high ≈ 3,000 ppm Call with Dan McShane with results asap

RELEASING SIGNATURE	DATE	TIME	RELEASING SIGNATURE	DATE	TIME
			Dan McShane	11-14-94	
RECEIVING SIGNATURE	DATE	TIME	RECEIVING SIGNATURE	DATE	TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

W.D. Purnell & Assoc. Inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Irve Chayk
Chain of Custody	C4756
Date Sampled	11/17/94
Date Received	11/17/94
Date Extracted	11/18/94
Date Analyzed	11/18/94
Date Reported	11/21/94 Updated 11/25/94
Test Requested	**WTPH - 418.1 Heavy Oil Petrolium Oils**
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	150	mg/Kg	100
941117-2	5709584	1,000	mg/Kg	100

All results reported on a dry weight basis.

copy to Dan McShane - W.D. Purnell & Associates

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04756

Avocet Environmental
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-006
TOLL FREE 800/442-TEST (8378)

CLIENT Bellingham Stevedoring Co
Harbor Center
ADDRESS 1801 Roeder Ave. Suite 156
Y, STATE, ZIP Bellingham, WA
Attn: Evan Chynk

DAY PHONE
FAX
SYSTEM ID #
CIRCLE GROUP A B

PO #
CONTACT NAME
COLLECTOR OF SAMPLE

ME OR LOCATION OF SAMPLE
DIFFERENT FROM ABOVE)

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
941117-2 11-21-94	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE TIME 11-17-94	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709584
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

MARKS:
Results by Monday Nov 21, 1994 - Results called into Dan McShane at W. D. Purnell & Associates

EASING NATURE	DATE 11-17-94	TIME	
CEIVING NATURE	DATE 11-17-94	TIME 14.45	

RELEASING SIGNATURE	DATE	TIME
RECEIVING SIGNATURE	DATE	TIME

AVOCET ENVIRONMENTAL TESTING
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

W.D. Purnell & Assoc. inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Jon Einarsen - W.D. Purnell & Associates
Chain of Custody	C2841
Date Sampled	11/23/94
Date Received	11/23/94
Date Extracted	11/23/94
Date Analyzed	11/23/94
Date Reported	11/23/94
Test Requested	WTPH - 418.1 Heavy Oil
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/Kg	100
treated sample McKenzie Street sample#112394-1	5709682	1,000	mg/Kg	100

All results reported on a dry weight basis

copy to Jon Einarsen - W.D. Purnell & Associates

JoAnn Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY C 2841

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

CLIENT BELLINGHAM STEVEDORING ~~W.D. PURNELL & ASSOC.~~
ADDRESS Harbor Center 1801 Roeder Ave., Ste 156
CITY, STATE, ZIP Bellingham, WA 98225

DAY PHONE Purnell 676-9589 Jon Einarsen
EVE. PHONE
FAX
SYSTEM ID #

PO #
CONTACT NAME Jon Einarsen
COLLECTOR OF SAMPLE Purnell / Jon Einarsen
CLASS: A B

OTHER LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

LAB USE ONLY

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
treated sample ENZIE STREET SAMPLE # 112394-1	SOIL	Glass ☒ Plastic ☐ VOA ☐	DATE 11-23-94 TIME 0920	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709682
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

SIGNATURE Jon Einarsen DATE 11-23-94 TIME 0920
SIGNATURE DATE TIME

RELEASING SIGNATURE DATE TIME
RECEIVING DATE TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

RECEIVED
DEC 2 1994
W.D. Purnell & Assoc. Inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Jon Einarsen - W.D. Purnell & Associates
Chain of Custody	C2841
Date Sampled	11/25/94
Date Received	11/25/94
Date Extracted	11/25/94
Date Analyzed	11/25/94
Date Reported	11/25/94
Test Requested	WTPH - 418.1 Heavy Oil
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/Kg	100
#1 208 McKenzie	5709715	2,000	mg/Kg	100
#2 208 McKenzie	5709716	800	mg/Kg	100
#3 208 McKenzie	5709717	<100	mg/Kg	100

All results reported on a dry weight basis

ccpy to Jon Einarsen - W.D. Purnell & Associates

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04649

Avocet Environmental Inc.
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-0061
TOLL FREE 800/442-TEST (8378)

CLIENT Bellingham Shoreline Co ~~Purnell Ass~~ Harbor Center

DAY PHONE

PO #

ADDRESS 1501 Roeder Ave Suite 150

FAX

CONTACT NAME Dan McShane / Jan

CITY, STATE, ZIP Bellingham Wa

SYSTEM ID #

CIRCLE GROUP A B

COLLECTOR OF SAMPLE Eric Smith

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
1 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709715
2 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709716
3 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	same day 418.1 turnaround	5709717
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

REMARKS: Verbal results on #3 by 5pm today DK

RELEASING SIGNATURE	DATE	TIME
Eric Smith		
RECEIVING SIGNATURE	DATE	TIME
DK	11/25/94	1:50PM

RELEASING SIGNATURE	DATE	TIME
RECEIVING SIGNATURE	DATE	TIME

PHASE I ENVIRONMENTAL SITE ASSESSMENT
HOMEPORT PROPERTIES INC
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON

prepared for

City of Bellingham
210 Lottie Street
Bellingham, WA 98225

June 26, 2006

prepared by

WHATCOM ENVIRONMENTAL SERVICES
119 North Commercial Street #120
Bellingham, WA 98225
Phone: (360) 752-9571
Fax (360) 752-9573
www.whatcomenvironmental.com

PHASE I ENVIRONMENTAL SITE ASSESSMENT
HOMEPORT PROPERTIES INC
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON

Prepared for:

City of Bellingham
210 Lottie Street
Bellingham, Washington 98225

Prepared by:

Whatcom Environmental Services
119 N. Commercial St., Suite 120
Bellingham, Washington 98225
(360) 752-9571

June 26, 2006

Harold J. Cashman
Project Manager

Thomas A. Davis
QA/QC Reviewer

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Figure 1. Site Location Map
Figure 2. Area Map
Figure 3. Site Map

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Photograph 1. A view looking northwest from the southeast corner of the property.
Photograph 2. A view looking west from near the center of the eastern edge of the property.
Photograph 3. A view looking south/southeast at the interior of the property. Note the spent sandblasting grit in the drums as well as on the ground surface.
Photograph 4. Located at the southwest corner of Building #1, these drums contain petroleum products and have been stored onsite for over 8 years.
Photograph 5. These drums are located behind Iota Metal Workings and contain scrap lead used as boat ballast. Note as well the gas cans and oil buckets.
Photograph 6. Located behind Building #4, these drums contain unknown products and have been stored onsite for over 8 years.
Photograph 7. A view of the AST located on the eastern exterior wall of John's Repair Shop. No evidence of spillage was observed around the tank.
Photograph 8. This waste oil tank is located west of John's Repair Shop and is accessed from a sink in the shop interior. Note the secondary containment system. No evidence of spillage was observed in relation to this tank.
Photograph 9. This hydraulic lift is located in John's Repair Shop. Note the sawdust used as an absorbent to contain leaking hydraulic oil.
Photograph 10. A view looking north from the center of the property. Note the concrete footprint of the former Chain and Forge building (top center). Historic tanks would have been located below the arrow.
Photograph 11. A view looking south from the parking lot west of John's Repair Shop. Note the metal plates in the concrete. This concrete slab was once the floor of the Bellingham Chain and Forge building.
Photograph 12. This set of pipes is located in the concrete parking lot west of John's Repair Shop and was once associated with the Bellingham Chain and Forge building.

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Appendix A - User Provided Information and Title Records
Appendix B - Regulatory Profile
Appendix C - Historical Use Information
Appendix D - Interview Documentation and Owner Provided Information
Appendix E - Resumes of Environmental Professionals

1.0 SUMMARY

This report presents the results of a Phase I Environmental Site Assessment (ESA) conducted by Whatcom Environmental Services (WES) on behalf of the City of Bellingham (Client). The ESA was conducted for the Homeport Properties Inc. property located at 210 McKenzie Avenue in Bellingham, Washington (subject property). The property is approximately 3.3 acres in area and consists of one parcel. This Phase I ESA was conducted in general accordance with the ASTM Designation: E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM, 2005). The ESA involved a visual inspection of the subject and adjacent properties, interviews with key personnel, a survey of relevant government and regulatory files, and preparation of this report.

A goal of the Phase I ESA process is to identify *recognized environmental conditions*. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property (ASTM, 2005). The term includes hazardous substances or petroleum products even under conditions in compliance with laws.

The ESA has revealed evidence of recognized environmental conditions in connection with the subject property.

One area of particular interest is located near the northwest corner of the property parcel. Three large fuel oil storage tanks were located in that area from approximately 1950 to 1993. The tanks were partially buried and are visible on historic aerial photographs and on historic fire insurance maps. The tanks were removed from the ground in 1993 and a remedial action was conducted at the site in 1994. Contaminated soil was thermally treated onsite and placed back in the excavation.

Past use of the property as a boat manufacturing facility and as a foundry may have impacted surface soil at the property.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this Phase I ESA was to identify recognized environmental conditions in connection with the subject property, and to permit the Client to satisfy requirements of all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial and customary practice. The term "recognized environmental conditions" is defined in Section 2.5. The purpose of the ESA process is to provide a commercially prudent and reasonable inquiry to identify recognized environmental conditions in connection with a property. By conducting this ESA, the Client has undertaken, at the time of property acquisition, all appropriate inquiry into the previous ownership and uses of the subject property consistent with good commercial or customary practice in an effort to minimize liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

2.2 DETAILED SCOPE OF SERVICES

The ESA of the subject property was conducted in general accordance with procedures set forth in the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-05*.

The ESA process consists of four components: (1) an electronic review of records pertaining to environmental conditions onsite and at adjacent properties, (2) site reconnaissance by an environmental professional, (3) interviews with the current owner(s) and occupant(s) of the property and local government officials, and (4) preparation of an ESA report which documents all steps taken during the assessment.

2.3 SIGNIFICANT ASSUMPTIONS

Significant assumptions associated with the findings of this Phase I ESA include the understanding that all information provided by the Client and all individuals interviewed is true and correct.

The methodology used to conduct the site visit and complete the Phase I ESA generally followed common industry practices. A Phase I ESA is based on visual inspection and review of available historical records, and assessment is primarily confined to surface structures or features. The findings and conclusions presented in this report are based on reasonably ascertainable information compiled by WES during the Phase I ESA. The ESA focuses on potential sources of hazardous substances, petroleum substances, and petroleum hydrocarbons that could be considered a liability due to their possible presence on-site in significant concentrations (e.g., above acceptable limits set by Federal and State government) or due to the potential for contamination migration through exposure pathways (e.g., groundwater) from off-site locations. Hazardous substances naturally occurring in plants, soil, and rocks (e.g., trace metals and naturally occurring asbestos) are not typically considered in a Phase I ESA.

2.4 LIMITATIONS AND EXCEPTIONS

No Phase I ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this ESA by WES is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards. This ESA did not include delineation of wetlands. This ESA also did not include asbestos or lead paint investigations.

The WES staff that conducted the ESA meet the requirements of environmental professional as outlined in ASTM E 1527-05. The liability of WES and its employees is limited to the Client only and only up to the amount of the fee actually received for the assignment. There is no obligation or liability to any third party.

2.5 SPECIAL TERMS AND CONDITIONS

This Phase I ESA was conducted in general accordance with the ASTM Designation: E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM, 2005).

The term *recognized environmental conditions* means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground-water, or surface water of the property (ASTM, 2005).

The term *petroleum products* means crude oil or any fraction thereof including gasoline, kerosene, diesel oil, jet fuels, fuel oil, natural gas, natural gas liquids, liquefied natural gas, and synthetic gas.

A substance is defined as a *hazardous substance* pursuant to section 101 (14) of the Federal cleanup law 42 U.S.C., Sec. 9601(14) as interpreted by EPA and the courts. A hazardous substance means any liquid, solid, gas, or sludge that exhibits any of the hazardous physical, chemical, or biological properties described in Washington Administrative Code (WAC) 173-303-090 or 173-303-100 (Dangerous Waste Regulations).

2.6 USER RELIANCE

WES prepares a report for the Client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. The report must be used in its entirety. This Phase I ESA report was prepared for exclusive use by the City of Bellingham, and may not be used, relied upon, or assigned to a third party without written consent from WES.

3.0 SITE DESCRIPTION

The ESA was conducted for the Homeport Properties Inc. property located 210 McKenzie Avenue in the Fairhaven neighborhood in Bellingham, Washington. The site location is shown on Figure 1.

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located at the southwest corner of the intersection of 4th Street and McKenzie Avenue in Bellingham, Washington (Figure 1). The property is located in the southeast quarter of the southeast quarter of Section 2, Township 37 North, Range 2 East. The subject property covers approximately 3.3 acres. The property is zoned Industrial. Figure 2 shows the subject property outline and adjacent parcels. The property Tax Parcel Number and legal description are as follows:

> Parcel #: 370202 452038 0000 - TR IN GOVT LOT 1 DAF-BEG ON S LI OF MCKENZIE AVE 50 FT W OF C/L OF FOURTH ST FAIRHAVEN LAND CO'S 2ND ADD TO FAIRHAVEN TH W ALG S LI OF MCKENZIE AVE 474 FT-TH SLY PAR TO FOURTH ST 300 FT-TH E PAR TO LI OF SD HAWLEY TR-A STRAIGHT EXT NLY THEREOF 1451.5 FT-TH W

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The subject property is located in an area characterized by commercial and industrial land. The subject property has been developed since at least the early 1900s.

The median elevation of the site is approximately 25 feet above mean sea level. The site topography is generally level.

Soils in the area of the subject property are described in the Soil Survey of Whatcom County Area, Washington (U.S. Department of Agriculture [USDA], 1992). The soil on the subject property is described as Urban Land with 0 to 3 percent slopes. Urban Land consists of areas covered by streets, parking lots, and other structures that so obscure the soils that identification of the soil series is not feasible. The average annual precipitation at the property

is approximately 35 inches, the average annual air temperature is approximately 50° F, and the average frost-free period is approximately 170 days.

The bedrock under the site is the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

The area is designated as Zone C (areas of minimal flooding) by the National Flood Insurance Rate Program (FEMA, 1990).

3.3 CURRENT USE OF THE PROPERTY

The subject property is located in an established industrial area and is currently used for several industrial activities. There are currently six structures on the subject property. Starting from the eastern edge, the buildings are used for storage, boat construction and metal fabrication, storage and as a woodshop, and an auto repair facility. The small house located in the northwest corner of the property is vacant.

3.4 DESCRIPTION OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS ONSITE

There are a total of six structures located on the subject property. Building #1 is located on the eastern side of the parcel. It is the largest of the six structures at ~7,000 sq. ft. and is constructed of metal beams with a sheet metal skin. Building #2 is a wooden frame building located west of #1 and is ~5,000 sq. ft. in area. Building #3 (west of #2) is connected to #2 by a small walkthrough. Building #3 is a wooden frame construction that is ~2,500 sq. ft. in area. Building #4, located south of #3, is ~1,000 sq. ft. in area and made of wood. Building #5, located west of #3, is ~3,000 sq. ft. in area and made of wood. Building #6 is located in the northwest corner of the subject property, made of wood, and has a footprint that is ~1,000 sq. ft. in area. Building #6 has a basement. All buildings have concrete floors. Buildings #4 and #5 are not heated or protected by a fire sprinkler system.

The southeast corner of the subject property has been leveled. The leveling work occurred in the late 1990's as part of preparation efforts for the construction of a new structure south of Building #1. The volume of soil removed from the site at that time is unknown.

3.5 CURRENT USE OF THE ADJOINING PROPERTIES

The layout of the subject property and adjoining properties is shown on Figure 2. The L-shaped parcel to the south and west is used by The City of Bellingham as a wastewater treatment plant. The property to the east, on the other side of 4th Street is used as a long term parking lot for passengers of the Alaska Ferry. The property to the north is used for industrial purposes as a warehouse.

4.0 USER PROVIDED INFORMATION

Mr. Geoff Smyth provided user information for the subject property on behalf of the Client (City of Bellingham) on June 26, 2006. A User Information Checklist completed by Mr. Smyth is included in Appendix A.

4.1 TITLE RECORDS

The City of Bellingham provided a summary of title records for the subject property going back to 1963. A copy of the deed history is provided in Appendix A.

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Mr. Smyth was not aware of any environmental liens or activity or use limitations associated with the subject property.

4.3 SPECIALIZED KNOWLEDGE

Mr. Smyth stated that the City was aware of an underground storage tank removal and contaminated soil cleanup action which occurred at the site in the early 1990s.

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Mr. Smyth was not aware of any valuation reduction for environmental issues associated with the subject property.

4.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The property owner is Mr. George Sahlin who can be reached at Homeport Properties Inc. at (360) 734-0680. The property manager is Mr. Irvin Chunyk who can be reached at (360) 734-0680. Two tenants currently occupy buildings at the subject property. Mr. Pete Silva owns

Iota Metal Working Services which operates out of Building # 2 and can be reached at (360) 738-4986. Mr. John Erickson owns John's Repair which operates out of Building # 5 and can be reached at (360) 733-1982.

4.6 REASON FOR PERFORMING PHASE I ESA

A Phase I ESA is required by the City of Bellingham as one component of its due diligence process. The Client requested that a Phase I ESA be performed on the subject property in order to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability. This ESA was performed in order to identify recognized environmental conditions associated with the subject property through the scope reflected in the text of this report.

5.0 RECORDS REVIEW

An ASTM standard records search and regulatory profile of the subject property and adjacent properties within a one-mile minimum search distance was compiled by Environmental Data Resources, Inc. (EDR). A total of 49 federal, state, and proprietary databases were searched by EDR.

5.1 STANDARD ENVIRONMENTAL RECORDS SOURCES

The regulatory profile provided by EDR included searches of the ASTM-required standard environmental record sources. A copy of the EDR report findings reviewed by WES is provided in Appendix B.

The subject property was not listed in any of the ASTM-required standard environmental record sources searched by EDR.

Twelve listed sites, some with more than one name, were found within the ASTM standard search distance. Five out of the twelve sites are located within ⅛ mile of the subject property and one is an adjacent parcel.

The listed site immediately adjacent to the subject property is the Bellingham Post Point Wastewater Treatment Facility located at 200 McKenzie Avenue. It is listed in the Federal Resource Conservation and Recovery Act Information (RCRA, Appendix C, p. GR-2) as a Small Quantity Generator (SQG), The Emergency Response Notification System (ERNS, Appendix C, p. GR-2), the Federal Facility Index System (FINDS, Appendix C, p. GR-6) database, the Washington State Underground Storage Tank (UST, Appendix C, p. GR-8) database, and the Washington Emissions Data System (EMI, Appendix C, p. GR-9). The listed site is lower in elevation than the subject property.

The next closest listed site to the subject property is Fairhaven Shipyard located at 201 Harris Avenue (~275 ft north). The site is listed in the FINDS database, the RCRA-SQG database, the UST database, the WA State Confirmed and Suspected Contaminated Sites List (CSCSL, Appendix C, p. GR-7), the Reported Spills database (SPILLS, Appendix C, p. GR-8),

and the Hazardous Waste Manifest Information database (MANIFEST, Appendix C, p. GR-8). The listed site is lower in elevation than the subject property.

The third closest listed site to the subject property is the Alaska Ferry Terminal located at 365 Harris Avenue (~279 ft north). The site is listed in three of the searched databases; the RCRA-SQG database, the FINDS database, and the MANIFEST database. The listed site is lower in elevation than the subject property.

The fourth closest listed site is located at the intersection of 4th Street and Harris Avenue (~280 ft north/northeast). No information is given to which parcel at the corner of 4th and Harris the listing refers. The site is listed in the CSCSL, the FINDS, the Voluntary Cleanup Program Sites list (VCP, Appendix C, p. GR-8), and the Independent Cleanup Reports database (ICR, Appendix C, p. GR-9). The listed site is lower in elevation than the subject property.

The last site listed within ⅛ mile of the subject property is the Glacier Distributing Company located at 300 Harris Avenue (~441 ft northeast). In fact, the site is located to the north, across McKenzie Avenue. The site is only listed in the Washington State UST database and is listed as having the UST removed. The listed site is lower in elevation than the subject property.

Two sites outside the ⅛ mile radius of particular note are the sites listed at 809 Harris Avenue and the site listed at the intersection of 9th and Harris. The site at 809 Harris site is a business park and has several different businesses occupying it. It is listed in the RCRA-SQG, the MANIFEST, the ICR, the UST, the WA State Leaking Underground Storage Tank database (LUST, Appendix C, p. GR-8), and the HAZNET database, which is not described by EDR. The Tollycraft Yachts Corporation at 9th and Harris is listed in the CSCSL, the FINDS, the RCRA database as a Large Quantity Generator (LQG), and the Comprehensive Environmental Response, Compensation, and Liability Information System as No Further Remedial Action Planned (CERCLIS-NFRAP, Appendix C, p. GR-2). Both locations are used for boat manufacturing.

The regulatory profile provided by EDR did not reveal recognized environmental conditions at or near the subject property. The listing of the 4th and Harris site is a listing of concern because it refers to a site that is still contaminated and it is unknown if the listing refers to the adjacent site that is now used as long term parking for the Alaska ferry.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

The regulatory profile provided by EDR also included searches of non-ASTM record sources, including a database of former coal gas manufacturing plants. No former coal gas manufacturing plants were identified at or near the subject property.

A map depicting Solid Waste Landfills of Whatcom County prepared by the Whatcom County Health Department (WCHD, 2003) was reviewed. No landfills were identified at or near the subject property.

A Geographic Information System (GIS) database of former coal mines in Western Whatcom County created by WES from information obtained in a 1923 document titled *Geologic Investigation of the Coal Fields of Western Whatcom County, Washington* by Olaf P. Jenkins was reviewed. The report indicated that no former coal mines were located on the subject property. However, one historic coal mine was reported to be located less than 1 mile from the property. The Pattle Mine was reportedly located northeast of the property near Boulevard Park.

A 1983 report titled *Oil and Gas Exploration in Washington, 1900-1982* (McFarland, 1983) was reviewed to assess the possibility of historical drilling on the subject property. The document indicated that no drilling for oil or gas occurred on or near the subject property.

The review of additional environmental record sources did not reveal any recognized environmental conditions at or near the subject property.

5.3 PHYSICAL SETTING SOURCES

Several sources of information were reviewed to determine the physical setting of the subject property. The ASTM-required source, the U.S. Geological Survey (USGS) Eliza Island Quadrangle (USGS, 1998) was reviewed.

Other sources reviewed included the Geologic Map of Western Whatcom County (Easterbrook, 1976a), the Map Showing Slope Stability in Western Whatcom County (Easterbrook, 1976b), the Map Showing Engineering Characteristics of Geologic Materials, Western Whatcom County (Easterbrook, 1976c), the Geologic Map of the Bellingham 1:100,000 Quadrangle, (WSDNR, 2000), the Soil Survey of Whatcom County, Washington (USDA, 1992), and the Federal Emergency Management Agency Flood Insurance Rate Map (FEMA, 1990).

5.4 HISTORICAL SETTING SOURCES

Sanborn fire insurance maps were ordered from EDR as well as reviewed at the Bellingham Public Library. A summary of the findings is provided in Section 5.5.1.

A Kroll Atlas for the year 1997 was reviewed at the Bellingham Public Library. A summary of the findings is provided in Section 5.5.2.

Five Metsker Atlases of Whatcom County, Washington from 1925, 1942, 1960, 1971 and 1983 were reviewed at the Bellingham Public Library. Copies of the Metsker Atlases for the years 1942 and 1960 are presented in Appendix C. A summary of the findings is provided in Section 5.5.3.

Polk City Directories on file at the Bellingham Public Library were searched from 1900 to 2003. A summary of the findings is provided in Section 5.5.4.

Aerial photographs taken in 1950 and 1962 were reviewed at the City of Bellingham's City Hall. Aerial photographs taken in 1975, 1986, and 1995 were reviewed at Whatcom County Assessor office in the Whatcom County Courthouse, Bellingham, Washington. Aerial photographs taken in 2002 and 2004 were obtained online from the City of Bellingham's Geographic Information System (GIS). Two oblique aerial photos from the private collection of Mr. Gordon Tweit, taken of the site in the 1940's and 1963, were reviewed at Fairhaven Pharmacy in Bellingham, Washington. Copies of the aerial photographs reviewed are presented in Appendix C. A summary of the aerial photograph findings is provided below in Section 5.5.5.

Historical topographic maps from 1943 (Anacortes, WA Quadrangle 1:62,500 series), 1977, 1995, and 1998 (USGS Eliza Island, WA Quadrangle 1:24,000 series) were reviewed. Copies of the Historical topographic maps reviewed are presented in Appendix C. A summary of the historical topographic map findings is provided below in Section 5.5.6.

5.5 HISTORICAL USE INFORMATION ON THE PROPERTY

The subject property has been developed as an industrial site since at least the early 1900's. In the past, the site has been used as a brick making facility, a foundry, a chain manufacturing facility, a boat manufacturing facility, warehousing, auto repair, and machine shop. A summary of historical uses of the property is included below.

5.5.1 SANBORN MAPS

Sanborn Maps were ordered from EDR as well as reviewed at the Bellingham Public Library. Maps obtained from EDR included the years 1890, 1891, 1897, 1904, 1913, and 1950. Maps reviewed at the Bellingham Public Library included the years 1932 and 1964.

The first time structures are shown on the subject property is in 1904. The structures are part of an industrial ironworks complex consisting of three structures. It appears as if there may have been oil storage located at the corner of 3rd and McKenzie in 1904. In 1913 the site was used as a brick manufacturer. There are three structures located on the subject property at this time, and a large circular kiln is noted behind the building with a 206 address. The 1932 map shows only two structures on the property. The site is now listed as a chain forging facility with fuel indicated as being provided by oil. Also of note in the 1932 map is a Crude Oil tank shown on the block just east of the subject property, across 4th Street. The 1950 map shows a much larger Bellingham Chain and Forge complex. Whereas in the 1932 map the complex consisted of two structures located between 2nd and 3rd streets, the 1950 map shows a complex of eight structures. Three circular fuel oil tanks are shown south of the office building in the northwest corner of the property. The 1964 map shows the property with several vacant buildings and the chain manufacturer no longer in business. All buildings present in 1950 are still standing. The two eastern-most structures are now used as part of a boat manufacturing business. The three fuel oil tanks near the northwest corner of the parcel are still present.

Two recognized environmental condition were noted during the Sanborn map review. The presence of the three fuel oil tanks in the northwest corner of the property is considered a recognized environmental condition. The presence of a crude oil tank on the property located east of the subject property across 4th Street is considered an historical recognized environmental condition. The historical crude oil tank could be related to the CSCSL listing at 4th and Harris.

5.5.2 KROLL ATLAS

A 1997 Kroll Atlas for the city of Bellingham was reviewed at the Bellingham Public Library. The Kroll Atlas showed the subject property but did not provide any information regarding past use. A copy of the 1997 Kroll Atlas reviewed is provided in Appendix C.

No recognized environmental conditions were noted during the Kroll Atlas review.

5.5.3 METSKER ATLAS OF WHATCOM COUNTY, WASHINGTON

Five Metsker Atlases of Whatcom County from 1925, 1942, 1960, 1971, and 1983 were reviewed at the Bellingham Public Library. The majority of the atlases did not provide much information about past use of the subject property. However, two years were of particular interest. The first year of interest is 1942. The 1942 atlas shows a parcel of land to the southwest of the subject property owned by Union Oil Company. This parcel is now included in the adjacent parcel to the south of the subject property. The atlas also shows a rail spur running along McKenzie Avenue in front of the subject property. The second year of interest is 1960. The 1960 atlas shows rail spur that was noted in the 1942 atlas no longer active and removed. Copies of the 1942 and 1960 Metsker Atlases are provided in Appendix C.

No recognized environmental conditions were noted during the Metsker Atlas review.

5.5.4 CITY DIRECTORIES

Polk City Directories were searched at the Bellingham Public Library for the years between 1900 and 2003. The subject property was listed. The site businesses indicated in the Sanborn map review are corroborated by the Polk city directories. The Bellingham Chain and Forge business left the site between 1961 and 1962. From 1962 to the present, the property has been used by several boat manufacturing companies. In 1992, a company called Enerwaste International occupied the 212 address. Enerwaste built incinerators. The present day auto repair shop is listed in 1992 as well. In 1998 refrigeration equipment was being sold from the 212 address. In 2003, the 212 address had a company called EcoWaste Solutions Group. EcoWaste is a waste disposal company. It is unknown if waste was stored onsite prior to disposal.

One potential historical recognized environmental condition was noted during the Polk City Directory review. The presence of boat construction activity at the site may have introduced hazardous substances to the property soils and/or groundwater.

5.5.5 AERIAL PHOTOGRAPHS

Aerial photographs of the subject property and surrounding area were reviewed to assess prior land utilization. Aerial photographs from the years 1950, 1962, 1975, 1986, 1995, 2002, and 2004 were reviewed. Two oblique aerial photos were also reviewed. The oblique

photos are from sometime in the 1940's and from 1963. Copies of the aerial photographs are included in Appendix C.

The 1940's oblique photo is a view towards the south and shows the subject property in full operation. The Chain and Forge buildings are visible, as well as all present structures. The graininess of the photo makes it hard to see the three fuel oil tanks near the northwest property corner. The property was surrounded on the east, west and south by vacant land. It appears as if the land to the west of the property was once a wetland.

The 1950 photo is similar to the previous image. It shows the subject property with all present structures, as well as the Chain and Forge buildings. Due to the graininess of the photo, the three fuel oil tanks are barely discernable in the northwest corner of the property. Parcels to the west, south, and east remain undeveloped. The large circular Crude Oil storage tank on the property to the east is visible in this image.

The 1962 image shows the property with all current structures and the two Chain and Forge buildings. The three fuel oil tanks are visible in the property's northwest corner. A new structure is seen south of Buildings #3 and #4. The adjacent properties to the east, west, and south remain undeveloped. However, the south parcel appears to have been cleared or is in the process of being filled. Also, the small triangular parcel to the north of the subject property has had its former structures razed and is now vacant.

The 1963 oblique image is a view towards the north and shows a similar property layout as in the previous image. A small shed is seen near the southern property line, south of the new structure noted in the previous image. The three fuel oil tanks are clearly seen south of the office building at the northwest corner of the property. The adjacent parcel to the south that appeared to be in the process of being filled and graded in the 1962 image is seen in this image with a scattering of new plant growth on bare soil.

The 1975 photo shows the property with all structures seen in the previous image. Some surface disturbance is seen south of the forge building in the southwest corner of the property. The first structures of the Post Point Water Treatment plant are seen to the south and west of the property. The crude oil tank to the east of the property is not seen in this image. Construction work in the area may indicate that the tank was removed around this year.

The 1986 photo shows some significant changes at the subject property. The pull-test building that sat on the southern edge of the property is no longer present. Anecdotal evidence

suggests that this structure was destroyed in a fire, but no evidence is visible in this image of that fate. The structure noted as new in the 1962 image is also no longer present. Planted trees now line the western and southern edges of the property. The three fuel oil tanks are not easily seen in this image. The wastewater plant does not appear to have significantly changed since 1975. A new structure is present to the north of the subject property in the triangular parcel across McKenzie Avenue. The property to the east where the crude oil tank once was is now a storage yard for boats and what appears to be lumber.

The 1995 photo shows the subject property in its present day configuration. Three storage trailers appear to be present south of Buildings #1 and #2. The area to the south of the office building in the northwest corner of the property has been cleared of trees since the previous image and the three fuel oil tanks are gone. A dark patch is seen along the southern edge of the property south of Building #5. The origin of this dark patch is unknown. The wastewater plant has been expanded since 1986 and walking trails are visible on the west, south and east of the complex. The parcel to the east where the crude oil tank once was is now a parking lot.

The 2002 image shows the property as in its current state. Stored boats are seen in the open area south of Buildings #5 and #6. One large plastic covered Quonset hut is present near the southeast corner of Building #1 and a smaller hut is present south of Building #2. The southeast corner of the property appears to have been leveled or cleared of trees. Surrounding parcels have changed little since 1995.

The 2004 image shows the property as it is currently. The large Quonset hut that was at the southeast corner of Building #1 is no longer present. All other structures appear not to have changed from the previous image. Surrounding parcels are not significantly different from the 2002 image.

Two recognized environmental condition were noted during the aerial photograph review. The presence of the three fuel oil tanks in the northwest corner of the property is considered a recognized environmental condition. The presence of a crude oil tank on the property located east of the subject property across 4th Street is considered an historical recognized environmental condition. The historical crude oil tank could be related to the CSCSL listing at 4th and Harris.

5.5.6 HISTORIC TOPOGRAPHIC MAPS

Historical topographic maps were reviewed as part of this ESA. One historical topographic map quadrangle (USGS Eliza Island, WA Quadrangle 1:24,000 series) originally published in 1977's and photorevised in the 1995 and again in the 1998 was reviewed. Also, a 1:62,500 topographic map of the Anacortes, WA quadrangle printed in 1943 was reviewed. The maps were ordered from EDR. Each map shows structures located on the subject property, but no tanks. The 1977 map shows both the forge building and the chain test building. The 1994 and 1998 maps do not show those two structures. Copies of the historical topographic maps are provided in Appendix C.

No recognized environmental conditions were noted during the historical topographic map review.

5.5.7 TITLE DOCUMENTS

As previously discussed in Section 4.1, a historical summary of title records for the subject property was provided by the Client. The documents provided only cover the years between 1963 and 2000. The documents chronicle the ownership of the property from Bellingham Chain and Forge to Homeport Properties, Inc., the present owners. Copies of the user provided title documents are included in Appendix A.

No recognized environmental conditions were noted during the historical summary of title records review.

5.6 HISTORICAL USE INFORMATION ON ADJOINING PROPERTIES

Review of historical use information did identify evidence of historical recognized environmental conditions at least one of the adjoining properties. The property to the east of the subject property had a large aboveground crude oil storage tank located on it in the past.

6.0 SITE RECONNAISSANCE

Mr. Thomas Davis and Mr. Harold Cashman of WES conducted a site reconnaissance of the subject property on June 16, 2006 as part of the Phase I ESA. A photographic log showing selected views of the subject property is included in the report.

6.1 METHODOLOGY AND LIMITING CONDITIONS

Environmental professionals from WES conducted the site reconnaissance. All accessible areas of the property were explored. Building #1 was locked and was not entered, and Building #6 was inaccessible due to it being overgrown with brambles.

6.2 GENERAL SITE SETTING

The subject property is an approximately 3.3 acre rectangular shaped industrial property located immediately north of the City of Bellingham wastewater treatment plant. The general layout of the subject property is shown on Figure 3. Access to the property was available through gated entrances at John's Repair Shop and Iota Metal Working Services. The property is generally level with a vegetated cut-bank hill slope located in the southeastern corner. The southeast corner of the property appears to have been leveled sometime in the recent past as evidenced by the cut bank slope. The lower portion of the cut bank appears to consist of Bellingham Glaciomarine drift (silty clay with gravel). A shallow drainage ditch is located in the east central portion of the property.

The entire property is fenced to limit public access. The eastern property boundary of the property is heavily vegetated with trees and brush. The southern and western boundaries border the City of Bellingham wastewater treatment plant. The northern boundary parallels Harris Avenue.

Observations made during the site walk are described moving from east to west across the subject property. The perimeter of Building #1 was explored. Eight 55 gallon drums are located near the southwest corner of the building. The drums are not currently being used by any tenants at the property. The drums contain anti-freeze, methanol, hydraulic oil, motor oil

(2), kerosene (2), and an unknown product labeled Nuto H-32. Miscellaneous metal scrap is located north of the drums along the west side of Building #1. The interior of Building #1 was not explored because the building was locked. The vacant building is reported to be generally empty.

Approximately seventeen 55 gallon drums are located approximately 80 feet south of the southwest corner of Building #1. The drums belong to Iota Metal Working Services. The open drums appear to be filled with spent sand blast grit. The ground in this area is covered with spent sandblast grit. An overgrown pile of soil and/or debris is located south of sand blast area near the southern property boundary. The pile is covered with dense vegetation (including brambles) that made exploration of the pile contents difficult.

The exterior perimeter of Building #2 (Iota Metal Working Services) was explored. Miscellaneous metal scrap is located along the east side of the building. A small trailer is located south of the building which is used to store paint and other small quantities of chemicals and cleaning products. Several 55 gallon drums of miscellaneous petroleum products are stored near the small paint storage trailer. Scrap lead is stored on an uncovered pallet and open drum near the paint trailer. The lead is melted down by Iota and used as ballast in newly constructed boats. The interior of Building #2 is used by Iota Metal Workings to construct metal boats. The building is a functioning machine shop filled with metal fabrication equipment. Small quantities of lubricating oils, cleaning products, paints, paint thinner, and metal are stored in the building.

A Quonset hut located south of Building #2 covers a sailboat under construction. The ground inside the hut is covered with spent sand blast grit.

Several 55 gallon drums are stored south of Building #4. The drums are overgrown with brambles and the contents are unknown. A steel pipe was observed protruding from the ground near the southeast corner of Building #4. The purpose of the protruding pipe is unknown. The interior of Building #4 appeared to be used for storage of office furniture and miscellaneous tools and equipment.

An above ground heating oil tank is located against the exterior east wall of Building #5. The tank supplies an oil furnace used to heat the building. Several drums of unknown content are located south of Building #5. A waste oil tank is located on the west side of the building. The waste oil tank is used to store waste oil generated by John's Repair Shop, which occupies Building #5. The waste oil tank was in good condition and had adequate secondary containment. Mr. John Erickson (owner of John's Repair) reported that the waste oil is picked

up by Safety Clean when the waste oil tank becomes full, and that other small quantities of automotive fluids are regularly delivered to the Disposal of Toxics site in Bellingham. A hydraulic automobile lift is located in the interior floor of the building. Mr. Erickson reported that he installed the lift, and that it extends to a depth of approximately 8 feet below ground surface. The lift was observed to be leaking a small amount of hydraulic oil onto the shop floor.

The area immediately west of Building #5 is covered by a patchwork of concrete and metal slabs. That area was the location of the former chain forge building. The exterior perimeter of Building #6 could not be explored due to thick brambles.

Approximately 20 boats are stored in the southwest portion of the site.

In general, the subject property showed evidence of historical and current industrial uses, and several areas of concern were noted, as detailed below in Section 8.0.

7.0 INTERVIEWS

WES personnel conducted several interviews as part of the ESA process.

7.1 INTERVIEW WITH OWNER

Mr. C. Rodger Sahlin of Homeport Properties, Inc. was faxed an interview questionnaire on June 15, 2006. Mr. Sahlin is owner of the subject property. Mr. Sahlin has owned the property for approximately 29 years. He stated that the property has been used for rental and storage since he purchased it in 1977. Mr. Sahlin provided schematic drawings of the property structures. Mr. Sahlin was not aware of any existing environmental reports or documents related to the property other than two reports prepared when three oil storage tanks were removed from the ground in 1993-94. The reports were authored by Purnell and Associates, Inc. of Bellingham, Washington. The reports are titled *Environmental Site Assessment: Phase II, 206 and 208 McKenzie Avenue, Bellingham, Washington* and *Final Report, On-Site Thermal Desorption of Contaminated Soil, 206 and 208 McKenzie Avenue, Bellingham, Washington*.

Mr. Sahlin stated that, to his best knowledge, there are no hazardous substances or underground storage tanks at the site currently. Mr. Sahlin stated that there have been hazardous materials stored onsite in the past. He stated that boat bottom painting activities have occurred onsite in the past. Mr. Sahlin was unaware if any hazardous substances were present on the site currently. Mr. Sahlin stated he was unaware if any fill material was brought onsite from an offsite source. Mr. Sahlin stated that he has never noticed any stressed vegetation or strange odors associated with the subject property. A record of the interview form, building schematics, and the Purnell and Associates reports provided by Mr. Sahlin are included in Appendix D.

7.2 INTERVIEW WITH SITE MANAGER

The property is managed by the owner.

7.3 INTERVIEWS WITH OCCUPANTS

Mr. Pete Silva of Iota Metal Working Services was informally interviewed on June 16th during the site visit. Mr. Silva has operated his boat building and metal fabrication business at the site for approximately eight years. Mr. Silva reported that a Mr. Wallace Atkinson operated an incinerator fabrication business at the site in the past. Mr. Silva reported that Mr. Atkinson stored an abundance of miscellaneous steel, equipment, and drums at the site, and that the drums located south of Building #4 were left by Mr. Atkinson. Mr. Silva also reported that the drums stored near the southwest corner of Building #1 have been there for at least eight years. Mr. Silva uses Kleen Blast brand sand blast grit to clean steel for boat fabrication. He reported that the sand blast grit is periodically shoveled up and placed into the open drums observed at the site.

Mr. John Erickson of John's Repair was informally interviewed on June 16th during the site visit. Mr. Erickson has operated his business at the site since approximately 1984. Mr. Erickson operates an automotive repair shop specializing in Volkswagen engine repair. Mr. Erickson reported that waste oil generated by his business is picked up by Safety Clean when the waste oil tank becomes full, and that other small quantities of automotive fluids are regularly delivered to the Disposal of Toxics site in Bellingham. Mr. Erickson reported that he installed the hydraulic automobile lift located in the interior floor of his shop, and that the lift extends to a depth of approximately 8 feet below ground surface. Mr. Erickson reported that a contaminated soil cleanup action was conducted at the site in the early 1990s. Mr. Erickson thought that Building #5 may have been the galvanizing area when the former chain and forge business was in operation.

7.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Ms. Faith Foster at the Bellingham Fire Department was contacted at (360) 676-6832 by Mr. Davis on June 21, 2006. Ms. Foster reported that the Bellingham Fire Department has records of one underground storage tank (UST) having been removed from 200 McKenzie Avenue in 1990 and three undefined storage tanks having been removed from 206 McKenzie Avenue in 1993. Ms. Foster did not have any information regarding the anecdotal evidence that the chain test building burned to the ground in the past.

7.5 INTERVIEW WITH OTHERS

Ms. Mary O'Herron of the WA Department of Ecology was contacted regarding the sampling and cleanup work being conducted at the Fairhaven/Harris Ave. Shipyard north of the subject property. Ms. O'Herron stated that most of the work at the shipyard site has been undertaken on near-shore and shoreline sediments. Little work has been done on upland areas at the shipyard.

Mr. Gordon Tweit of Fairhaven Pharmacy was contacted to determine if he had any knowledge of the site. Mr. Tweit operates a museum in the basement of the Pharmacy and has extensive knowledge of Fairhaven's history. Mr. Tweit was able to provide several historical photographs of the site. Mr. Tweit reported that he remembered the chain test building fire and that there were several explosions associated with that fire. Mr. Tweit also stated that in the late 1800's fish offal from the local salmon canneries was reportedly dumped in the vicinity of the subject property.

8.0 FINDINGS

This Phase I ESA has revealed evidence of recognized environmental conditions associated with the subject property.

The subject property has been developed as an industrial site since at least the early 1900's. Historical fire insurance maps and city directories provided evidence of past industrial activity on the subject property related to brick manufacturing, chain manufacturing, and boat construction and maintenance. Historical fire insurance maps and aerial photographs provided evidence of three large oil tanks on the subject property. The site reconnaissance revealed evidence of stored drums with unknown contents, lead melting work onsite, sandblasting work onsite, and several vent pipes associated with several of the buildings. Also, two aboveground storage tanks and an underground hydraulic lift were observed at the auto repair shop.

Adjacent lands have historically been undeveloped or industrial properties. The property to the east across 4th street once had a large crude oil tank situated on it. The adjacent property to the south and west, the Post Point Wastewater Treatment Plant, is a listed site.

The site reconnaissance, interview with the site owner, and records review revealed several historical and current recognized environmental conditions.

9.0 OPINION

Based on the results of the Phase I ESA documented in this report, further investigation regarding previous use of the subject property is required to determine if those past uses have impacted the site. WES recommends that a surface/subsurface soil and groundwater investigation be conducted at the subject property.

A historical recognized environmental condition is the past use of the subject property as a boat manufacturing and maintenance facility. Substances used in the past associated with boat manufacturing and maintenance (especially hull paints) have been found to be highly toxic. Sandblasting activities onsite may have introduced hazardous substances to the soil. The

current storage and melting of lead onsite for boat ballast is an issue of concern. A surface soil investigation should be conducted throughout the subject property to assess the impact of past boat building and maintenance activities.

The storage of drums onsite, especially of unknown substances, is a recognized environmental condition. Contents of the stored drums will need to be established and all drums will need to be removed and disposed of at a licensed disposal facility. The soil beneath the drum storage locations should be tested for contamination.

The existence of the three fuel oil tanks in the past is a historical recognized environmental condition. Although the tanks were removed in the past and a petroleum contaminated soil (PCS) cleanup action was conducted onsite using a mobile thermal desorption system, a review of the document describing the remedial action indicates that contaminated soil was left in the excavation. Also, when the tanks were removed in 1993, cleanup levels for gasoline-range total petroleum hydrocarbon (TPH) were higher than they are today. The cleanup report indicated that the soil treated onsite through thermal desorption was cleaned to just below the cleanup level at that time and placed back in the excavation. Therefore, PCS is suspected to remain onsite in the area near the former fuel oil tanks and is considered a current recognized environmental condition. The potential for groundwater contamination caused by the remaining PCS should be considered. A thorough subsurface investigation at the former tanks location should be undertaken.

The location of the former crude oil tank to the east of the subject property, across 4th Street is considered a potential historical recognized environmental condition. It is unknown if the site was properly closed with any contamination present having been removed. It is unknown if the site of the crude oil tank is the same site known as the "4th and Harris" site in the CSCSL database. The "4th and Harris" site is reported to have petroleum contamination and has not yet been fully cleaned-up.

10.0 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 for the Homeport Properties, Inc. property located at 210 McKenzie Avenue in Bellingham, Washington. Any exceptions to, or deletions from, this practice are described in Section 11 of this report.

This assessment has revealed evidence of recognized environmental conditions in connection with the subject property. Recognized environmental conditions identified include:

- the existence of subsurface petroleum contaminated soil associated with the former underground storage tanks;
- metal working operations associated with the former chain and forge business including galvanizing of chain and storage of petroleum products;
- past and current boat fabrication operations, including sand blasting of boat hulls, painting activities, and the use of lead ballast;
- storage of numerous drums of unknown content;
- above ground heating oil and waste oil tanks;
- an underground hydraulic lift;
- the former existence of a crude oil storage tank on the property located east of the subject property.

11.0 DEVIATIONS

There were no significant deviations from the standard practice for Phase I ESAs as presented in ASTM Designation E 1527-05. One slight deviation from the standard would be the WES did not enter three of the site structures during the site visit. The buildings were locked and the site manager was unable to unlock them when the site reconnaissance was conducted.

12.0 ADDITIONAL SERVICES

No additional services were rendered as part of this ESA.

13.0 REFERENCES

American Society for Testing and Materials (ASTM). 2005. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation: E 1527-05). 34 pp.

Easterbrook, D. J. 1976a. Geologic Map of Western Whatcom County, Washington. 1:62,500. Map I-854-B. US Geological Survey, Denver, CO.

Easterbrook, D. J. 1976b. Map Showing Slope Stability in Western Whatcom County, Washington. 1:62,500. Map I-854-C. US Geological Survey, Denver, CO.

Easterbrook, D. J. 1976c. Map Showing Engineering Characteristics of Geologic Materials, Western Whatcom County, Washington. 1:62,500. Map I-854-D. US Geological Survey, Denver, CO.

Federal Emergency Management Agency. 1990. Flood Insurance Rate Map. Whatcom County, WA.

Jenkins, Olaf P. 1923. Geologic Investigation of the Coal Fields of Western Whatcom County, Washington. Bulletin No. 28 (Geologic Series). State of Washington Department of Conservation and Development, Division of Geology, Olympia, WA. p. 110-112.

McFarland, Carl R. 1983. Oil and Gas Exploration in Washington, 1900-1982. Information Circular 75. State of Washington Department of Natural Resources, Division of Geology and Earth Resources, Olympia, WA. 119 pp.

Purnell, W. D. & Assoc. January 5, 1994. Environmental Site Assessment: Phase II, 206 and 208 McKenzie Avenue, Bellingham, Washington. 9 pp.

Purnell, W. D. & Assoc. December 16, 1994. Final Report, On-Site Thermal Desorption of Contaminated Soil, 206 and 208 McKenzie Avenue, Bellingham, Washington. 4 pp. and Appendix.

U.S. Department of Agriculture (USDA). 1992. Soil Survey of Whatcom County Area, Washington. Soil Conservation Service. 481 pp.

U.S. Geological Survey (USGS). 1977, 1995, 1998. Eliza Island, WA Quadrangle. 7.5 minute series topographic map.

U.S. Geological Survey (USGS). 1943. Anacortes, WA Quadrangle. 1:62,500 series topographic map.

Washington State Department of Natural Resources. 2000. Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington. Open File Report 2000-5.

Washington Department of Ecology. 2000. Dangerous Waste Regulations. Chapter 173-303 WAC.

Washington Department of Ecology. 2001. Model Toxics Control Act Cleanup Regulations. Chapter 173-340 WAC.

Whatcom County Health Department. 2003. Solid Waste Landfills of Whatcom County. 36 x 45 inch wall map derived from Whatcom County GIS data.

14.0 ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Harold Cashman
Project Manager

Thomas Davis
QA/QC Reviewer

15.0 QUALIFICATIONS

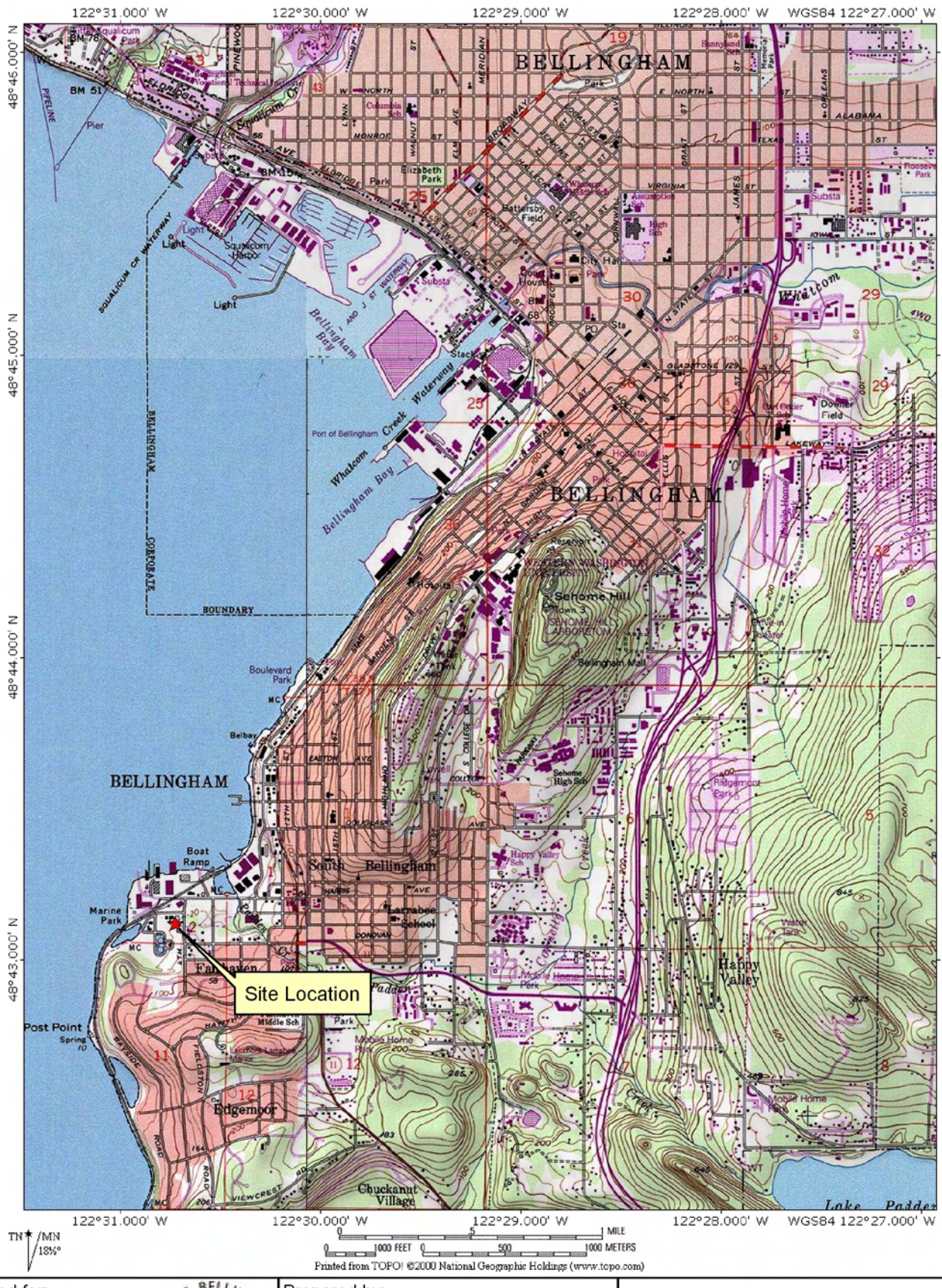
Whatcom Environmental Services (WES) provides a wide range of environmental site assessment and remediation services to commercial, industrial, and municipal clients in Whatcom County. WES was founded in 1997 and is owned and operated by Mr. Harold Cashman and Mr. Eric Libolt.

WES assists clients with remedial investigation/feasibility study project management for sites regulated by the state Model Toxics Control Act (MTCA) and the federal Resource Conservation and Recovery Act (RCRA). WES performs site assessments at Underground Storage Tank (UST) sites and has successfully closed a number of UST systems, including systems that have been out of service for several years. WES has prepared and negotiated numerous site investigation, remediation, and closure plans with the Washington Department of Ecology. WES also provides environmental site assessment services to lending institutions and municipal clients in Whatcom County.

Mr. Cashman received his Masters degree in Geology from Western Washington University in 1991. Mr. Cashman is a Professional Geologist registered in the State of Washington (Registered Geologist #341). He has worked in Whatcom County as a geologist/environmental consultant for over ten years. Mr. Cashman has performed a variety of work in Whatcom County including environmental site assessments, closure of RCRA regulated surface impoundments, delineation of dissolved hydrocarbon plumes, and preparation of MTCA Independent Remedial Action Reports. In performing his RCRA/MTCA project work, he has closely interacted with federal and state regulatory agencies. Mr. Cashman's resume is included in Appendix E.

Mr. Thomas Davis received a Bachelors degree in Geology/Geophysics from Western Washington University. He is currently working on a Masters degree in Geography/Geographic Information Systems from Huxley College of the Environment at Western Washington University. He joined WES in the Fall of 2002 and has performed many local environmental site assessments for municipal and private clients. Mr. Davis' resume is included in Appendix E.

Mr. Cashman has completed 40 hours of Hazardous Waste and Emergency Response Training in accordance with 29 CFR 1910.120. Mr. Cashman and Mr. Davis are registered Washington State Underground Storage Tank Site Assessors.



Prepared for:

City of Bellingham

Prepared by:

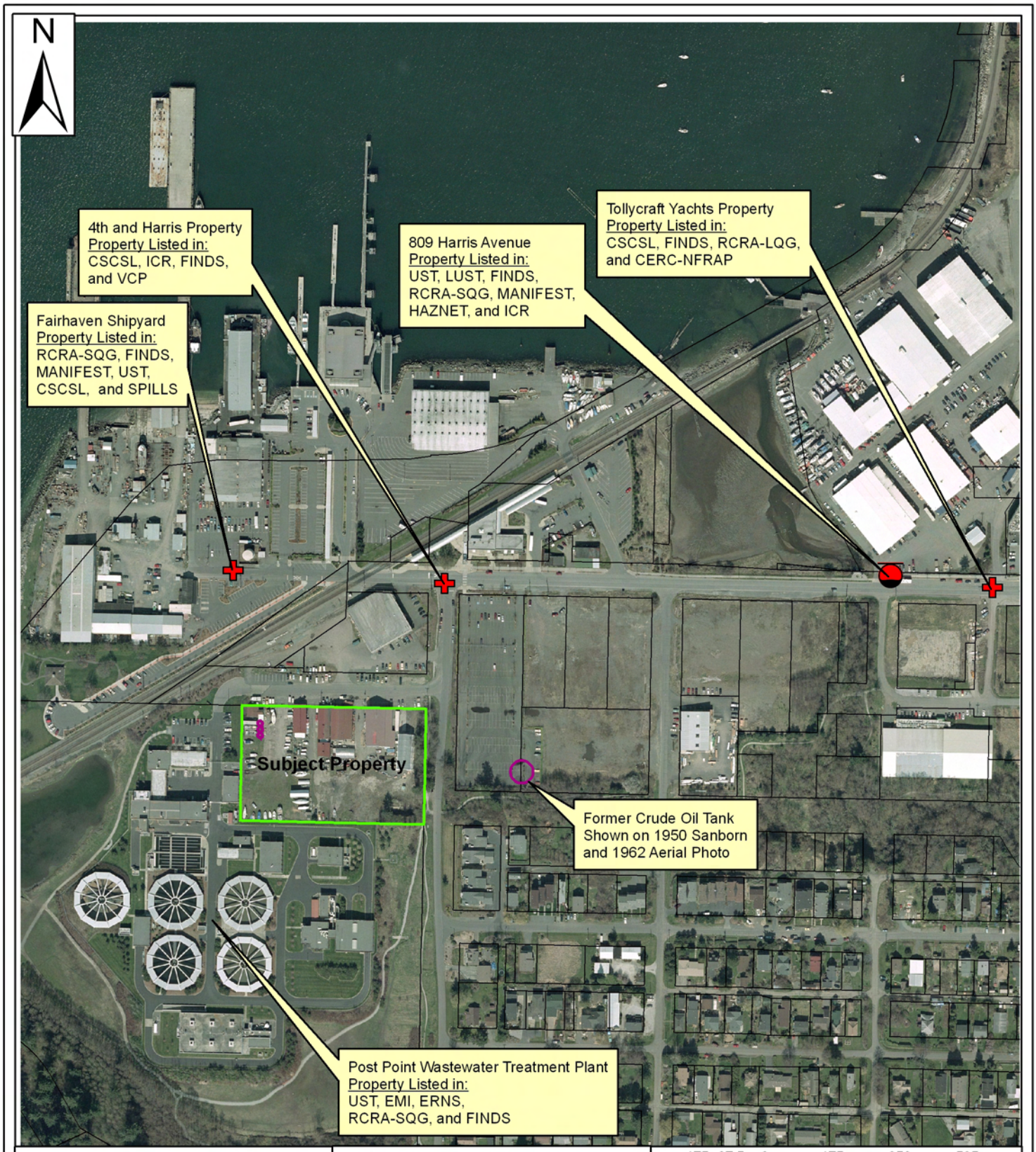
WES
Whatcom Environmental Services

Site Location Map

210 McKenzie

6/20/06

Figure 1



Legend

Historical Oil Tanks in Area | LUST Sites | CSCSL Sites

All data are approximate and should be used as relative location reference only.

175 87.5 0 175 350 525 Feet

1 inch equals 350 feet

Prepared for:

City of Bellingham

Prepared by:

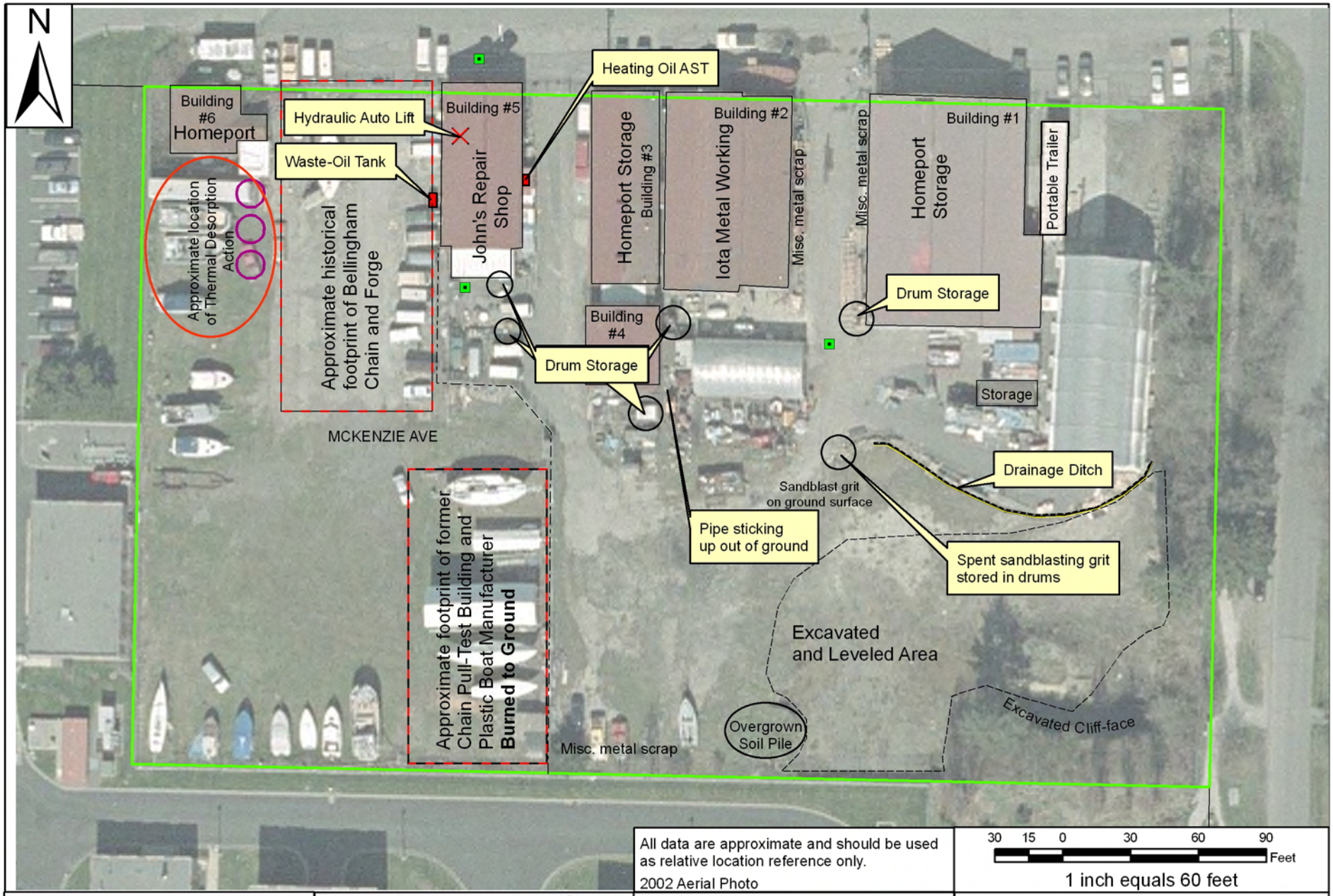
WES
Whatcom Environmental Services

Area Map

210 McKenzie

6/20/06

Figure 2



All data are approximate and should be used as relative location reference only.

2002 Aerial Photo

30 15 0 30 60 90 Feet

1 inch equals 60 feet

Legend

- Site Stormwater Catch Basins
- Fenceline
- Historical Fuel Oil Tanks
- Property Boundary
- Property_Structures

Prepared for:

City of Bellingham

Prepared by:

WES Whatcom Environmental Services

Site Map

210 McKenzie

6/20/06

Figure 3

Photograph 1: A view looking northwest from the southeast corner of the property.

Photograph 2: A view looking west from near the center of the eastern edge of the property.

Photograph 3: A view looking south/southeast at the interior of the property. Note the spent sandblasting grit in the drums as well as on the ground surface.

Photograph 4: Located at the southwest corner of Building #1, these drums contain petroleum products and have been stored onsite for over 8 years.

Photograph 5: These drums are located behind Iota Metal Workings and contain scrap lead used as boat ballast. Note as well the gas cans and oil buckets.

Photograph 6: Located behind Building #4, these drums contain unknown products and have been stored onsite for over 8 years.

Photograph 7: A view of the AST located on the eastern exterior wall of John's Repair Shop. No evidence of spillage was observed around the tank.

Photograph 8: This waste oil tank is located west of John's Repair Shop and is accessed from a sink in the shop interior. Note the secondary containment system. No evidence of spillage was observed in relation to this tank.

Photograph 9: This hydraulic lift is located in John's Repair Shop. Note the sawdust used as an absorbent to contain leaking hydraulic oil.

Photograph 10: A view looking north from the center of the property. Note the concrete footprint of the former Chain and Forge building (top center). Historic tanks would have been located below the arrow.

Photograph 11: A view looking south from the parking lot west of John's Repair Shop. Note the metal plates in the concrete. This concrete slab was once the floor of the Bellingham Chain and Forge building.

Photograph 12: This set of pipes is located in the concrete parking lot west of John's Repair Shop and was once associated with the Bellingham Chain and Forge building.

APPENDIX A

User Provided Information and Title Records

Whatcom Environmental Services
Phase I ESA User Information

Property Name: Homeport Properties Inc. Address: 210 McKenzie Ave

Owner Name: George Sahlin Owner Phone: -

Occupant Name: Homeport Properties Occupant Phone: -

Tax Parcel Number(s): 370202 452038 0000 Property Zoning: Industrial

Has a chain of title been ordered? If so, when will it be available? Transmitted by Patty Fernandez.

Has a task order been completed? Yes

Is the user aware of any environmental liens or use limitations on the property?
None that the city is aware of.

Is the user aware of any possible recognized environmental conditions at the property?
Yes, in the early 90's a clean-up operation was observed by several City employees. UST removal and soil cleaning in the SW area of the property.

Is the user aware of any issues at the property that may reduce the value of the property?
None.

Other comments on the subject property?
Property is intended to remain zoned at Industrial and be used for the expansion of Bellingham's Wastewater Treatment Facility.

Other comments on the scope of the ESA? None.

949811

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that BELLINGHAM CHAIN & FORGE COMPANY, a Washington corporation, in consideration of Ten ($10.00) Dollars to it paid by PORTLAND CHAIN MANUFACTURING CO., an Oregon corporation, does hereby grant, bargain, sell and convey to said Portland Chain Manufacturing Co., its successors and assigns, forever, the following real property, with the tenements, hereditaments and appurtenances thereunto belonging, or in anywise appertaining; and also all its estate, right, title and interest at law and equity, therein and thereto, situated in the County of Whatcom, and State of Washington, bounded and described as follows, to-wit:

A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East, W.M. described as follows, to-wit: Beginning at a point on the south line of McKenzie Avenue fifty feet West of the center line of Fourth Street, "Plat of Fairhaven Land Company's Second Addition to Fairhaven, Washington," now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32 in the Auditor's office of said county and state; thence West along the South line of McKenzie Avenue, 474.0 feet; thence Southerly parallel to Fourth Street, 300.0 feet; thence East parallel to McKenzie Avenue, 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street, 300.0 feet to the point of beginning.

TO HAVE AND TO HOLD the same to the said Portland Chain Manufacturing Co., its successors and assigns, forever. And the said Bellingham Chain & Forge Company does covenant with the said Portland Chain Manufacturing Co., its successors and assigns, forever, that it is lawfully seized in fee simple of the above described and granted premises, and has a valid right to convey same; that the said real property is free from all encumbrances, except liens and encumbrances now of record, any outstanding property taxes thereon, and any leases in existence with regard thereto as of the date of this Deed; and that it will, and its successors shall

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MEILA HANSEN CO. AUDITOR
Whatcom Co. Wash.
Recorded at request of
JUN 7 1963
Fee $ 3.00

warrant and defend the same unto the said Grantee, its successors and assigns, forever, against the lawful claims and demands of all persons whomsoever.

IN WITNESS WHEREOF, BELLINGHAM CHAIN & FORGE COMPANY, pursuant to a resolution of its Board of Directors, duly and legally adopted, has caused this Deed to be signed by its President this 29th day of MAY, 1963.

BELLINGHAM CHAIN & FORGE COMPANY

By _____ President

STATE OF ~~WASHINGTON~~ OREGON }
County of ~~Whatcom~~ Multnomah } ss.

On this 29th day of May, 1963, before me personally appeared W. A. DEMING, JR., to me known to be the President of the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument, and the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Douglas M Dempsey
Notary Public in and for the State of ~~Washington~~ Oregon, residing at Portland therein.
My Commission Expires: 12-13-63

NOTARY PUBLIC DOUGLAS M. THOMPSON STATE OF OREGON

FORM 108

973955

REAL ESTATE CONTRACT

THIS CONTRACT, made this 18th day of August, 1964 between PCM CO., an Oregon corporation formerly known as Portland Chain Manufacturing Co. hereinafter called the "seller" and FRANK H. WRIGHT, dba Wright Manufacturing Co. hereinafter called the "purchaser," and Effie Wright, his wife

WITNESSETH: The seller agrees to sell to the purchaser, and the purchaser agrees to purchase of the seller the following described real estate with the appurtenances, situate in Whatcom County, Washington: A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:

Beginning at a point on the South line of McKenzie Avenue, 50 feet West of the center line of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington", now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32, in the Auditor's office of said County and State; thence west along the South line of McKenzie Avenue 474.00 feet; thence southerly parallel to Fourth Street 300.00 feet; thence East parallel to McKenzie Avenue 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street 300.0 feet to the point of beginning.

~~Free of incumbrances, except:~~

Free of incumbrances except:

Encroachment of improvements onto abutting property as shown on attached sketch.

On the following terms and conditions: The purchase price is Twenty-Eight Thousand and no/100 ---------- ($ 28,000.00) dollars, of which ($) dollars has been paid, the receipt whereof is hereby acknowledged, and the purchaser agrees to pay the balance of said purchase price as follows:

Three Thousand ($3,000.00) Dollars to be paid at date of closing as provided in Seller's escrow instructions dated February 19, 1964, as amended, to Bellingham Title Co., and thereafter, consecutive monthly installments of not less than Two Hundred ($200.00) Dollars, including interest at the rate of 5% per annum on the unpaid principal balance, the first installment payable thirty (30) days after closing and the total purchase price plus accrued interest to be paid in full on or before the expiration of ten (10) years from the date of closing.

Seller to cancel existing insurance on premises as of date of closing.

Purchaser shall have the privilege of making additional payments, without penalty, in excess of the minimum consecutive monthly installments called for herein, provided, however, that such additional payments shall be applied to the most remote installment of the contract.

SEP--1-64 32174 — B ExcTax 2

PAID

HUGH CORT, TREAS.

The purchaser agrees: (1) to pay before delinquency all payments of whatsoever nature, required to be made upon or by virtue of said mortgage, if any; also all taxes and assessments which are above assumed by him, if any, and all which may, as between grantor and grantee, hereafter become a lien on the premises; and also all taxes which may hereafter be levied or imposed upon, or by reason of, this contract or the obligation thereby evidenced, or any part thereof; (2) to keep the buildings now and hereafter placed upon the premises unceasingly insured against loss or damage by fire, to the full insurable value thereof, in the name of the seller as owner, in an insurance company satisfactory to the seller for the benefit of the mortgagee, the seller, and the purchaser, as their interests may appear, until the purchase price is fully paid, and to deliver to seller the insurance policies, renewals, and premium receipts, except such as are required to be delivered to the mortgagee; (3) to keep the buildings and all other improvements upon the premises in good repair and not to permit waste; and (4) not to use the premises for any illegal purpose.

In the event that the purchaser shall fail to pay before delinquency any taxes or assessments or any payments required to be made on account of the mortgage, or to insure the premises as above provided, the seller may pay such taxes and assessments, make such payments, and effect such insurance, and the amounts paid therefor by him shall be deemed a part of the purchase price and become payable forthwith with interest at the rate of 10 per cent per annum until paid, without prejudice to other rights of seller by reason of such failure.

VOL 18 PAGE 46

Fulfilled
By #117023

973955

The purchaser agrees to assume all risk of damage to any improvements upon the premises, or of the taking of any part of the property for public use; that no such damage or taking shall constitute a failure of consideration, but in case of such damage or taking, all moneys received by the seller by reason thereof shall be applied as a payment on account of the purchase price of the property, less any sums of money which the seller may be required to expend in procuring such money, or at the election of the seller, to the rebuilding or restoration of such improvements.

The seller agrees, upon receiving full payment of the purchase price and interest in the manner above specified, to execute and deliver to purchaser a WARRANTY deed to the property, excepting such part thereof which may hereafter be condemned, if any, free of incumbrances except those above mentioned, and any that may accrue hereafter through any person other than the seller.

The seller has delivered, or within ten days herefrom will procure and deliver, to the purchaser, a title policy in usual form issued by the Puget Sound Title Insurance Company, insuring the purchaser to the full amount of said purchase price against loss or damage occasioned by reason of defect in, or incumbrance against, seller's title to the premises, not assumed by the purchaser, or as to which the conveyance hereunder is not to be subject.

The parties agree: (1) to execute all necessary instruments for the extension of payment or renewal of said mortgage during the period prior to the delivery of said deed, or the termination of purchaser's rights by virtue of the provisions hereof; provided the seller shall not be obligated thereby to assume any personal obligation or to execute any mortgage providing for a deficiency judgment against the seller, or securing a principal indebtedness in excess of that now unpaid on the above mentioned mortgage or bearing an interest rate of more than two per cent greater than that of the original mortgage indebtedness; (2) that the purchaser has made full inspection of the real estate and that no promise, agreement or representation respecting the condition of any building or improvement thereon, or relating to the alteration or repair thereof, or the placing of additional improvements thereon, shall be binding unless the promise, agreement or representation be in writing and made a part of this contract; (3) that the purchaser shall have possession of the real estate on and be entitled to retain possession so long as purchaser is not in default in carrying out the terms hereof; and (4) that, upon default, forfeiture may be declared by notice sent by registered mail to the address of the purchaser, or his assigns, last known to the seller.

Time is of the essence hereof, and in the event the purchaser shall fail to comply with or perform any condition or agreement hereof promptly at the time and in the manner herein required, the seller may elect to declare all of the purchaser's rights hereunder terminated, and upon his doing so, all payments made by the purchaser hereunder and all improvements placed upon the premises shall be forfeited to the seller as liquidated damages, and the seller shall have the right to re-enter and take possession of the property; and if the seller within six months after such forfeiture shall commence an action to procure an adjudication of the termination of the purchaser's rights hereunder, the purchaser agrees to pay the expense of searching the title for the purpose of such action, together with all costs and a reasonable attorney's fee.

In Witness Whereof the parties have signed and sealed this contract the day and year first above written.

PCM CO. (Seal)

By (Seal)

By President (Seal)

FRANK H. WRIGHT Assistant Secretary (Seal)

Frank H Wright Effie Wright

STATE OF WASHINGTON, OREGON
County of Multnomah } ss.

I, the undersigned, a notary public in and for the state of Washington, hereby certify that on this day of , personally appeared before me WILLIAM A. DEMING, JR. and J. [illegible]TH, the President and the Assistant Secretary of PCM CO. to me known to be the individual s described in and who executed the foregoing instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal the day and year last above written.

Douglas D White

Notary Public in and for the state of Washington, Oregon residing at

My commission expires 10/6/64

PUGET SOUND TITLE INSURANCE COMPANY

THIS SPACE RESERVED FOR RECORDER'S USE:

Filed for Record at Request of

Name

Address

State

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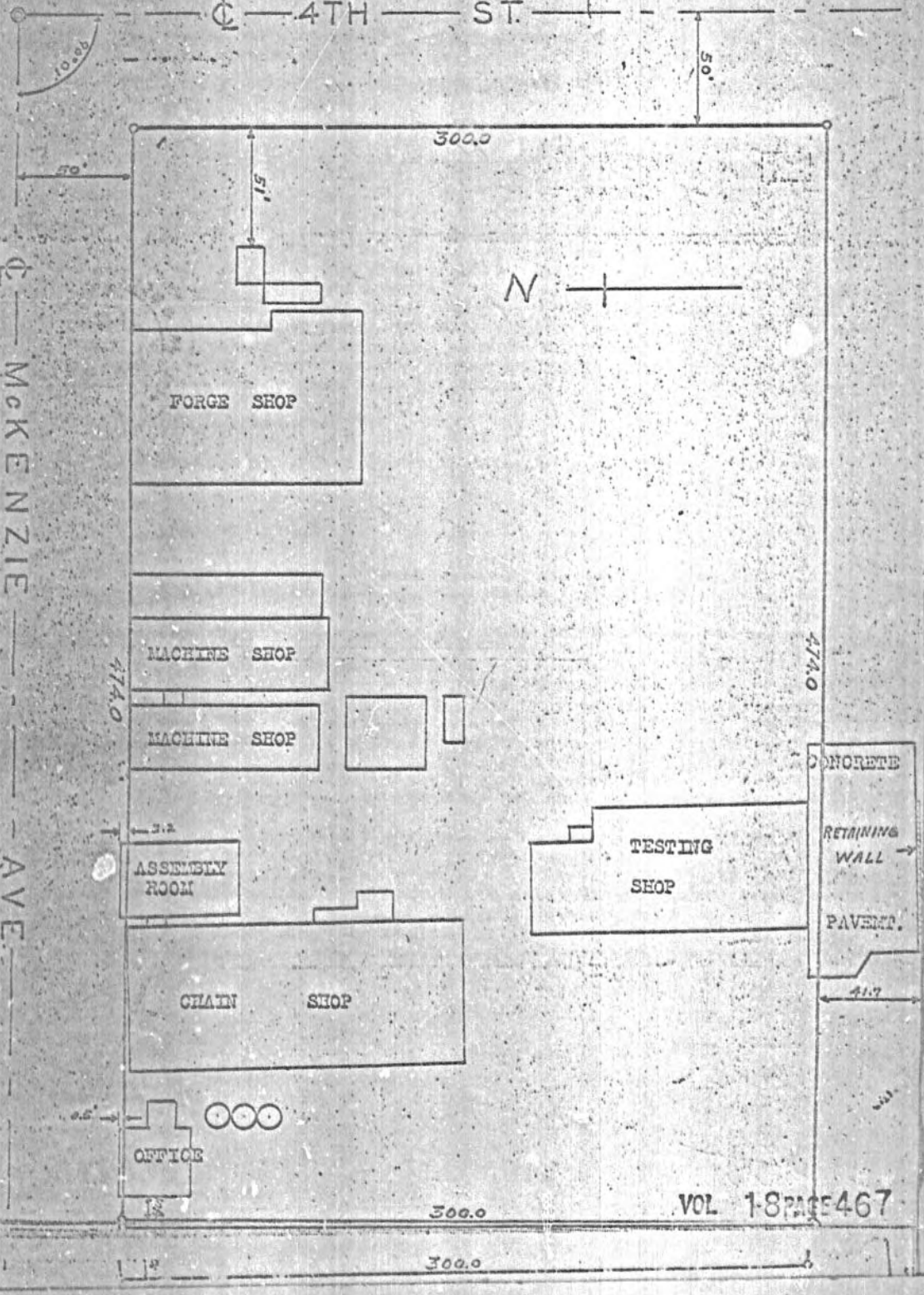
BELLINGHAM CHAIN AND FORGE CO. 973955 56168
BELLINGHAM, WASH.



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973555

I, Fred W. McMinn, Professional Land Surveyor, do hereby certify that a survey was made by me on the 17th day of July, A.D. 1952 of a tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East, W.M. described as follows, to-wit: Beginning at a point on the south line of McKenzie Avenue fifty feet West of the center line of Fourth Street, "Plat of Fairhaven Land Company's Second Addition to Fairhaven, Washington," now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 52 in the Auditor's office of said county and state; thence West along the South line of McKenzie Avenue, 474.0 feet; thence Southerly parallel to Fourth Street, 300.0 feet; thence East parallel to McKenzie Avenue, 474.0 feet to the West line of Fourth Street; ~~thence Northerly along the West line of Fourth Street~~; thence Northerly along the West line of Fourth Street, 300.0 feet to the point of beginning.

That the said survey and this map thereof shows true and correct dimensions of said tract and its position to street lines;

That the walls and projections of the buildings on the said tract do not encroach upon the streets nor upon the adjoining property except that the Office and the Assembly Room encroach upon McKenzie Avenue as shown on this map and except that the concrete pavement and the concrete retaining wall at the rear of the Testing Shop encroach on the adjoining property as shown on this map;

And that the walls and projections of the buildings in the adjoining property do not encroach upon the said tract.

Scale 1" = 50'
Date July 18, 1952

Fred W. McMinn
Professional Land Surveyor
Bellingham, Washington

Received for record at 12:45 P.M. SEP 1 1954
at request of BELLINGHAM TITLE CO.
A. HANSEN, CO. AUDITOR Whatcom Co. Wash.

VOL. 18 PAGE 468

WARRANTY DEED

996903

THE GRANTOR, PCM CO., an Oregon corporation, formerly known as Portland Chain Manufacturing Co., for and in consideration of Ten Dollars ($10.00) in hand paid, conveys and warrants to WEBSTER MANUFACTURING, INC., GRANTEE, the following described real estate, situated in the County of Whatcom, State of Washington:

A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:

Beginning at a point on the South line of McKenzie Avenue, 50 feet West of the center line of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington", now a part of the consolidated city of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32, in the Auditor's office of said County and State; thence west along the South line of McKenzie Avenue 474.00 feet; thence southerly parallel to Fourth Street 300.00 feet; thence East parallel to McKenzie Avenue 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street 300.0 feet to the point of beginning.

EXCEPT: Encroachment of improvements onto abutting property as shown on sketch attached to contract between PCM Co. and Frank H. Wright, doing business as Wright Manufacturing Co. dated August 18, 1964, and the aforesaid contract dated August 18, 1964 between PCM Co. and Frank H. Wright regarding purchase by Frank H. Wright of the above-described real property.

Dated this 1st day of Oct., 1965.

PCM CO.

By _____
W. A. Deming, Jr., President

By _____
Douglas M. Thompson, Secretary

(corporate seal)

STATE OF OREGON)
) ss.
County of Multnomah)

NOV-5-65 0 2 4 6 —Bexlax 0.00

On this 1st day of Oct., 1965, before me HUGH CORY, TEXAS personally appeared W. A. DEMING, JR. and DOUGLAS M. THOMPSON, to me known to be respectively the President and Secretary of the

VOL 36 PAGE 573

996902

corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument and the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Douglas J. White

Notary Public in and for the State of Oregon, residing at Portland therein.

My commission expires: 10-6-68

DOUGLAS J. WHITE NOTARY PUBLIC STATE OF OREGON
(Notarial Seal)

996902

CONSIDERATION LESS THAN $100,
NO REVENUE STAMPS REQUIRED

Received for record at 11:03A M. NOV 5 - 1965
at request of Carey Briggs etux
WELLA HANSEN, CO. AUDITOR Whatcom Co., Wash

VOL. 36 PAGE 574

RECORDED
SAFECO TITLE INS. CO.
8:30 A. M.

SEP 10 1974

VOL. 232 PAGE 303
REQUEST OF
WILLA HANSEN, AUDITOR
WHATCOM COUNTY, WASH.
DEPUTY

1171023

WARRANTY DEED

THE GRANTOR, WEBSTER INDUSTRIES, INC., a Delaware Corporation, successor in interest by Agreement of Merger to WEBSTER MANUFACTURING, INC., Who claims title to the real estate described herein by virtue of deed recorded in Volume 36, Page 573 of the records of Whatcom County, Washington, for and in consideration of Ten 00414 Dollars ($10.00) and other considerations in hand paid, conveys and warrants to FRANK H. WRIGHT, dba. WRIGHT MANUFACTURING CO., Grantee, the following described real estate, situated in the County of Whatcom, State of Washington:

A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:

Beginning at a point on the South line of McKenzie Avenue, 50 feet West of the center line of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington", now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, Page 32, in the Auditor's office of said County and State; thence west along the South line of McKenzie Avenue 474.00 feet; thence Southerly parallel to Fourth Street 300.00 feet; thence East parallel to McKenzie Avenue 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street 300.0 feet to the point of beginning.

EXCEPT: Encroachment of improvements onto abutting property as shown on sketch attached to contract between PCM Co. and Frank H. Wright, doing business as Wright Manufacturing Co, dated August 18, 1964, and the aforesaid contract dated August 18, 1964, between PCM Co. and Frank H. Wright regarding purchase by Frank H. Wright of the above described real property.

HUGH CORY
PAID
AMT. $
REAL ESTATE
EXCISE TAX
TREASURER WHATCOM COUNTY, WASHINGTON

This deed is executed and delivered in accordance with the terms and provisions of a certain real estate contract dated August 18, 1964, by and between PCM Co., an Oregon Corporation as seller and the Grantee herein as purchaser.

Dated this 16th day of August 1974.

Expires pd 9-1-64 # 32174
Release # 92696 11-5-65

WEBSTER INDUSTRIES, INC.

By J. B. Nordholt, Jr., President

By Charles D. Hering, Jr., Secretary

In the presence of:

VOL 232 PAGE 303

1171023

STATE OF OHIO

COUNTY OF SENECA, SS.:

On this 16th day of August, 1974, before me, a notary public in and for said County and State, personally appeared J. B. Nordholt, Jr. and Charles D. Hering, Jr., to me known to be respectively the President and Secretary of the Corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument and the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Michael E. Behm
Notary Public

MICHAEL E. BEHM
Notary Public, Seneca County, Ohio
My Commission Expires June 1, 1979

This instrument prepared by
the Law Firm of Tomb & Hering
Tiffin, Ohio.

RECEIVED FOR RECORD AT 8:30 A.M. 9-10-74
AT REQUEST OF SENECA TITLE INSURANCE CO.
WELLA HANSEN, CO. AUDITOR WHATCOM CO. WASH.

VOL 232 PAGE 304

SAFECO

REAL ESTATE CONTRACT
(FORM A-1964)

1242561 02736

THIS CONTRACT, made and entered into this 16th day of February, 1977

between Frank H. Wright, as his separate property, d/b/a Wright Manufacturing Company

hereinafter called the "seller," and
Bellingham Stevedoring Company
hereinafter called the "purchaser,"

WITNESSETH: That the seller agrees to sell to the purchaser and the purchaser agrees to purchase from the seller the following described real estate, with the appurtenances, in Whatcom County, State of Washington:

A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:
Beginning at a point on the South line of McKenzie Avenue, 50 feet West of the center line of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington," now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32, in the Auditor's office of said county and state; thence West along the South line of McKenzie Avenue, 474.0 feet; thence Southerly parallel to Fourth Street, 300.0 feet; thence East parallel to McKenzie Avenue, 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street, 300.0 feet to the point of beginning, situate in Whatcom County, Washington.
EXCEPTION: Bridge cranes, electric hoists and extra lights installed by seller in building now occupied by seller.

3 1 3 3 3 11

The terms and conditions of this contract are as follows: The purchase price is

Two Hundred Seventy Three Thousand---------and---------no/100s 273,000.00 Dollars, of which

Seventy One Thousand----------and---------no/100 ($ 71,000.00) Dollars have been paid, the receipt whereof is hereby acknowledged, and the balance of said purchase price shall be paid as follows:

Two Thousand----------and---------no/100 ($ 2,000.00) Dollars,

or more at purchaser's option, on or before the 16th day of March , 1977

and Two Thousand----------and---------no/100 ($ 2,000.00) Dollars,

or more at purchaser's option, on or before the 16th day of each succeeding calendar month until the balance of said purchase price shall have been fully paid. The purchaser further agrees to pay interest on the diminishing balance of said purchase price at the rate of Nine (9) per cent per annum from the 16th day of February , 1977 which interest shall be deducted from each installment payment and the balance of each payment applied in reduction of principal.

All payments to be made hereunder shall be made at
or at such other place as the seller may direct in writing

(1) The purchaser further agrees that he will pay no more than $9535.00 on the principal balance of $202,000.00, as set out above, during the year of 1977(2) The purchaser further agrees that during the second year of this contract, he will pay, in addition to the monthly payments as set out above, an amount necessary to reduce the principal balance to, but no less than $120,000.00, This amount will be paid on or before December 31, 1978. (3) It is further understood and agreed that on February , 1980 the unpaid principal balance, together with interest will be paid in full. (4) It is the intent of the seller to receive no more than 29% of the selling price during the first year of this contract; approximately 29% of the selling price during the second year of this contract and the balance of the selling price during the third year of this contract.

As referred to in this contract, "date of closing" shall be Feb. 16, 1977

(1) The purchaser assumes and agrees to pay before delinquency all taxes and assessments that may as between grantor and grantee hereafter become a lien on said real estate; and if by the terms of this contract the purchaser has assumed payment of any mortgage, contract or other encumbrance, or has assumed payment of or agreed to purchase subject to, any taxes or assessments now a lien on said real estate, the purchaser agrees to pay the same before delinquency.

(2) The purchaser agrees, until the purchase price is fully paid, to keep the buildings now and hereafter placed on said real estate insured to the actual cash value thereof against loss or damage by both fire and windstorm in a company acceptable to the seller and for the seller's benefit, as his interest may appear, and to pay all premiums therefor and to deliver all policies and renewals thereof to the seller.

(3) The purchaser agrees that full inspection of said real estate has been made and that neither the seller nor his assigns shall be held to any covenant respecting the condition of any improvements thereon nor shall the purchaser or seller or the assigns of either be held to any covenant or agreement for alterations, improvements or repairs unless the covenant or agreement relied on is contained herein or is in writing and attached to and made a part of this contract.

(4) The purchaser assumes all hazards of damage to or destruction of any improvements now on said real estate or hereafter placed thereon, and of the taking of said real estate or any part thereof for public use; and agrees that no such damage, destruction or taking shall constitute a failure of consideration. In case any part of said real estate is taken for public use, the portion of the condemnation award remaining after payment of reasonable expenses of procuring the same shall be paid to the seller and applied as payment on the purchase price herein unless the seller elects to allow the purchaser to apply all or a portion of such condemnation award to the rebuilding or restoration of any improvements damaged by such taking. In case of damage or destruction from a peril insured against, the proceeds of such insurance remaining after payment of the reasonable expense of procuring the same shall be devoted to the restoration or rebuilding of such improvements within a reasonable time, unless purchaser elects that said proceeds shall be paid to the seller for application on the purchase price herein.

(5) The seller has delivered, or agrees to deliver within 15 days of the date of closing, a purchaser's policy of title insurance in standard form, or a commitment therefor, issued by SAFECO Title Insurance Company, insuring the purchaser to the full amount of said purchase price against loss or damage by reason of defect in seller's title to said real estate as of the date of closing and containing no exceptions other than the following:

a. Printed general exceptions appearing in said policy form;

b. Liens or encumbrances which by the terms of this contract the purchaser is to assume, or as to which the conveyance hereunder is to be made subject; and

c. Any existing contract or contracts under which seller is purchasing said real estate, and any mortgage or other obligation, which seller by this contract agrees to pay, none of which for the purpose of this paragraph (5) shall be deemed defects in seller's title.

(6) If seller's title to said real estate is subject to an existing contract or contracts under which seller is purchasing said real estate, or any mortgage or other obligation which seller is to pay, seller agrees to make such payments in accordance with the terms thereof, and upon default, the purchaser shall have the right to make any payments necessary to remove the default, and any payments so made shall be applied to the payments next falling due the seller under this contract.

TL-46 R2 8/75

VOL 322 PAGE 553

1242561

(7) The seller agrees, upon receiving full payment of the purchase price and interest in the manner above specified, to execute and deliver to purchaser a statutory warranty Fulfillment deed to said real estate, excepting any part thereof hereafter taken for public use, free of encumbrances except any that may attach after date of closing through any person other than the seller, and subject to the following:

(8) Unless a different date is provided for herein, the purchaser shall be entitled to possession of said real estate on date of closing and to retain possession so long as purchaser is not in default hereunder. The purchaser covenants to keep the buildings and other improvements on said real estate in good repair and not to permit waste and not to use, or permit the use of, the real estate for any illegal purpose. The purchaser covenants to pay all service, installation or construction charges for water, sewer, electricity, garbage or other utility services furnished to said real estate after the date purchaser is entitled to possession.

(9) In case the purchaser fails to make any payment herein provided or to maintain insurance, as herein required, the seller may make such payment or effect such insurance, and any amounts so paid by the seller, together with interest at the rate of 10% per annum thereon from date of payment until repaid, shall be repayable by purchaser on seller's demand, all without prejudice to any other right the seller might have by reason of such default.

(10) Time is of the essence of this contract, and it is agreed that in case the purchaser shall fail to comply with or perform any condition or agreement hereof or to make any payment required hereunder promptly at the time and in the manner herein required, the seller may elect to declare all the purchaser's rights hereunder terminated, and upon his doing so, all payments made by the purchaser hereunder and all improvements placed upon the real estate shall be forfeited to the seller as liquidated damages, and the seller shall have right to re-enter and take possession of the real estate; and no waiver by the seller of any default on the part of the purchaser shall be construed as a waiver of any subsequent default.

Service upon purchaser of all demands, notices or other papers with respect to forfeiture and termination of purchaser's rights may be made by United States Mail, postage pre-paid, return receipt requested, directed to the purchaser to his address last known to the seller.

(11) Upon seller's election to bring suit to enforce any covenant of this contract, including suit to collect any payment required hereunder, the purchaser agrees to pay a reasonable sum as attorney's fees and all costs and expenses in connection with such suit, which sums shall be included in any judgment or decree entered in such suit.

If the seller shall bring suit to procure an adjudication of the termination of the purchaser's rights hereunder, and judgment is so entered, the purchaser agrees to pay a reasonable sum as attorney's fees and all costs and expenses in connection with such suit, and also the reasonable cost of searching records to determine the condition of title at the date such suit is commenced, which sums shall be included in any judgment or decree entered in such suit.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date first written above.

Frank H. Wright (SEAL)
(Frank H. Wright)

C. Roger Sahlin (SEAL)
(C. Roger Sahlin, Vice-President)

(SEAL)

(SEAL)

STATE OF WASHINGTON,
County of Whatcom } ss.

On this day personally appeared before me Frank H. Wright
to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 15th day of February, 1977

Hal R Ausa
Notary Public in and for the State of Washington
residing at Bellingham

SAFECO TITLE INSURANCE COMPANY

SAFECO

Filed for Record at Request of

THIS SPACE RESERVED FOR RECORDER'S USE

SAFECO TITLE INSURANCE CO.
FEB 16 9 11 AM '77
VOL 322 PAGE 553
DR
RS

1242561

NAME Bellingham Stevedoring Company

ADDRESS 802 North State Street

CITY AND STATE Bellingham, Wash. 98225

SAFECO

WARRANTY FULFILLMENT DEED

SAFECO TITLE INSURANCE COMPANY

(THIS SPACE RESERVED FOR RECORDER'S USE)

Dave Nichols
MAR 17 2 16 PM '80
VOL. 524 PAGE 576
RECORDS OF
JOHN OGDEN, AUDITOR
WHATCOM COUNTY, WASH.
DEPUTY

05300

1352261

Filed for Record at Request of

NAME Bellingham Stevedoring Company

ADDRESS Dave Nichols

CITY AND STATE

1352261

THE GRANTOR Frank H. Wright, as his separate property, d/b/a Wright Manufacturing Co.

for and in consideration of Two Hundred Seventy Three Thousand and no/100 Dollars ($273,000.00)

in hand paid, conveys and warrants to Bellingham Stevedoring Company

the following described real estate, situated in the County of Whatcom, State of Washington: A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:

Beginning at a point on the South line of Mc Kenzie Avenue, 50 feet West of the centerline of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington," now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32, in the Auditor's office of said county and state' thence West along the South line of Mc Kenzie Avenue, 474.0 feet; thence Southerly parallel to Fourth Street 300.0 feet; thence East parallel to Mc Kenzie Avenue, 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street, 300.0 feet to the point of beginning, situate in Whatcom County, Washington.

EXCEPTION: Bridge cranes, electric hoists & extra lights installed by seller in building now occupied by seller.

This deed is given in fulfillment of that certain real estate contract between the parties hereto, dated February 14, 1977, and conditioned for the conveyance of the above described property, and the covenants of warranty herein contained shall not apply to any title, interest or encumbrance arising by, through or under the purchaser in said contract, and shall not apply to any taxes, assessments or other charges levied, assessed or becoming due subsequent to the date of said contract.

Dated February 14, 19 77

Frank H. Wright
(Individual)

(Individual)

STATE OF WASHINGTON
COUNTY OF Whatcom } ss.

On this day personally appeared before me Frank H. Wright

to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 14th day of February, 19 77

Hal R Anderson
Notary Public in and for the State of Washington, residing at Bellingham.

TL-142 R3 10/75

VOL 524 PAGE 576

2001102650
Page: 1 of 2
11/27/2000 12:31 PM
DEED $9.00
Whatcom County, WA
Request of: CHICAGO TITLE INSURANCE

After Recording Return to:

HOMEPORT PROPERTIES, INC.
1801 Roeder Avenue, #156
Bellingham, WA 98225

CHICAGO TITLE INSURANCE CO.

STATUTORY WARRANTY DEED

Grantor:	BELLINGHAM STEVEDORING COMPANY
Grantee:	HOMEPORT PROPERTIES, INC.
Legal Description (Abbreviated):	PTN GOVT. LOT 1, SECTION 2, TWP 37 N. R 2 E.W.M, (Additional legal on Page 1 below)
Assessor's Tax Parcel ID#(s):	Assessor's Parcel No. 370202 452038 0000
Reference Number of Related Documents:	N/A

The Grantor, **BELLINGHAM STEVEDORING COMPANY,** for and in consideration of the transfer of real property from one wholly owned subsidiary to another wholly owned subsidiary, the sufficiency of which is hereby acknowledged, conveys and warrants to **HOMEPORT PROPERTIES, INC.,** the following described real estate, situated in the County of Whatcom, State of Washington:

A tract of land in Government Lot 1, Section 2, Township 37 North, Range 2 East of W.M., described as follows, to-wit:

Beginning at a point on the South line of McKenzie Avenue, 50 feet West of the centerline of Fourth Street, "Plat of the Fairhaven Land Company's Second Addition to Fairhaven, Washington," now a part of the consolidated City of Bellingham, Whatcom County, Washington, as per the map thereof, recorded in Book 2 of Plats, page 32, in the Auditor's office of said county and state; thence West along the South line of Mackenzie Avenue, 474.0 feet; thence Southerly parallel to Fourth Street 300.0 feet; thence East parallel to McKenzie Avenue, 474.0 feet to the West line of Fourth Street; thence Northerly along the West line of Fourth Street, 300.0 feet to the point of beginning, situate in Whatcom County, Washington.

EXCEPTION: Bridge cranes, electric hoists & extra lights installed by seller in building occupied by seller.

221158 55326 11/27/2000 2.00 ***

Dated this 20th day of November, 2000.

Grantor: _____
BELLINGHAM STEVEDORING COMPANY
By C. Roger Sahlin
Its: President

STATE OF WASHINGTON)
) ss.
County of Whatcom)

On this day personally appeared before me C. ROGER SAHLIN, to me known to be the President of BELLINGHAM STEVEDORING COMPANY, the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute the said instrument and that the seal affixed (if any) is the corporate seal of said corporation.

GIVEN under my hand and official seal this 20th day of November, 2000.

Sharon K. Yocum
NOTARY PUBLIC in and for the State of Washington, Residing at Bellingham
My Commission Expires _____

SHARON K. YOCUM NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 11-12-03

2001102650
Page: 2 of 2
11/27/2000 12:31 PM
DEED $9.00
Whatcom County, WA
Request of: CHICAGO TITLE INSURANCE

APPENDIX B

Regulatory Profile

The EDR Radius Map
with GeoCheck®

Homeport Properties, Inc
210 McKenzie Ave
Bellingham, WA 98225

Inquiry Number: 1696255.2s

June 14, 2006

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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GEOCHECK ADDENDUM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

210 MCKENZIE AVE
BELLINGHAM, WA 98225

COORDINATES

Latitude (North):	48.718800 - 48° 43' 7.7''
Longitude (West):	122.512200 - 122° 30' 43.9''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	535880.4
UTM Y (Meters):	5396092.5
Elevation:	26 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	48122-F5 ELIZA ISLAND, WA
Most Recent Revision:	1995
East Map:	48122-F4 BELLINGHAM SOUTH, WA
Most Recent Revision:	1995

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
Delisted NPL ..... National Priority List Deletions
NPL RECOVERY ..... Federal Superfund Liens
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS ..... Corrective Action Report

EXECUTIVE SUMMARY

RCRA-TSDF Resource Conservation and Recovery Act Information
RCRA-LQG Resource Conservation and Recovery Act Information
ERNS Emergency Response Notification System
HMIRS Hazardous Materials Information Reporting System
US ENG CONTROLS Engineering Controls Sites List
US INST CONTROL Sites with Institutional Controls
DOD Department of Defense Sites
FUDS Formerly Used Defense Sites
US BROWNFIELDS A Listing of Brownfields Sites
CONSENT Superfund (CERCLA) Consent Decrees
ROD Records Of Decision
UMTRA Uranium Mill Tailings Sites
ODI Open Dump Inventory
TRIS Toxic Chemical Release Inventory System
TSCA Toxic Substances Control Act
FTTS FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS Section 7 Tracking Systems
ICIS Integrated Compliance Information System
PADS PCB Activity Database System
MLTS Material Licensing Tracking System
MINES Mines Master Index File
FINDS Facility Index System/Facility Registry System
RAATS RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

HSL Hazardous Sites List
CSCSL NFA Confirmed & Contaminated Sites - No Further Action
SWF/LF Solid Waste Facility Database
SWTIRE Solid Waste Tire Facilities
AST Aboveground Storage Tank Locations
SPILLS Reported Spills
INST CONTROL Institutional Control Site List
DRYCLEANERS Drycleaner List
CDL Clandestine Drug Lab Contaminated Site List
EMI Washington Emissions Data System
INACTIVE DRYCLEANERS Inactive Drycleaners

TRIBAL RECORDS

INDIAN RESERV Indian Reservations
INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

EDR Historical Auto Stations EDR Proprietary Historic Gas Stations
EDR Historical Cleaners EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CERCLIS-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/01/2006 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOLLYCRAFT YACHTS CORPORATION	***9TH STREET & HARRIS AVE***	***1/4 - 1/2 ENE***	***23***	***54***

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/09/2006 has revealed that there are 8 RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
POST POINT WASTEWATER TREATMEN	***200 MCKENZIE STREET***	***0 - 1/8***	***A5***	***24***
FAIRHAVEN SHIPYARD	***201 HARRIS AVENUE***	***0 - 1/8 N***	***B6***	***24***
PUGLIA ENGINEERINGINC DBA FAIR	***201 HARRIS AVE BLDG A***	***0 - 1/8 N***	***B7***	***30***
ARROWAC FISHERIES INC	***207 HARRIS AVE***	***0 - 1/8 N***	***B10***	***36***
ALASKA MARINE HIGHWAY SYSTEM	***365 HARRIS AVE***	***0 - 1/8 N***	***C13***	***41***
UNICRAFT MARINE PRODUCTS INC	***801 HARRIS AVE BLDG 2***	***1/8 - 1/4 ENE***	***D17***	***48***
PADDEN CREEK MARINE INC	***809 HARRIS AVE BLDGS 7***	***1/8 - 1/4 ENE***	***D19***	***50***
AQUASTAR USA CORP	809 HARRIS AVE	1/8 - 1/4 ENE	D21	54

EXECUTIVE SUMMARY

STATE AND LOCAL RECORDS

CSCSL: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Ecology's Confirmed & Suspected Contaminated Sites List.

A review of the CSCSL list, as provided by EDR, and dated 03/08/2006 has revealed that there are 4 CSCSL sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOLLYCRAFT YACHTS CORPORATION	***9TH STREET & HARRIS AVE***	***1/4 - 1/2 ENE***	***23***	***54***
BOULEVARD PARK	BAYVIEW DR	1/2 - 1 NNE	32	66
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
BELLINGHAM PORT HARRIS AVE SHI	***201 HARRIS AVE***	***0 - 1/8 N***	***B9***	***32***
FOURTH AND HARRIS PROPERTY/POR	***4TH / HARRIS***	***0 - 1/8 N***	***C14***	***43***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Ecology's Leaking Underground Storage Tanks Site List.

A review of the LUST list, as provided by EDR, and dated 03/08/2006 has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
YORKY'S GROCERY III	***1501 12TH ST***	***1/4 - 1/2 E***	***E24***	***59***
FRANK MULJAT	***1601 12TH STREET***	***1/4 - 1/2 E***	***F27***	***61***
STARVIN SAMS #16	***1602 12TH ST***	***1/4 - 1/2 E***	***F29***	***63***
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
EX-MURRAY CRIS CRAFT BOAT YARD	809 HARRIS AVE	1/8 - 1/4 ENE	D20	53

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Ecology's Statewide UST Site/Tank Report.

A review of the UST list, as provided by EDR, and dated 04/27/2006 has revealed that there are 7 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
POST POINT PLANT	***200 MACKENZIE AVENUE***	***0 - 1/8***	***A1***	***6***
MARITIME CONTRACTORS INC	201 HARRIS AVENUE	0 - 1/8 N	B8	32
ARROWAC FISHERIES INC	***207 HARRIS AVE***	***0 - 1/8 N***	***B10***	***36***
ARROWAC FISHERIES	207 HARRIS	0 - 1/8 N	B11	39
SOUTH TERMINAL	215 HARRIS	0 - 1/8 N	B12	40
GLACIER DISTRIBUTING COMPANY,	300 HARRIS AVENUE - P.O	0 - 1/8 NE	16	47
EX-MURRAY CRIS CRAFT BOAT YARD	809 HARRIS AVE	1/8 - 1/4 ENE	D18	48

EXECUTIVE SUMMARY

MANIFEST: Hazardous waste manifest information.

A review of the MANIFEST list, as provided by EDR, and dated 12/31/2004 has revealed that there are 5 MANIFEST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
FAIRHAVEN SHIPYARD	***201 HARRIS AVENUE***	***0 - 1/8 N***	***B6***	***24***
PUGLIA ENGINEERINGINC DBA FAIR	***201 HARRIS AVE BLDG A***	***0 - 1/8 N***	***B7***	***30***
ARROWAC FISHERIES INC	***207 HARRIS AVE***	***0 - 1/8 N***	***B10***	***36***
ALASKA MARINE HIGHWAY SYSTEM	***365 HARRIS AVE***	***0 - 1/8 N***	***C13***	***41***
PADDEN CREEK MARINE INC	***809 HARRIS AVE BLDGS 7***	***1/8 - 1/4 ENE***	***D19***	***50***

VCP: Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

A review of the VCP list, as provided by EDR, and dated 03/08/2006 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
PORT OF BELLINGHAM 4TH & HARRI	***4TH & HARRIS***	***0 - 1/8 N***	***C15***	***47***

ICR: These are remedial action reports Ecology has received from either the owner or operator of the site. These actions have been conducted without department oversight or approval and are not under an order or decree.

A review of the ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there are 6 ICR sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
YORKY'S MINI-MART	12TH / LARABEE AVE.	1/4 - 1/2 E	E25	60
STARVIN SAM'S #16/MULJAT PROPE	1601 12TH ST.	1/4 - 1/2 E	F26	60
STARVIN SAM'S #16/MULJAT PROPE	1602 12TH ST.	1/4 - 1/2 E	F28	62
TEXACO	1215 12TH ST.	1/4 - 1/2 ENE	30	65

Lower Elevation	Address	Dist / Dir	Map ID	Page
FOURTH AND HARRIS PROPERTY/POR	***4TH / HARRIS***	***0 - 1/8 N***	***C14***	***43***
BELLINGHAM PORT (FORMER CHRIS	809 HARRIS AVE.	1/8 - 1/4 ENE	D22	54

EDR PROPRIETARY RECORDS

EDR Manufactured Gas Plants: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the Manufactured Gas Plants list, as provided by EDR, has revealed that there is 1

EXECUTIVE SUMMARY

Manufactured Gas Plants site within approximately 1 mile of the target property.

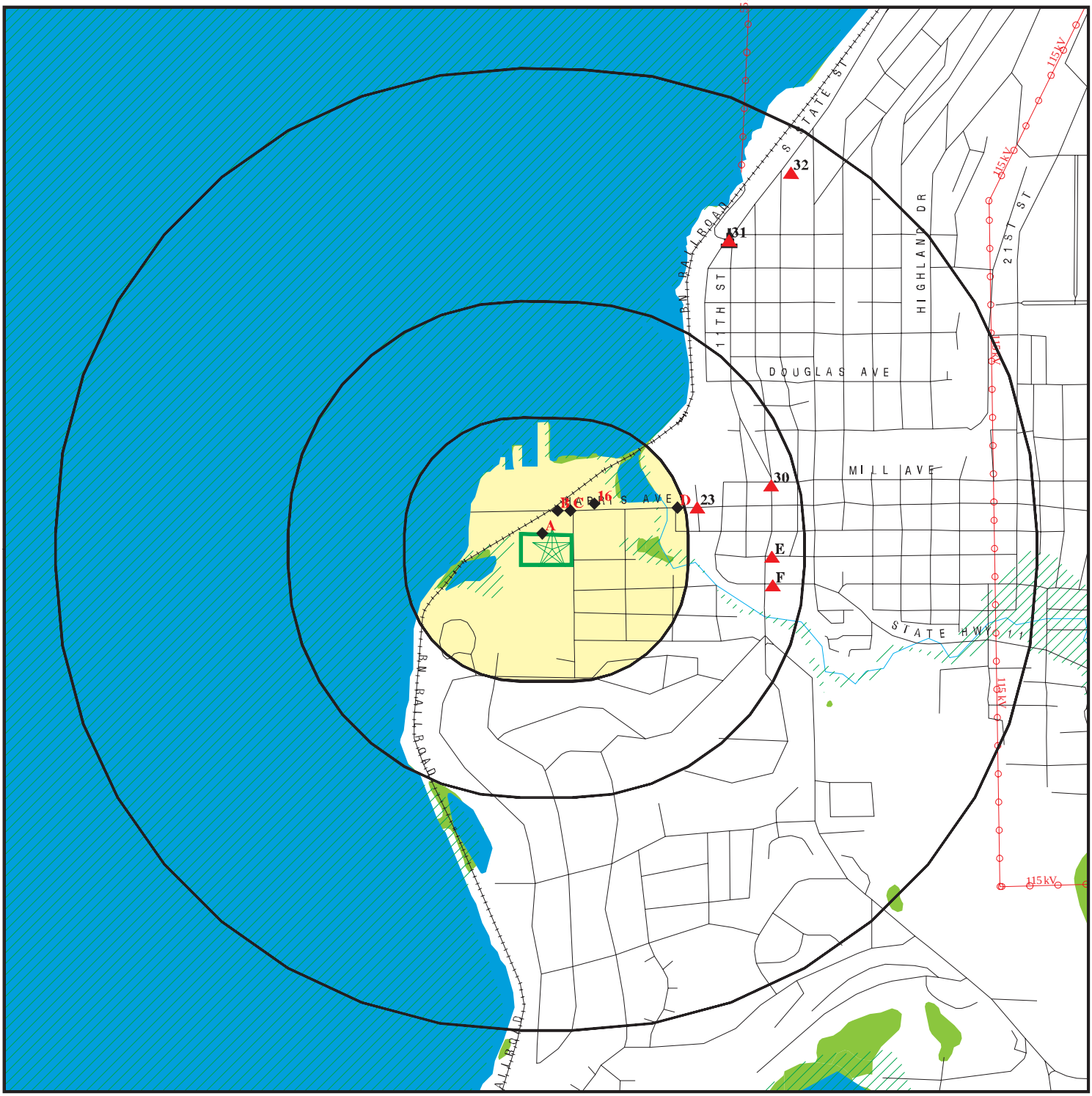
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
BELLINGHAM BAY GAS CO	S STATE AND BAY VIEW ST	1/2 - 1 NNE	31	66

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
EMERALD BAY EVENTS	CSCSL
LITTLE SQUALICUM PARK	CSCSL, FINDS
WHATCOM WATERWAY	CSCSL, FINDS, INST CONTROL
BELLINGHAM COLD STORAGE PARKING LOT	CSCSL
HARBOR MARINE FUEL	CSCSL, FINDS, VCP
GEORGIA PAC BIO TREATMENT LGN	CSCSL, FINDS
HARBOR MARINE FUEL/BELLINGHAM COLD STORAGE	SPILLS, ICR
BELLINGHAM NATIONAL BANK	UST
UNICRAFT PLASTICS INC BELLINGHAM	RCRA-SQG, FINDS
PORT OF BELLINGHAM	ICR
OLYMPIC PIPELINE - WHATCOM CREEK INCIDENT	ICR

OVERVIEW MAP - 1696255.2s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Homeport Properties, Inc ADDRESS: 210 McKenzie Ave Bellingham WA 98225 LAT/LONG: 48.7188 / 122.5122	CLIENT: Whatcom Environmental Services CONTACT: Thom Davis INQUIRY #: 1696255.2s DATE: June 14, 2006

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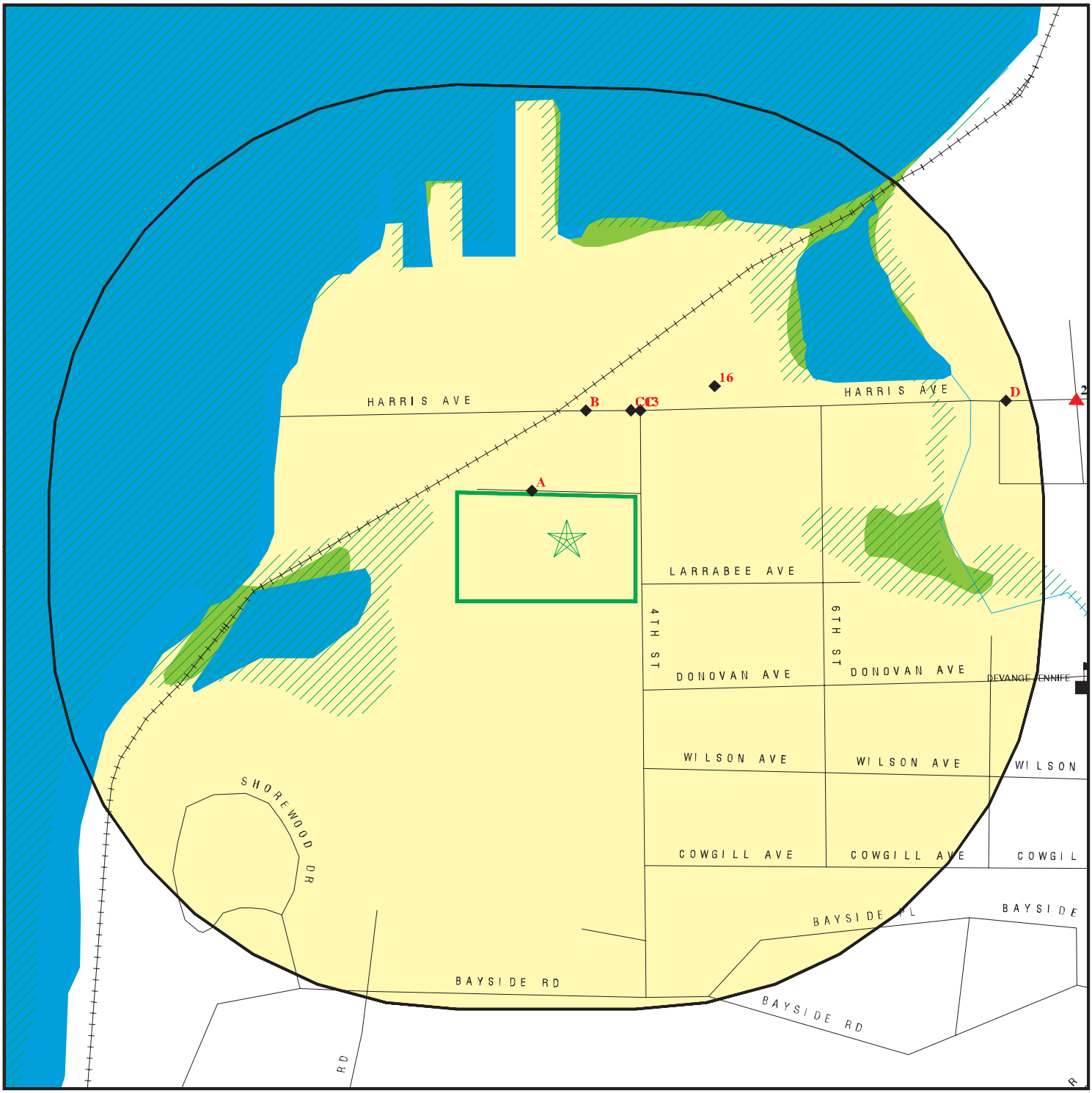
DETAIL MAP - 1696255.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Landfill Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Homeport Properties, Inc	CLIENT:	Whatcom Environmental Services
ADDRESS:	210 McKenzie Ave Bellingham WA 98225	CONTACT:	Thom Davis
		INQUIRY #:	1696255.2s
LAT/LONG:	48.7188 / 122.5122	DATE:	June 14, 2006

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL RECOVERY		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	1	NR	NR	1
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.		0.250	5	3	NR	NR	NR	8
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
STATE AND LOCAL RECORDS								
CSCSL		1.000	2	0	1	1	NR	4
HSL		1.000	0	0	0	0	NR	0
CSCSL NFA		0.500	0	0	0	NR	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
SWTIRE		0.500	0	0	0	NR	NR	0
LUST		0.500	0	1	3	NR	NR	4
UST		0.250	6	1	NR	NR	NR	7
AST		0.250	0	0	NR	NR	NR	0
MANIFEST		0.250	4	1	NR	NR	NR	5
SPILLS		TP	NR	NR	NR	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
VCP		0.500	1	0	0	NR	NR	1
ICR		0.500	1	1	4	NR	NR	6
DRYCLEANERS		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CDL		TP	NR	NR	NR	NR	NR	0
WA Emissions		TP	NR	NR	NR	NR	NR	0
INACTIVE DRYCLEANERS		0.250	0	0	NR	NR	NR	0
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	1	NR	1
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **POST POINT PLANT** **UST U003028677**
200 MACKENZIE AVENUE **EMI N/A**
< 1/8 **BELLINGHAM, WA 98225**
1 ft.

Site 1 of 5 in cluster A

Relative:
Lower

Actual:
20 ft.

WA AIR EMISSIONS:

Facility ID:	Not reported	Local ID:	Not reported
SO2 Chemical:	Not reported	NO2 Chemical:	Not reported
VOC Chemical:	Not reported	CO Chemical:	Not reported
PM10 Chemical:	Not reported	Year Of Info:	2001

Mailing Name: POST POINT WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPT. 2221 PACIFIC ST
BELLINGHAM, WA
Year Of Info: 2001
Mail Add Zip 2: Not reported
Point Num: 01 Point Desc: UNIT #1 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : 35755675 Local Air Agency ID D
Fed County Code 073 Source Number : 0020
Process ID : Not reported Plant Name : POST POINT WASTEWATER TREATMENT PLANT
Univsl Business ID Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850 Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : Not reported
Plant Lat/Long : 48° 53´ 9˝ / 122° 30´ 41˝
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported

% Of Ops Occuring During Qtr Dec-Feb :	25
% Of Ops Occuring During Qtr Mar-May :	25
% Of Ops Occuring During Qtr Jun-Aug :	25
% Of Ops Occuring During Qtr Sep-Nov :	25
# Of Hours Facility Operates Each Day :	24
# Of Days Facility Operates Each Week :	3
# Of Weeks Facility Operates Each Year :	52
Exit Temp Of A Stack Or Vent :	110
% Wtr In Stack / Vent Exhaust :	Not reported
Height Of Stack :	35
Diameter Of Stack :	1.5
Air Flow From A Vent Or Stack :	Not reported
% Oxygen In Stack / Vent Exhaust :	10
Vertical Dist Exhaust Travels From Stack/vent Outlet :	Not reported
Source Classifcn Code For Each Process In A Facility :	50100506
EPA Code For Throughput Unit Of Measure :	E6FT3
EPA Mat Code For Throughput At Each Process :	126
EPA Code For Mat Throput Fate Desc/input/output/existing :	I
Description Of Material :	Gas
Annual Qty Of Throughput Mat :	Not reported
Maximum Rate/amount Of Annual Throughput :	Not reported
Percent Of Sulfur In Fuels :	Not reported
Percent Of Ash In Fuels :	Not reported
SCC Process Description :	Not reported
Emission Unit Output Threshhold :	Not reported
Facility's Throughput Data Confidential :	No
Tot Suspended Partclt Emissn Tons/Year :	No
Tot Suspended Partclte Emissions Estmn Code :	1

POST POINT PLANT (Continued) **U003028677**

Pri Particulate Matter Cntrl Tech Code At Point/Segment :	Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment :	Not reported
% Control Of Particulate Matter Emissions :	Not reported
Particulate Matter Emission (?10microns) Tons/Year :	Not reported
Partclte Matter Emission (?10microns) Est Code :	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg :	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	Not reported
Sulfur Dioxide Emission Estimation Code :	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	5
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	2
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	3
Carbon Monoxide Emission Est Code :	3
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Facility ID: Not reported Local ID: Not reported

POST POINT PLANT (Continued) **U003028677**

SO2 Chemical: Not reported
NO2 Chemical: Not reported
VOC Chemical: Not reported
CO Chemical: Not reported
PM10 Chemical: Not reported
Year Of Info: 2001
Mailing Name: POST POINT WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPT. 2221 PACIFIC ST
BELLINGHAM, WA
Year Of Info: 2001
Mail Add Zip 2: Not reported
Point Num: 02
Point Desc: UNIT #2 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : 35755675
Local Air Agency IDD
Fed County Code 073
Source Number : 0020
Process ID : Not reported
Plant Name : POST POINT WASTEWATER TREATMENT PLANT
Univsl Business ID Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850
Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : Not reported
Plant Lat/Long : 48° 53´ 9˝ / 122° 30´ 41˝
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : 25
% Of Ops Occuring During Qtr Mar-May : 25
% Of Ops Occuring During Qtr Jun-Aug : 25
% Of Ops Occuring During Qtr Sep-Nov : 25
# Of Hours Facility Operates Each Day : 24
# Of Days Facility Operates Each Week : 4
# Of Weeks Facility Operates Each Year : 52
Exit Temp Of A Stack Or Vent : Not reported
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : Not reported
Diameter Of Stack : Not reported
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : 50100506
EPA Code For Throughput Unit Of Measure : TON
EPA Mat Code For Throughput At Each Process : 266
EPA Code For Mat Throput Fate Desc/input/output/existing : I
Description Of Material : Raw Coke
Annual Qty Of Throughput Mat : Not reported
Maximum Rate/amount Of Annual Throughput : Not reported
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : Not reported
Emission Unit Output Threshhold : Not reported
Facility's Throughput Data Confidential : No
Tot Suspended Partclt Emissn Tons/Year : No
Tot Suspended Partclte Emissions Estmn Code : 1
Pri Particulate Matter Cntrl Tech Code At Point/Segment : Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment : Not reported
% Control Of Particulate Matter Emissions : Not reported
Particulate Matter Emission (?10microns) Tons/Year : Not reported
Partclte Matter Emission (?10microns) Est Code : Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg : Not reported

POST POINT PLANT (Continued) **U003028677**

Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	0
Sulfur Dioxide Emission Estimation Code :	3
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	5
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	2
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	5
Carbon Monoxide Emission Est Code :	1
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Facility ID:	Not reported	Local ID:	Not reported
SO2 Chemical:	Not reported	NO2 Chemical:	Not reported
VOC Chemical:	Not reported	CO Chemical:	Not reported
PM10 Chemical:	Not reported	Year Of Info:	Not reported

Mailing Name: POST POINT WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPT. 2221 PACIFIC ST
BELLINGHAM, WA 98226

POST POINT PLANT (Continued) **U003028677**

Year Of Info: Not reported
Mail Add Zip 2: Not reported
Point Num: 01 Point Desc: UNIT #1 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : 35755675 Local Air Agency IDD
Fed County Code 073 Source Number : 0020
Process ID : Not reported Plant Name : Not reported
Univsl Business ID Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850 Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : 4952
Plant Lat/Long : Not reported
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : 25
% Of Ops Occuring During Qtr Mar-May : 25
% Of Ops Occuring During Qtr Jun-Aug : 25
% Of Ops Occuring During Qtr Sep-Nov : 25
# Of Hours Facility Operates Each Day : 24
# Of Days Facility Operates Each Week : 3
# Of Weeks Facility Operates Each Year : 52
Exit Temp Of A Stack Or Vent : 110
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : 35
Diameter Of Stack : 2
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : 10
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : 50100506
EPA Code For Throughput Unit Of Measure : TON
EPA Mat Code For Throughput At Each Process : 561
EPA Code For Mat Throput Fate Desc/input/output/existing : I
Description Of Material : Sludge
Annual Qty Of Throughput Mat : 2332
Maximum Rate/amount Of Annual Throughput : Not reported
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : HOURS OPERATED IN 2002:3990
Emission Unit Output Threshhold : N
Facility's Throughput Data Confidential : No
Tot Suspended Partclt Emissn Tons/Year : No
Tot Suspended Partclte Emissions Estmn Code : 1
Pri Particulate Matter Cntrl Tech Code At Point/Segment : 115
Sec Partciulate Matter Cntrl Tech Code At Point/segment : 146
% Control Of Particulate Matter Emissions : Not reported
Particulate Matter Emission (?10microns) Tons/Year : 0
Partclte Matter Emission (?10microns) Est Code : 1
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg : Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg : Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns : Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr : 0
Prticlte Matter Emisn (?2.5microns) Est Code : 1
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported

POST POINT PLANT (Continued) **U003028677**

% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	0
Sulfur Dioxide Emission Estimation Code :	3
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	6
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	2
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	6
Carbon Monoxide Emission Est Code :	1
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	48.8858333333333 / -122.511388888889
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Facility ID:	Not reported	Local ID:	Not reported
SO2 Chemical:	Not reported	NO2 Chemical:	Not reported
VOC Chemical:	Not reported	CO Chemical:	Not reported
PM10 Chemical:	Not reported	Year Of Info:	Not reported
Mailing Name:	POST POINT WASTEWATER TREATMENT PLANT PUBLIC WORKS DEPT. 2221 PACIFIC ST BELLINGHAM, WA 98226		
Year Of Info:	Not reported		
Mail Add Zip 2:	Not reported		
Point Num:	02	Point Desc:	UNIT #2 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr:	Not reported		
Ecolgy Facility ID :	35755675	Local Air Agency IDD	
Fed County Code	073	Source Number :	0020

POST POINT PLANT (Continued) **U003028677**

Process ID : Not reported Plant Name : Not reported
Univsl Business ID Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850 Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : 4952
Plant Lat/Long : Not reported
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : 25
% Of Ops Occuring During Qtr Mar-May : 25
% Of Ops Occuring During Qtr Jun-Aug : 25
% Of Ops Occuring During Qtr Sep-Nov : 25
# Of Hours Facility Operates Each Day : 24
# Of Days Facility Operates Each Week : 4
# Of Weeks Facility Operates Each Year : 52
Exit Temp Of A Stack Or Vent : Not reported
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : Not reported
Diameter Of Stack : Not reported
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : 50100506
EPA Code For Throughput Unit Of Measure : TON
EPA Mat Code For Throughput At Each Process : 561
EPA Code For Mat Throput Fate Desc/input/output/existing : I
Description Of Material : Sludge
Annual Qty Of Throughput Mat : 2530
Maximum Rate/amount Of Annual Throughput : Not reported
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : HOURS OPERATED IN 2001:2530
Emission Unit Output Threshhold : N
Facility's Throughput Data Confidential : No
Tot Suspended Partclt Emissn Tons/Year : No
Tot Suspended Partclte Emissions Estmn Code : 1
Pri Particulate Matter Cntrl Tech Code At Point/Segment : 115
Sec Partciulate Matter Cntrl Tech Code At Point/segment : 146
% Control Of Particulate Matter Emissions : Not reported
Particulate Matter Emission (?10microns) Tons/Year : 0
Partclte Matter Emission (?10microns) Est Code : 1
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg : Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg : Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns : Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr : 0
Prticlte Matter Emisn (?2.5microns) Est Code : 1
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions : Not reported
Sulfur Dioxide Emissions Tons/Year : 0
Sulfur Dioxide Emission Estimation Code : 3
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg : Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg : Not reported
Percent Control Of Sulfur Dioxide Emissions : Not reported

POST POINT PLANT (Continued) **U003028677**

Nitrous Oxides Emissions In Tons/Yr :	4
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	1
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	4
Carbon Monoxide Emission Est Code :	1
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	48.8858333333333 / -122.511388888889
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Facility ID:	0020	Local ID:	D
SO2 Chemical:	0	NO2 Chemical:	1
VOC Chemical:	0	CO Chemical:	0
PM10 Chemical:	0	Year Of Info:	98
Mailing Name:	POST POINT WASTEWATER TREATMENT PLANT PUBLIC WORKS DEPT. BELLINGHAM, WA 98226		
Year Of Info:	98		
Mail Add Zip 2:	Not reported		
Point Num:	01	Point Desc:	UNIT #1 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr:	Not reported		
Ecolgy Facility ID :	Not reported	Local Air Agency ID:	Not reported
Fed County Code	Not reported	Source Number :	Not reported
Process ID :	Not reported	Plant Name :	Not reported
Univsl Business ID:	Not reported		
Contact Name :			
Contact Phone :	Not reported	Contact Fax :	Not reported
Contact E-mail :	Not reported		
Plant SIC Code :	Not reported		

POST POINT PLANT (Continued) **U003028677**

Plant Lat/Long : Not reported
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: Not reported
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : Not reported
% Of Ops Occuring During Qtr Mar-May : Not reported
% Of Ops Occuring During Qtr Jun-Aug : Not reported
% Of Ops Occuring During Qtr Sep-Nov : Not reported
# Of Hours Facility Operates Each Day : Not reported
# Of Days Facility Operates Each Week : Not reported
# Of Weeks Facility Operates Each Year : Not reported
Exit Temp Of A Stack Or Vent : Not reported
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : Not reported
Diameter Of Stack : Not reported
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : Not reported
EPA Code For Throughput Unit Of Measure : Not reported
EPA Mat Code For Throughput At Each Process : Not reported
EPA Code For Mat Throput Fate Desc/input/output/existing : Not reported
Description Of Material : Not reported
Annual Qty Of Throughput Mat : Not reported
Maximum Rate/amount Of Annual Throughput : Not reported
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : Not reported
Emission Unit Output Threshhold : Not reported
Facility's Throughput Data Confidential : Not reported
Tot Suspended Partclt Emissn Tons/Year : Not reported
Tot Suspended Partclte Emissions Estmn Code : Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment : Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment : Not reported
% Control Of Particulate Matter Emissions : Not reported
Particulate Matter Emission (?10microns) Tons/Year : Not reported
Partclte Matter Emission (?10microns) Est Code : Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg : Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg : Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns : Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr : Not reported
Prticlte Matter Emisn (?2.5microns) Est Code : Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg : Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions : Not reported
Sulfur Dioxide Emissions Tons/Year : Not reported
Sulfur Dioxide Emission Estimation Code : Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg : Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg : Not reported
Percent Control Of Sulfur Dioxide Emissions : Not reported
Nitrous Oxides Emissions In Tons/Yr : Not reported
Nitrous Oxides Emission Estimation Code : Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment : Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment : Not reported
Percent Control Of Nitrous Oxides Emissions : Not reported
Desc Of Volatile Organic Compound Emitted : Not reported

POST POINT PLANT (Continued) **U003028677**

Volatile Organic Compound Emissions In Tons/Year :	Not reported
Voltl Organic Compound Emissions Est Code :	Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	Not reported
Carbon Monoxide Emission Est Code :	Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Click this hyperlink while viewing on your computer to access
3 additional WA AIRS record(s) in the EDR Site Report.

UST:

Facility ID:	35755675
Site ID:	8881
Install Date:	1/1/1973 00:00:00
Capacity:	111 TO 1,100 Gallons
Status:	Removed
Tank Name:	POST
Substance:	Not reported
Compartment #:	1
Tank ID:	7553
Comartment ID:	7687
Decimal Latitude:	48.71905
Decimal Longitude:	-122.51393
Ecology Region:	North Western

A2 **POST POINT PLANT** **EMI** **1005981486**
200 MCKENZIE AVE **N/A**
< 1/8 **BELLINGHAM, WA 98225**
1 ft.

Site 2 of 5 in cluster A

Relative:
Lower

Actual:
20 ft.

WA AIR EMISSIONS:

Facility ID:	Not reported	Local ID:	Not reported
SO2 Chemical:	Not reported	NO2 Chemical:	Not reported
VOC Chemical:	Not reported	CO Chemical:	Not reported
PM10 Chemical:	Not reported	Year Of Info:	2000

Mailing Name: POST POINT WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPT. 2221 PACIFIC ST
BELLINGHAM, WA 98226

Year Of Info: 2000
Mail Add Zip 2: Not reported
Point Num: 01 Point Desc: UNIT #1 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : 35755675 Local Air Agency ID D
Fed County Code 073 Source Number : 0020
Process ID : 01 Plant Name : POST POINT WASTEWATER TREATMENT PLANT
Univsl Business ID Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850 Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : 4952
Plant Lat/Long : 48° 53´ 9˝ / 122° 30´ 41˝
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported

% Of Ops Occuring During Qtr Dec-Feb :	25
% Of Ops Occuring During Qtr Mar-May :	25
% Of Ops Occuring During Qtr Jun-Aug :	25
% Of Ops Occuring During Qtr Sep-Nov :	25
# Of Hours Facility Operates Each Day :	24
# Of Days Facility Operates Each Week :	3
# Of Weeks Facility Operates Each Year :	52
Exit Temp Of A Stack Or Vent :	110
% Wtr In Stack / Vent Exhaust :	Not reported
Height Of Stack :	35
Diameter Of Stack :	1.5
Air Flow From A Vent Or Stack :	Not reported
% Oxygen In Stack / Vent Exhaust :	10
Vertical Dist Exhaust Travels From Stack/vent Outlet :	Not reported
Source Classifcn Code For Each Process In A Facility :	50100506
EPA Code For Throughput Unit Of Measure :	TON
EPA Mat Code For Throughput At Each Process :	65
EPA Code For Mat Throput Fate Desc/input/output/existing :	I
Description Of Material :	Dried Sludge
Annual Qty Of Throughput Mat :	1860
Maximum Rate/amount Of Annual Throughput :	0
Percent Of Sulfur In Fuels :	Not reported
Percent Of Ash In Fuels :	Not reported
SCC Process Description :	HOURS OPERATED IN 2000: 3174
Emission Unit Output Threshhold :	Not reported
Facility's Throughput Data Confidential :	No
Tot Suspended Partclt Emissn Tons/Year :	No
Tot Suspended Partclte Emissions Estmn Code :	1

POST POINT PLANT (Continued) **1005981486**

Pri Particulate Matter Cntrl Tech Code At Point/Segment :	115
Sec Partciulate Matter Cntrl Tech Code At Point/segment :	146
% Control Of Particulate Matter Emissions :	Not reported
Particulate Matter Emission (?10microns) Tons/Year :	Not reported
Partclte Matter Emission (?10microns) Est Code :	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg :	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	Not reported
Sulfur Dioxide Emission Estimation Code :	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	5
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	1
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	5
Carbon Monoxide Emission Est Code :	3
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

Facility ID: Not reported Local ID: Not reported

POST POINT PLANT (Continued) **1005981486**

SO2 Chemical: Not reported
NO2 Chemical: Not reported
VOC Chemical: Not reported
CO Chemical: Not reported
PM10 Chemical: Not reported
Year Of Info: 2000
Mailing Name: POST POINT WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPT. 2221 PACIFIC ST
BELLINGHAM, WA 98226
Year Of Info: 2000
Mail Add Zip 2: Not reported
Point Num: 02
Point Desc: UNIT #2 SEWAGE SLUDGE INCIN.
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : 35755675
Local Air Agency ID: D
Fed County Code 073
Source Number : 0020
Process ID : 01
Plant Name : POST POINT WASTEWATER TREATMENT PLANT
Univsl Business ID: Not reported
Contact Name : WILLIAM McCOURT
Contact Phone : 360-676-6850
Contact Fax : 360-676-7799
Contact E-mail : bmccourt@cob.org
Plant SIC Code : 4952
Plant Lat/Long : 48° 53´ 9˝ / 122° 30´ 41˝
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: 4952
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : 25
% Of Ops Occuring During Qtr Mar-May : 25
% Of Ops Occuring During Qtr Jun-Aug : 25
% Of Ops Occuring During Qtr Sep-Nov : 25
# Of Hours Facility Operates Each Day : 24
# Of Days Facility Operates Each Week : 4
# Of Weeks Facility Operates Each Year : 52
Exit Temp Of A Stack Or Vent : Not reported
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : Not reported
Diameter Of Stack : Not reported
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : 50100506
EPA Code For Throughput Unit Of Measure : TON
EPA Mat Code For Throughput At Each Process : 65
EPA Code For Mat Throput Fate Desc/input/output/existing : I
Description Of Material : Dried Sludge
Annual Qty Of Throughput Mat : 3942
Maximum Rate/amount Of Annual Throughput : 0
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : HOURS OPERATED IN 2000: 3078
Emission Unit Output Threshhold : Not reported
Facility's Throughput Data Confidential : No
Tot Suspended Partclt Emissn Tons/Year : No
Tot Suspended Partclte Emissions Estmn Code : 1
Pri Particulate Matter Cntrl Tech Code At Point/Segment : 115
Sec Partciulate Matter Cntrl Tech Code At Point/segment : 146
% Control Of Particulate Matter Emissions : Not reported
Particulate Matter Emission (?10microns) Tons/Year : Not reported
Partclte Matter Emission (?10microns) Est Code : Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg : Not reported

POST POINT PLANT (Continued) **1005981486**

Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	Not reported
Sulfur Dioxide Emission Estimation Code :	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	5
Nitrous Oxides Emission Estimation Code :	3
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	2
Voltl Organic Compound Emissions Est Code :	3
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	5
Carbon Monoxide Emission Est Code :	1
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

A3 **200 MCKENZIE** **ERNS** **93351135**
200 MCKENZIE **N/A**
< 1/8 **BELLINGHAM, WA 98225**
1 ft.

Site 3 of 5 in cluster A

Relative:
Lower

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
20 ft.

A4 **CITY OF BELLINGHAM** **EMI** **S103531742**
200 MCKENZIE AV **N/A**
< 1/8 **BELLINGHAM, WA 98225**
1 ft.

Site 4 of 5 in cluster A

Relative:
Lower

Actual:
20 ft.

WA AIR EMISSIONS:

Facility ID:	Not reported	Local ID:	Not reported
SO2 Chemical:	Not reported	NO2 Chemical:	Not reported
VOC Chemical:	Not reported	CO Chemical:	Not reported
PM10 Chemical:	Not reported	Year Of Info:	Not reported
Mailing Name:	CITY OF BELLINGHAM 200 MCKENZIE AV BELLINGHAM, WA		
Year Of Info:	Not reported		
Mail Add Zip 2:	Not reported		
Point Num:	Not reported	Point Desc:	Not reported
Tot Suspended Particulate Tons/Yr:	Not reported		
Ecolgy Facility ID :	Not reported	Local Air Agency ID:	Not reported
Fed County Code	Not reported	Source Number :	Not reported
Process ID :	Not reported	Plant Name :	Not reported
Univsl Business ID:	Not reported		
Contact Name :			
Contact Phone :	Not reported	Contact Fax :	Not reported
Contact E-mail :	Not reported		
Plant SIC Code :	Not reported		
Plant Lat/Long :	Not reported		
Point Comments :	Not reported		
Boilers Design Capacity At A Point :	Not reported		
SIC Code For A Point Process:	Not reported		
Plant Lat/Long :	Not reported		
% Of Ops Occuring During Qtr Dec-Feb :		Not reported	
% Of Ops Occuring During Qtr Mar-May :		Not reported	
% Of Ops Occuring During Qtr Jun-Aug :		Not reported	
% Of Ops Occuring During Qtr Sep-Nov :		Not reported	
# Of Hours Facility Operates Each Day :		Not reported	
# Of Days Facility Operates Each Week :		Not reported	
# Of Weeks Facility Operates Each Year :		Not reported	
Exit Temp Of A Stack Or Vent :	Not reported		
% Wtr In Stack / Vent Exhaust :	Not reported		
Height Of Stack :	Not reported		
Diameter Of Stack :	Not reported		
Air Flow From A Vent Or Stack :	Not reported		
% Oxygen In Stack / Vent Exhaust :	Not reported		
Vertical Dist Exhaust Travels From Stack/vent Outlet :		Not reported	
Source Classifcn Code For Each Process In A Facility :		Not reported	
EPA Code For Throughput Unit Of Measure :		Not reported	
EPA Mat Code For Throughput At Each Process :		Not reported	
EPA Code For Mat Throput Fate Desc/input/output/existing :		Not reported	
Description Of Material :		Not reported	
Annual Qty Of Throughput Mat :		Not reported	

CITY OF BELLINGHAM (Continued) **S103531742**

Maximum Rate/amount Of Annual Throughput :		Not reported
Percent Of Sulfur In Fuels :		Not reported
Percent Of Ash In Fuels :		Not reported
SCC Process Description :	Not reported	
Emission Unit Output Threshhold :	Not reported	
Facility's Throughput Data Confidential :		Not reported
Tot Suspended Partclt Emissn Tons/Year :		Not reported
Tot Suspended Partclte Emissions Estmn Code :		Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment :		Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment :		Not reported
% Control Of Particulate Matter Emissions :		Not reported
Particulate Matter Emission (?10microns) Tons/Year :		Not reported
Partclte Matter Emission (?10microns) Est Code :		Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg :		Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :		Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :		Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :		Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :		Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :		Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :		Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :		Not reported
Sulfur Dioxide Emissions Tons/Year :		Not reported
Sulfur Dioxide Emission Estimation Code :		Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :		Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :		Not reported
Percent Control Of Sulfur Dioxide Emissions :		Not reported
Nitrous Oxides Emissions In Tons/Yr :		Not reported
Nitrous Oxides Emission Estimation Code :		Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :		Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :		Not reported
Percent Control Of Nitrous Oxides Emissions :		Not reported
Desc Of Volatile Organic Compound Emitted :		Not reported
Volatile Organic Compound Emissions In Tons/Year :		Not reported
Voltl Organic Compound Emissions Est Code :		Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :		Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :		Not reported
% Cntrl Of Volatile Organic Compound Emissions :		Not reported
Carbon Monoxide Emissions In Tons/Year :		Not reported
Carbon Monoxide Emission Est Code :		Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :		Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :		Not reported
% Cntrl Of Carbon Monoxide Emissions :		Not reported
Lead Emissions In Tons/Year :		Not reported
Lead Emission Estimation Code :		Not reported
PM10 Nonattainment Area :		Not reported
Ozone Nonattainment Area :		Not reported
CO Nonattainment Area :		Not reported
UTM East :		Not reported
UTM North :		Not reported
UTM Zone :		Not reported
Plant Lat/Long :		Not reported
Point Lat/Long :		Not reported
Facility type :		Not reported
Plant NAICS :		Not reported
Point NAICS :		Not reported
P NH3 Control :		Not reported
Plant Utm East :		Not reported

CITY OF BELLINGHAM (Continued) **S103531742**

Plant Utm North : Not reported
Plant Utm Zone : Not reported
NH3 TPY : Not reported
S NH3 Ctrl : Not reported
NH3 % Ctrl : Not reported
Stack ACFS : Not reported

Facility ID: 0020 Local ID: D
SO2 Chemical: 0 NO2 Chemical: 11
VOC Chemical: 4 CO Chemical: 10
PM10 Chemical: 0 Year Of Info: 97
Mailing Name: Not reported
Not reported
Not reported
Year Of Info: 97
Mail Add Zip 2: Not reported
Point Num: Not reported Point Desc: Not reported
Tot Suspended Particulate Tons/Yr: Not reported
Ecolgy Facility ID : Not reported Local Air Agency ID: Not reported
Fed County Code Not reported Source Number : Not reported
Process ID : Not reported Plant Name : Not reported
Univsl Business ID: Not reported
Contact Name :
Contact Phone : Not reported Contact Fax : Not reported
Contact E-mail : Not reported
Plant SIC Code : Not reported
Plant Lat/Long : Not reported
Point Comments : Not reported
Boilers Design Capacity At A Point : Not reported
SIC Code For A Point Process: Not reported
Plant Lat/Long : Not reported
% Of Ops Occuring During Qtr Dec-Feb : Not reported
% Of Ops Occuring During Qtr Mar-May : Not reported
% Of Ops Occuring During Qtr Jun-Aug : Not reported
% Of Ops Occuring During Qtr Sep-Nov : Not reported
# Of Hours Facility Operates Each Day : Not reported
# Of Days Facility Operates Each Week : Not reported
# Of Weeks Facility Operates Each Year : Not reported
Exit Temp Of A Stack Or Vent : Not reported
% Wtr In Stack / Vent Exhaust : Not reported
Height Of Stack : Not reported
Diameter Of Stack : Not reported
Air Flow From A Vent Or Stack : Not reported
% Oxygen In Stack / Vent Exhaust : Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet : Not reported
Source Classifcn Code For Each Process In A Facility : Not reported
EPA Code For Throughput Unit Of Measure : Not reported
EPA Mat Code For Throughput At Each Process : Not reported
EPA Code For Mat Throput Fate Desc/input/output/existing : Not reported
Description Of Material : Not reported
Annual Qty Of Throughput Mat : Not reported
Maximum Rate/amount Of Annual Throughput : Not reported
Percent Of Sulfur In Fuels : Not reported
Percent Of Ash In Fuels : Not reported
SCC Process Description : Not reported
Emission Unit Output Threshhold : Not reported
Facility's Throughput Data Confidential : Not reported

CITY OF BELLINGHAM (Continued) **S103531742**

Tot Suspended Partclt Emissn Tons/Year :	Not reported
Tot Suspended Partclte Emissions Estmn Code :	Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment :	Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment :	Not reported
% Control Of Particulate Matter Emissions :	Not reported
Particulate Matter Emission (?10microns) Tons/Year :	Not reported
Partclte Matter Emission (?10microns) Est Code :	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg :	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns :	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr :	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code :	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions :	Not reported
Sulfur Dioxide Emissions Tons/Year :	Not reported
Sulfur Dioxide Emission Estimation Code :	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg :	Not reported
Percent Control Of Sulfur Dioxide Emissions :	Not reported
Nitrous Oxides Emissions In Tons/Yr :	Not reported
Nitrous Oxides Emission Estimation Code :	Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment :	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment :	Not reported
Percent Control Of Nitrous Oxides Emissions :	Not reported
Desc Of Volatile Organic Compound Emitted :	Not reported
Volatile Organic Compound Emissions In Tons/Year :	Not reported
Voltl Organic Compound Emissions Est Code :	Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg :	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Volatile Organic Compound Emissions :	Not reported
Carbon Monoxide Emissions In Tons/Year :	Not reported
Carbon Monoxide Emission Est Code :	Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg :	Not reported
% Cntrl Of Carbon Monoxide Emissions :	Not reported
Lead Emissions In Tons/Year :	Not reported
Lead Emission Estimation Code :	Not reported
PM10 Nonattainment Area :	Not reported
Ozone Nonattainment Area :	Not reported
CO Nonattainment Area :	Not reported
UTM East :	Not reported
UTM North :	Not reported
UTM Zone :	Not reported
Plant Lat/Long :	Not reported
Point Lat/Long :	Not reported
Facility type :	Not reported
Plant NAICS :	Not reported
Point NAICS :	Not reported
P NH3 Control :	Not reported
Plant Utm East :	Not reported
Plant Utm North :	Not reported
Plant Utm Zone :	Not reported
NH3 TPY :	Not reported
S NH3 Ctrl :	Not reported
NH3 % Ctrl :	Not reported
Stack ACFS :	Not reported

A5 **POST POINT WASTEWATER TREATMENT PLANT** **RCRA-SQG** **1000285943**
200 MCKENZIE STREET **FINDS** **WAD980739320**
< 1/8 **BELLINGHAM, WA 98225**
1 ft.

Site 5 of 5 in cluster A

Relative:
Lower

Actual:
20 ft.

RCRAInfo:
Owner: BELLINGHAM CITY
EPA ID: WAD980739320
Contact: WILLIAM ENGLANDER
(360) 676-6961
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

B6 **FAIRHAVEN SHIPYARD** **RCRA-SQG** **1000264591**
North **201 HARRIS AVENUE** **FINDS** **WAD067636225**
< 1/8 **BELLINGHAM, WA 98225** **MANIFEST**
275 ft.

Site 1 of 7 in cluster B

Relative:
Lower

Actual:
16 ft.

RCRAInfo:
Owner: MIKE STONER
(360)647-0080
EPA ID: WAD067636225
Contact: MIKE STONER
(360) 676-2500
Classification: Small Quantity Generator
TSDF Activities: Not reported

FAIRHAVEN SHIPYARD (Continued) **1000264591**

Violation Status: Violations exist

Regulation Violated: -200(1)(b) / -630(6)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -200(1)(a)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -200(1)(b) / -630(2)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -210(1)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -210(2)
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -630(7)(a)(iii)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -220(1)
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

FAIRHAVEN SHIPYARD (Continued) **1000264591**

Regulation Violated: -200(1)(d)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2002
Actual Date Achieved Compliance: 07/09/2002

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/28/2002
Penalty Type: Not reported

Regulation Violated: -070(3)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 04/07/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -141(1)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -200(1)(c)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -320(2)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -200(1)(b)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -200(1)(d)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -350

FAIRHAVEN SHIPYARD (Continued) **1000264591**

Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: -200(1)(e)/-330(2)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/07/2000
Actual Date Achieved Compliance: 03/08/2000

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/17/2000
Penalty Type: Not reported

Regulation Violated: 060(2)(5)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/12/1993
Actual Date Achieved Compliance: 10/23/1993

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 09/17/1993
Penalty Type: Not reported

Regulation Violated: 200(1)(e)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/12/1993
Actual Date Achieved Compliance: 10/23/1993

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 09/17/1993
Penalty Type: Not reported

Regulation Violated: 200(1)(e)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/12/1993
Actual Date Achieved Compliance: 05/06/1993

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 09/17/1993
Penalty Type: Not reported

Regulation Violated: 200(1)(b)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/12/1993
Actual Date Achieved Compliance: 10/23/1993

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 09/17/1993
Penalty Type: Not reported

Regulation Violated: 200
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 03/12/1993
Actual Date Achieved Compliance: 10/27/1993

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 09/17/1993
Penalty Type: Not reported

There are 21 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance

FAIRHAVEN SHIPYARD (Continued) **1000264591**

Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	20020709
	GENERATOR-GENERAL REQUIREMENTS	20020709
	GENERATOR-GENERAL REQUIREMENTS	20020709
	GENERATOR-GENERAL REQUIREMENTS	20020709
	GENERATOR-RECORDKEEPING REQUIREMENTS	20020709
	GENERATOR-GENERAL REQUIREMENTS	20020709
	GENERATOR-RECORDKEEPING REQUIREMENTS	20020709
	GENERATOR-GENERAL REQUIREMENTS	20020709
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	20000407
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
	GENERATOR-GENERAL REQUIREMENTS	20000308
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	19931023
	GENERATOR-GENERAL REQUIREMENTS	19931023
	GENERATOR-GENERAL REQUIREMENTS	19930506
	GENERATOR-GENERAL REQUIREMENTS	19931023
	GENERATOR-GENERAL REQUIREMENTS	19931027

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

WA MANIFEST:

Facility Site ID Number:	2922
Permit by Rule:	False
Treatment by Generator:	False
Mixed radioactive waste:	False
Importer of hazardous waste:	False
Immediate recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of dangerous fuel waste:	False
Generator marketing to burner:	False
"Other marketers (i.e., blender, distributor, etc.)":	False

FAIRHAVEN SHIPYARD (Continued) **1000264591**

Utility boiler burner:	False
Industry boiler burner:	False
Industrial Furnace:	False
Smelter defferal:	False
Universal waste - batteries - generate:	False
Universal waste - thermostats - generate:	False
Universal waste - mercury - generate:	False
Universal waste - lamps - generate:	False
Universal waste - batteries - accumulate:	False
Universal waste - thermostats - accumulate:	False
Universal waste - mercury - accumulate:	False
Universal waste - lamps - accumulate:	False
Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
EPA ID:	WAD067636225
Facility Address 2:	Not reported
TAX REG NBR:	600200146
NAICS CD:	336611
BUSINESS TYPE:	Ship/Boat Repair
MAIL NAME:	Port of Bellingham
MAIL ADDR LINE1:	PO Box 1677
MAIL CITY,ST,ZIP:	BELLINGHAM, WA 98225
MAIL COUNTRY:	UNITED STATES
LEGAL ORG NAME:	Port of Bellingham-Harris Ave Shipyard
LEGAL ORG TYPE:	Municipal
LEGAL ADDR LINE1:	PO Box 1677
LEGAL CITY,ST,ZIP:	BELLINGHAM, WA 98227
LEGAL COUNTRY:	UNITED STATES
LEGAL PHONE NBR:	(360)676-2500,ext 307
LEGAL EFFECTIVE DATE:	06/18/02
LAND ORG NAME:	Port of Bellingham
LAND ORG TYPE:	Municipal
LAND PERSON NAME:	Not reported
LAND ADDR LINE1:	PO Box 1677
LAND CITY,ST,ZIP:	BELLINGHAM, WA 98227-1677
LAND COUNTRY:	UNITED STATES
LAND PHONE NBR:	(360)676-2500,ext 307
OPERATOR ORG NAME:	Port of Bellingham
OPERATOR ORG TYPE:	Private
OPERATOR ADDR LINE1:	PO Box 1677
OPERATOR CITY,ST,ZIP:	BELLINGHAM, WA 98227-1677
OPERATOR COUNTRY:	UNITED STATES
OPERATOR PHONE NBR:	(360)676-2500
OPERATOR EFFECTIVE DATE:	06/20/96
SITE CONTACT NAME:	Mike Stoner
SITE CONTACT ADDR LINE1:	PO Box 1677
SITE CONTACT ZIP:	BELLINGHAM, WA 98227-1677
SITE CONTACT COUNTRY:	UNITED STATES
SITE CONTACT PHONE NBR:	(360)676-2500
SITE CONTACT EMAIL:	Not reported
FORM CONTACT NAME:	Alan Birdsall
FORM CONTACT ADDR LINE1:	PO Box 1677
FORM CONTACT CITY,ST,ZIP:	BELLINGHAM, WA 98227
FORM CONTACT COUNTRY:	UNITED STATES
FORM CONTACT PHONE NBR:	(360)676-2500, ext 383

FAIRHAVEN SHIPYARD (Continued) **1000264591**

FORM CONTACT EMAIL:	alanb@portofbellingham.com
GEN STATUS CD:	XQG
MONTHLY GENERATION:	False
BATCH GENERATION:	False
ONE TIME GENERATION:	False
TRANSPORTS OWN WASTE:	False
TRANSPORTS OTHRS WASTE:	False
RECYCLER ONSITE:	False
TRANSFER FACILITY:	False
OTHER EXEMPTION:	Not reported
UW BATTERY GEN:	False
USED OIL TRANSPORTER:	False
USED OIL TRANSFER FACLTY:	False
USED OIL PROCESSOR:	False
USED OIL REREFINER:	False
USED OIL FUEL MRKTR DIRECTS SHPMNTS:	False
USED OIL FUEL MRKTR MEETS SPECS:	False

B7 **PUGLIA ENGINEERINGINC DBA FAIRHAVEN SHIP** **RCRA-SQG** **1007265215**
North **201 HARRIS AVE BLDG A** **MANIFEST** **WAH000019232**
< 1/8 **BELLINGHAM, WA 98225**
275 ft.

Site 2 of 7 in cluster B

Relative:
Lower

Actual:
16 ft.

RCRAInfo:

Owner:	PUGLIA ENGINEERING INC DBA FAIRHAVEN SHI
	000-000-0000
EPA ID:	WAH000019232
Contact:	PHIL MOSES
	3606470879 213
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

WA MANIFEST:

Facility Site ID Number:	9110068
Permit by Rule:	False
Treatment by Generator:	False
Mixed radioactive waste:	False
Importer of hazardous waste:	False
Immediate recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of dangerous fuel waste:	False
Generator marketing to burner:	False
"Other marketers (i.e., blender, distributor, etc.)":	False
Utility boiler burner:	False
Industry boiler burner:	False
Industrial Furnace:	False
Smelter defferal:	False
Universal waste - batteries - generate:	False
Universal waste - thermostats - generate:	False
Universal waste - mercury - generate:	False
Universal waste - lamps - generate:	False
Universal waste - batteries - accumulate:	False
Universal waste - thermostats - accumulate:	False
Universal waste - mercury - accumulate:	False

PUGLIA ENGINEERINGINC DBA FAIRHAVEN SHIP (Continued) **1007265215**

Universal waste - lamps - accumulate:	False
Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
EPA ID:	WAH000019232
Facility Address 2:	Not reported
TAX REG NBR:	601815831
NAICS CD:	336611
BUSINESS TYPE:	Ship Repair
MAIL NAME:	Puglia Engineering Inc dba Fairhaven Shi
MAIL ADDR LINE1:	201 HARRIS AVE
MAIL ADDR LINE2:	BLDG A
MAIL CITY,ST,ZIP:	BELLINGHAM, WA 98225
MAIL COUNTRY:	UNITED STATES
LEGAL ORG NAME:	Puglia Engineering Inc dba Fairhaven Shi
LEGAL ORG TYPE:	Private
LEGAL ADDR LINE1:	2216 E 11ST ST
LEGAL CITY,ST,ZIP:	TACOMA, WA 98421
LEGAL COUNTRY:	UNITED STATES
LEGAL PHONE NBR:	253-627-7232
LEGAL EFFECTIVE DATE:	09/12/02
LAND ORG NAME:	Bellingham Port
LAND ORG TYPE:	County
LAND PERSON NAME:	Not reported
LAND ADDR LINE1:	PO Box 1677
LAND CITY,ST,ZIP:	BELLINGHAM, WA 98227-1677
LAND COUNTRY:	UNITED STATES
LAND PHONE NBR:	(360)676-2500 307
OPERATOR ORG NAME:	Not reported
OPERATOR ORG TYPE:	Private
OPERATOR ADDR LINE1:	2216 E 11TH ST
OPERATOR CITY,ST,ZIP:	TACOMA, WA 98421
OPERATOR COUNTRY:	UNITED STATES
OPERATOR PHONE NBR:	(253)627-7232
OPERATOR EFFECTIVE DATE:	09/12/02
SITE CONTACT NAME:	Phil Moses
SITE CONTACT ADDR LINE1:	201 HARRIS AVE
SITE CONTACT ADDR LINE2:	BLDG A
SITE CONTACT ZIP:	BELLINGHAM, WA 98225
SITE CONTACT COUNTRY:	UNITED STATES
SITE CONTACT PHONE NBR:	(360)647-0879, ext 213
SITE CONTACT EMAIL:	pmoses@fhshipyard.com
FORM CONTACT NAME:	Phil Moses
FORM CONTACT ADDR LINE1:	201 Harris Avenue
FORM CONTACT ADDR LINE2:	Building A
FORM CONTACT CITY,ST,ZIP:	Bellingham, WA 98225
FORM CONTACT COUNTRY:	UNITED STATES
FORM CONTACT PHONE NBR:	(360)647-0080, ext 213
FORM CONTACT EMAIL:	pmoses@fhshipyard.com
GEN STATUS CD:	MQG
MONTHLY GENERATION:	True
BATCH GENERATION:	False
ONE TIME GENERATION:	False
TRANSPORTS OWN WASTE:	False
TRANSPORTS OTHRS WASTE:	False
RECYCLER ONSITE:	False

PUGLIA ENGINEERINGINC DBA FAIRHAVEN SHIP (Continued) **1007265215**

TRANSFER FACILITY: False
OTHER EXEMPTION: Not reported
UW BATTERY GEN: False
USED OIL TRANSPORTER: False
USED OIL TRANSFER FACLTY: False
USED OIL PROCESSOR: False
USED OIL REREFINER: False
USED OIL FUEL MRKTR DIRECTS SHPMNTS: False
USED OIL FUEL MRKTR MEETS SPECS: False

B8 **MARITIME CONTRACTORS INC** **UST** **U004020834**
North **201 HARRIS AVENUE** **N/A**
< 1/8 **BELLINGHAM, WA 98225**
275 ft.

Site 3 of 7 in cluster B

Relative: Lower

Actual: 16 ft.

UST:
Facility ID: 2922
Site ID: 354
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 2
Substance: Not reported
Compartment #: 1
Tank ID: 31297
Comartment ID: 31746
Decimal Latitude: 48.72007
Decimal Longitude: -122.51348
Ecology Region: North Western

Facility ID: 2922
Site ID: 354
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 1
Substance: Leaded Gasoline
Compartment #: 1
Tank ID: 31171
Comartment ID: 31618
Decimal Latitude: 48.72007
Decimal Longitude: -122.51348
Ecology Region: North Western

B9 **BELLINGHAM PORT HARRIS AVE SHIPYARD** **CSCSL SPILLS** **S105831713**
North **201 HARRIS AVE** **N/A**
< 1/8 **BELLINGHAM, WA 98225**
275 ft.

Site 4 of 7 in cluster B

Relative: Lower

Actual: 16 ft.

SHWS:
Facility ID: 2922
MTBE Code: Not reported
Prog plan code : 2
UXO Code : Not reported
Lat/Long : 48.72007 / -122.51348

BELLINGHAM PORT HARRIS AVE SHIPYARD (Continued) **S105831713**

Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Remedial Action in progress
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Ground Water
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Suspected to be present
Metals - Other non-priority pollutant medals:	Suspected to be present
Polychlorinated biPhenyls (PCBs):	Suspected to be present
Pesticides:	Not reported
Petroleum Products:	Not reported
Phenolic Compounds:	Not reported
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Suspected to be present
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long :	48˚ 43´ 12˝ / 122˚ 30´ 48˝
Media Id :	4888
Media Type Description :	Groundwater
Media Status Description :	Suspected
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

Facility ID: 2922
MTBE Code: Not reported
Prog plan code : 2
UXO Code : Not reported
Lat/Long : 48.72007 / -122.51348
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Remedial Action in progress
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Surface Water
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Suspected to be present
Metals - Other non-priority pollutant medals:	Suspected to be present

BELLINGHAM PORT HARRIS AVE SHIPYARD (Continued) **S105831713**

Polychlorinated biPhenyls (PCBs):	Suspected to be present
Pesticides:	Not reported
Petroleum Products:	Not reported
Phenolic Compounds:	Suspected to be present
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Suspected to be present
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 48˝	
Media Id :	4889
Media Type Description :	Surface Water
Media Status Description :	Suspected
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

Facility ID: 2922
MTBE Code: Not reported
Prog plan code : 2
UXO Code : Not reported
Lat/Long : 48.72007 / -122.51348
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Remedial Action in progress
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Soil
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Confirmed above MTCA cleanup levels
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Confirmed above MTCA cleanup levels
Metals - Other non-priority pollutant medals:	Confirmed above MTCA cleanup levels
Polychlorinated biPhenyls (PCBs):	Confirmed above MTCA cleanup levels
Pesticides:	Not reported
Petroleum Products:	Not reported
Phenolic Compounds:	Not reported
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Confirmed above MTCA cleanup levels
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 48˝	
Media Id :	4890

BELLINGHAM PORT HARRIS AVE SHIPYARD (Continued) **S105831713**

Media Type Description : Soil
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2922
MTBE Code: Not reported
Prog plan code : 2
UXO Code : Not reported
Lat/Long : 48.72007 / -122.51348
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Remedial Action in progress
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Sediments
Arsenic Code: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Confirmed above MTCA cleanup levels
Metals - Other non-priority pollutant medals: Confirmed above MTCA cleanup levels
Polychlorinated biPhenyls (PCBs): Confirmed above MTCA cleanup levels
Pesticides: Not reported
Petroleum Products: Not reported
Phenolic Compounds: Confirmed above MTCA cleanup levels
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48° 43´ 12˝ / 122° 30´ 48˝
Media Id : 4891
Media Type Description : Sediment
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

WA SPILL:
Facility ID: 551692
Material Desc : PETROLEUM - DIESEL FUEL
Medium: SOIL
Material Qty: 0
Material Units: GALLON
Date Received: 2005-11-08 00:00:00

BELLINGHAM PORT HARRIS AVE SHIPYARD (Continued) **S105831713**

Contact Name: Moses
Company Name: Not reported

Facility ID: 551992
Material Desc : UNKNOWN
Medium: SURFACE WATER-MARINE
Material Qty: 1
Material Units: SHEEN
Date Received: 2005-11-28 00:00:00
Contact Name: UNK
Company Name: Not reported

B10 **ARROWAC FISHERIES INC** **RCRA-SQG** **1000343958**
North **207 HARRIS AVE** **FINDS** **WAD153804331**
< 1/8 **BELLINGHAM, WA 98225** **UST**
275 ft. **MANIFEST**

Site 5 of 7 in cluster B

Relative:
Lower

Actual:
16 ft.

RCRAInfo:
Owner: ARROWAC FISHERIES INC
(206)282-5655
EPA ID: WAD153804331

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

WA MANIFEST:
Facility Site ID Number: 76654464
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
"Other marketers (i.e., blender, distributor, etc.)": False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False

ARROWAC FISHERIES INC (Continued) **1000343958**

Universal waste - mercury - generate:	False
Universal waste - lamps - generate:	False
Universal waste - batteries - accumulate:	False
Universal waste - thermostats - accumulate:	False
Universal waste - mercury - accumulate:	False
Universal waste - lamps - accumulate:	False
Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
EPA ID:	WAD153804331
Facility Address 2:	Not reported
TAX REG NBR:	600283945
NAICS CD:	311712
BUSINESS TYPE:	Not reported
MAIL NAME:	Arrowac Fisheries Inc
MAIL ADDR LINE1:	PO Box 4155
MAIL CITY,ST,ZIP:	BELLINGHAM, WA 98227-4155
MAIL COUNTRY:	UNITED STATES
LEGAL ORG NAME:	Arrowac Fisheries Inc
LEGAL ORG TYPE:	Private
LEGAL ADDR LINE1:	4039 21ST AVE W STE 200
LEGAL CITY,ST,ZIP:	SEATTLE, WA 98199-1252
LEGAL COUNTRY:	UNITED STATES
LEGAL PHONE NBR:	(206)282-5655
LEGAL EFFECTIVE DATE:	08/16/96
LAND ORG NAME:	Port of Bellingham
LAND ORG TYPE:	State
LAND PERSON NAME:	Not reported
LAND ADDR LINE1:	625 CORNWALL AVE
LAND CITY,ST,ZIP:	BELLINGHAM, WA 98225-5017
LAND COUNTRY:	UNITED STATES
LAND PHONE NBR:	(360)676-2500
OPERATOR ORG NAME:	Arrowac Fisheries Inc
OPERATOR ORG TYPE:	Private
OPERATOR ADDR LINE1:	PO Box 4155
OPERATOR CITY,ST,ZIP:	BELLINGHAM, WA 98227-4155
OPERATOR COUNTRY:	UNITED STATES
OPERATOR PHONE NBR:	360-676-1606
OPERATOR EFFECTIVE DATE:	01/01/97
SITE CONTACT NAME:	R A Blore
SITE CONTACT ADDR LINE1:	207 HARRIS AVE
SITE CONTACT ZIP:	BELLINGHAM, WA 98225-7018
SITE CONTACT COUNTRY:	UNITED STATES
SITE CONTACT PHONE NBR:	(360)676-1606
SITE CONTACT EMAIL:	tony@arrowac-merco.com
FORM CONTACT NAME:	R A Blore
FORM CONTACT ADDR LINE1:	207 HARRIS AVE
FORM CONTACT CITY,ST,ZIP:	BELLINGHAM, WA 98225-7018
FORM CONTACT COUNTRY:	UNITED STATES
FORM CONTACT PHONE NBR:	(360)676-1606
FORM CONTACT EMAIL:	tony@arrowac-merco.com
GEN STATUS CD:	XQG
MONTHLY GENERATION:	False
BATCH GENERATION:	False
ONE TIME GENERATION:	False
TRANSPORTS OWN WASTE:	False

ARROWAC FISHERIES INC (Continued) **1000343958**

TRANSPORTS OTHRS WASTE: False
RECYCLER ONSITE: False
TRANSFER FACILITY: False
OTHER EXEMPTION: Not reported
UW BATTERY GEN: False
USED OIL TRANSPORTER: False
USED OIL TRANSFER FACLTY: False
USED OIL PROCESSOR: False
USED OIL REREFINER: False
USED OIL FUEL MRKTR DIRECTS SHPMNTS: False
USED OIL FUEL MRKTR MEETS SPECS: False

UST:
Facility ID: 2504
Site ID: 5151
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 1
Substance: Unleaded Gasoline
Compartment #: 1
Tank ID: 20690
Comartment ID: 20995
Decimal Latitude: 47.69672
Decimal Longitude: -122.29166
Ecology Region: North Western

Facility ID: 2504
Site ID: 5151
Install Date: 12/31/1964 00:00:00
Capacity: 111 TO 1,100 Gallons
Status: Removed
Tank Name: 4
Substance: Not reported
Compartment #: 1
Tank ID: 20982
Comartment ID: 21288
Decimal Latitude: 47.69672
Decimal Longitude: -122.29166
Ecology Region: North Western

Facility ID: 2504
Site ID: 5151
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 5
Substance: Used Oil/Waste Oil
Compartment #: 1
Tank ID: 20722
Comartment ID: 21027
Decimal Latitude: 47.69672
Decimal Longitude: -122.29166
Ecology Region: North Western

ARROWAC FISHERIES INC (Continued) **1000343958**

Facility ID:	2504
Site ID:	5151
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	2
Substance:	Leaded Gasoline
Compartment #:	1
Tank ID:	20883
Comartment ID:	21188
Decimal Latitude:	47.69672
Decimal Longitude:	-122.29166
Ecology Region:	North Western

Facility ID:	2504
Site ID:	5151
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	3
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	20813
Comartment ID:	21118
Decimal Latitude:	47.69672
Decimal Longitude:	-122.29166
Ecology Region:	North Western

B11 **ARROWAC FISHERIES** **UST** **U004021212**
North **207 HARRIS** **N/A**
< 1/8 **BELLINGHAM, WA 98225**
275 ft.

Site 6 of 7 in cluster B

Relative:
Lower

Actual:
16 ft.

UST:

Facility ID:	76654464
Site ID:	2504
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Closed in Place
Tank Name:	2
Substance:	Not reported
Compartment #:	1
Tank ID:	26156
Comartment ID:	26514
Decimal Latitude:	48.71975
Decimal Longitude:	-122.51320
Ecology Region:	North Western

ARROWAC FISHERIES (Continued) **U004021212**

Facility ID:	76654464
Site ID:	2504
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Closed in Place
Tank Name:	3
Substance:	Not reported
Compartment #:	1
Tank ID:	26324
Comartment ID:	26683
Decimal Latitude:	48.71975
Decimal Longitude:	-122.51320
Ecology Region:	North Western

Facility ID:	76654464
Site ID:	2504
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Closed in Place
Tank Name:	1
Substance:	Not reported
Compartment #:	1
Tank ID:	26397
Comartment ID:	26756
Decimal Latitude:	48.71975
Decimal Longitude:	-122.51320
Ecology Region:	North Western

B12
North
< 1/8
275 ft.

Relative:
Lower

Actual:
16 ft.

SOUTH TERMINAL **UST** **U001122700**
215 HARRIS **N/A**
BELLINGHAM, WA 98225

Site 7 of 7 in cluster B

UST:

Facility ID:	56558126
Site ID:	2329
Install Date:	12/31/1964 00:00:00
Capacity:	111 TO 1,100 Gallons
Status:	Removed
Tank Name:	SO. T. FUEL
Substance:	Leaded Gasoline
Compartment #:	1
Tank ID:	14517
Comartment ID:	14741
Decimal Latitude:	48.71975
Decimal Longitude:	-122.51317
Ecology Region:	North Western

C13
North
< 1/8
279 ft.

Relative:
Lower

Actual:
17 ft.

ALASKA MARINE HIGHWAY SYSTEM
365 HARRIS AVE
BELLINGHAM, WA 98225

Site 1 of 3 in cluster C

RCRA-SQG
FINDS
MANIFEST

1000659034
WAD988486965

RCRAInfo:
Owner: ALASKA MARINE HIGHWAY SYSTEM
EPA ID: WAD988486965
Contact: Not reported
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

WA MANIFEST:

Facility Site ID Number:	4462588
Permit by Rule:	False
Treatment by Generator:	False
Mixed radioactive waste:	False
Importer of hazardous waste:	False
Immediate recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of dangerous fuel waste:	False
Generator marketing to burner:	False
"Other marketers (i.e., blender, distributor, etc.)":	False
Utility boiler burner:	False
Industry boiler burner:	False
Industrial Furnace:	False
Smelter defferal:	False
Universal waste - batteries - generate:	False
Universal waste - thermostats - generate:	False
Universal waste - mercury - generate:	False
Universal waste - lamps - generate:	False
Universal waste - batteries - accumulate:	False
Universal waste - thermostats - accumulate:	False
Universal waste - mercury - accumulate:	False
Universal waste - lamps - accumulate:	False
Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
EPA ID:	WAD988486965
Facility Address 2:	Not reported
TAX REG NBR:	601026561
NAICS CD:	483113

ALASKA MARINE HIGHWAY SYSTEM (Continued) **1000659034**

BUSINESS TYPE:	Not reported
MAIL NAME:	Alaska Marine Highway System
MAIL ADDR LINE1:	365 HARRIS AVE
MAIL CITY,ST,ZIP:	BELLINGHAM, WA 98225-7020
MAIL COUNTRY:	UNITED STATES
LEGAL ORG NAME:	Alaska Marine Highway System
LEGAL ORG TYPE:	Private
LEGAL ADDR LINE1:	365 HARRIS AVE
LEGAL CITY,ST,ZIP:	BELLINGHAM, WA 98225-7020
LEGAL COUNTRY:	UNITED STATES
LEGAL PHONE NBR:	360-676-8445
LEGAL EFFECTIVE DATE:	05/02/96
LAND ORG NAME:	Port of Bellingham
LAND ORG TYPE:	Municipal
LAND PERSON NAME:	Not reported
LAND ADDR LINE1:	625 CORNWALL AVE
LAND CITY,ST,ZIP:	BELLINGHAM, WA 98225-5017
LAND COUNTRY:	UNITED STATES
LAND PHONE NBR:	(360)676-2500
OPERATOR ORG NAME:	Not reported
OPERATOR ORG TYPE:	Private
OPERATOR ADDR LINE1:	625 CORNWALL AVE
OPERATOR CITY,ST,ZIP:	BELLINGHAM, WA 98225-5017
OPERATOR COUNTRY:	UNITED STATES
OPERATOR PHONE NBR:	(360)676-2500
OPERATOR EFFECTIVE DATE:	05/07/97
SITE CONTACT NAME:	Mike Stoner
SITE CONTACT ADDR LINE1:	625 CORNWALL AVE
SITE CONTACT ZIP:	BELLINGHAM, WA 98225-5017
SITE CONTACT COUNTRY:	UNITED STATES
SITE CONTACT PHONE NBR:	(360)676-2500
SITE CONTACT EMAIL:	Not reported
FORM CONTACT NAME:	Kent Miller
FORM CONTACT ADDR LINE1:	PO Box 1677
FORM CONTACT CITY,ST,ZIP:	BELLINGHAM, WA 98227-1677
FORM CONTACT COUNTRY:	UNITED STATES
FORM CONTACT PHONE NBR:	(360)647-8056
FORM CONTACT EMAIL:	Not reported
GEN STATUS CD:	XQG
MONTHLY GENERATION:	False
BATCH GENERATION:	False
ONE TIME GENERATION:	False
TRANSPORTS OWN WASTE:	False
TRANSPORTS OTHRS WASTE:	False
RECYCLER ONSITE:	False
TRANSFER FACILITY:	False
OTHER EXEMPTION:	Not reported
UW BATTERY GEN:	False
USED OIL TRANSPORTER:	False
USED OIL TRANSFER FACLTY:	False
USED OIL PROCESSOR:	False
USED OIL REREFINER:	False
USED OIL FUEL MRKTR DIRECTS SHPMNTS:	False
USED OIL FUEL MRKTR MEETS SPECS:	False

C14 **FOURTH AND HARRIS PROPERTY/PORT OF BELLINGHAM** **CSCSL** **S100080205**
North **4TH / HARRIS** **ICR** **N/A**
< 1/8 **BELLINGHAM, WA 98225**
280 ft.

Site 2 of 3 in cluster C

Relative:
Lower

Actual:
17 ft.

SHWS:
Facility ID: 2887
MTBE Code: Not reported
Prog plan code : 4
UXO Code : Not reported
Lat/Long : 48.72016 / -122.51139000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Final Independent Remedial Action Report received
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Ground Water
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Confirmed above MTCA cleanup levels
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 41˝
Media Id : 4754
Media Type Description : Groundwater
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2887
MTBE Code: Not reported
Prog plan code : 4
UXO Code : Not reported
Lat/Long : 48.72016 / -122.51139000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Final Independent Remedial Action Report received

FOURTH AND HARRIS PROPERTY/PORT OF BELLINGHAM (Continued) **S100080205**

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Soil
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Confirmed above MTCA cleanup levels
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48° 43´ 12˝ / 122° 30´ 41˝
Media Id : 4755
Media Type Description : Soil
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2887
MTBE Code: Not reported
Prog plan code : 4
UXO Code : Not reported
Lat/Long : 48.72016 / -122.51139000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Final Independent Remedial Action Report received
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Air
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Suspected to be present
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported

FOURTH AND HARRIS PROPERTY/PORT OF BELLINGHAM (Continued) **S100080205**

Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 41˝
Media Id : 4757
Media Type Description : Air
Media Status Description : Suspected
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2887
MTBE Code: Not reported
Prog plan code : 4
UXO Code : Not reported
Lat/Long : 48.72016 / -122.51139000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Final Independent Remedial Action Report received
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Sediments
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Suspected to be present
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 41˝
Media Id : 4758
Media Type Description : Sediment
Media Status Description : Suspected
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported

FOURTH AND HARRIS PROPERTY/PORT OF BELLINGHAM (Continued) **S100080205**

Other Deleterious Substance Group : Not reported

Facility ID: 2887
MTBE Code: Not reported
Prog plan code : 4
UXO Code : Not reported
Lat/Long : 48.72016 / -122.51139000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Final Independent Remedial Action Report received
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Surface Water
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Suspected to be present
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 41˝
Media Id : 4756
Media Type Description : Surface Water
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

WA ICR:
Date Ecology Received Report: 07/02/1993
Contaminants Found at Site: Metals
Solvents
Petroleum products
Media Contaminated: Groundwater, Soil
Cause of Contamination: Not reported
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 93-04
County Code: 37.00000
Contact: Not reported
Report Title: Not reported

C15 **PORT OF BELLINGHAM 4TH & HARRIS** **FINDS** **1007080203**
North **4TH & HARRIS** **VCP** **110015569213**
< 1/8 **BELLINGHAM, WA 98225**
280 ft.

Site 3 of 3 in cluster C

Relative:
Lower

Actual:
17 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

VCP:

Facility ID :	2887
WARM BIN # :	Not reported
Ecology Status :	Independent Remedial Action
NFA Code :	Not reported
Program Plan Code :	4

Facility ID :	2887
WARM BIN # :	Not reported
Ecology Status :	Independent Remedial Action
NFA Code :	Not reported
Program Plan Code :	4

Facility ID :	2887
WARM BIN # :	Not reported
Ecology Status :	Independent Remedial Action
NFA Code :	Not reported
Program Plan Code :	4

Facility ID :	2887
WARM BIN # :	Not reported
Ecology Status :	Independent Remedial Action
NFA Code :	Not reported
Program Plan Code :	4

Facility ID :	2887
WARM BIN # :	Not reported
Ecology Status :	Independent Remedial Action
NFA Code :	Not reported
Program Plan Code :	4

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16 **GLACIER DISTRIBUTING COMPANY, INC.** **UST** **U000588297**
NE **300 HARRIS AVENUE - P.O. BOX C** **N/A**
< 1/8 **BELLINGHAM, WA 98227**
441 ft.

Relative:
Lower

Actual:
15 ft.

UST:

Facility ID:	40899327
Site ID:	3257
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	1
Substance:	Not reported
Compartment #:	1
Tank ID:	27614
Comartment ID:	27986

GLACIER DISTRIBUTING COMPANY, INC. (Continued) **U000588297**

Decimal Latitude: 48.71976
Decimal Longitude: -122.51287
Ecology Region: North Western

D17 **UNICRAFT MARINE PRODUCTS INC** **RCRA-SQG** **1000878483**
ENE **801 HARRIS AVE BLDG 2** **FINDS** **WA0000067488**
1/8-1/4 **BELLINGHAM, WA 98225**
1219 ft.

Site 1 of 6 in cluster D

Relative:
Lower

Actual:
23 ft.

RCRAInfo:
Owner: UNICRAFT MARINE PRODUCTS INC
(360)734-2285
EPA ID: WA0000067488

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

D18 **EX-MURRAY CRIS CRAFT BOAT YARD** **UST** **U004040968**
ENE **809 HARRIS AVE** **N/A**
1/8-1/4 **BELLINGHAM, WA 98225**
1238 ft.

Site 2 of 6 in cluster D

Relative:
Lower

Actual:
24 ft.

UST:
Facility ID: 54112561
Site ID: 3971
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Closure in Process
Tank Name: 2R
Substance: Not reported
Compartment #: 1
Tank ID: 14519
Comartment ID: 14743
Decimal Latitude: 48.72021
Decimal Longitude: -122.50671
Ecology Region: North Western

EX-MURRAY CRIS CRAFT BOAT YARD (Continued) **U004040968**

Facility ID: 54112561
Site ID: 3971
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 3
Substance: Not reported
Compartment #: 1
Tank ID: 6502
Comartment ID: 6615
Decimal Latitude: 48.72021
Decimal Longitude: -122.50671
Ecology Region: North Western

Facility ID: 54112561
Site ID: 3971
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 5
Substance: Leaded Gasoline
Compartment #: 1
Tank ID: 6531
Comartment ID: 6644
Decimal Latitude: 48.72021
Decimal Longitude: -122.50671
Ecology Region: North Western

Facility ID: 54112561
Site ID: 3971
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 1
Substance: Not reported
Compartment #: 1
Tank ID: 6539
Comartment ID: 6652
Decimal Latitude: 48.72021
Decimal Longitude: -122.50671
Ecology Region: North Western

Facility ID: 54112561
Site ID: 3971
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 4
Substance: Leaded Gasoline
Compartment #: 1
Tank ID: 6592
Comartment ID: 6705
Decimal Latitude: 48.72021
Decimal Longitude: -122.50671
Ecology Region: North Western

EX-MURRAY CRIS CRAFT BOAT YARD (Continued) **U004040968**

Facility ID:	54112561
Site ID:	3971
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	2
Substance:	Leaded Gasoline
Compartment #:	1
Tank ID:	6637
Comartment ID:	6750
Decimal Latitude:	48.72021
Decimal Longitude:	-122.50671
Ecology Region:	North Western

Facility ID:	54112561
Site ID:	3971
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Closure in Process
Tank Name:	1R
Substance:	Leaded Gasoline
Compartment #:	1
Tank ID:	21612
Comartment ID:	21923
Decimal Latitude:	48.72021
Decimal Longitude:	-122.50671
Ecology Region:	North Western

D19
ENE
1/8-1/4
1238 ft.

Relative: Lower

Actual: 24 ft.

PADDEN CREEK MARINE INC
809 HARRIS AVE BLDGS 7 8 9
BELLINGHAM, WA 98225

RCRA-SQG **1000659397**
FINDS **WAD988490678**
MANIFEST
HAZNET

Site 3 of 6 in cluster D

RCRAInfo:

Owner:	PADDEN CREEK MARINE INC
	(360)733-6248
EPA ID:	WAD988490678
Contact:	Not reported
Classification:	Conditionally Exempt Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: Violations exist

Regulation Violated:	-170(1)(a)
Area of Violation:	GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined:	02/04/2004
Actual Date Achieved Compliance:	06/15/2004
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	02/11/2004
Penalty Type:	Not reported

Regulation Violated:	-141(1)
Area of Violation:	GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined:	02/04/2004
Actual Date Achieved Compliance:	02/20/2004
Enforcement Action:	WRITTEN INFORMAL

PADDEN CREEK MARINE INC (Continued) **1000659397**

Enforcement Action Date: 02/11/2004
Penalty Type: Not reported

Regulation Violated: -200(1)(c) / -170(2)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 02/04/2004
Actual Date Achieved Compliance: 02/20/2004

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 02/11/2004
Penalty Type: Not reported

There are 3 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	20040615
	GENERATOR-GENERAL REQUIREMENTS	20040220
	GENERATOR-GENERAL REQUIREMENTS	20040220

FINDS:

Other Pertinent Environmental Activity Identified at Site:

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

WA MANIFEST:

Facility Site ID Number: 25217412
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
"Other marketers (i.e., blender, distributor, etc.)": False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False

PADDEN CREEK MARINE INC (Continued) **1000659397**

Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
EPA ID:	WAD988490678
Facility Address 2:	Not reported
TAX REG NBR:	601261693
NAICS CD:	336612
BUSINESS TYPE:	boat yard
MAIL NAME:	Padden Creek Marine
MAIL ADDR LINE1:	809 Harris Ave
MAIL CITY,ST,ZIP:	BELLINGHAM, WA 98225-7067
MAIL COUNTRY:	UNITED STATES
LEGAL ORG NAME:	Not reported
LEGAL ORG TYPE:	Private
LEGAL ADDR LINE1:	809 Harris Ave
LEGAL CITY,ST,ZIP:	BELLINGHAM, WA 98225-7067
LEGAL COUNTRY:	UNITED STATES
LEGAL PHONE NBR:	(360)733-6248
LEGAL EFFECTIVE DATE:	07/13/90
LAND ORG NAME:	Port of Bellingham
LAND ORG TYPE:	Municipal
LAND PERSON NAME:	Not reported
LAND ADDR LINE1:	1801 Roeder Ave
LAND CITY,ST,ZIP:	BELLINGHAM, WA 98227-1677
LAND COUNTRY:	UNITED STATES
LAND PHONE NBR:	(360)676-2500
OPERATOR ORG NAME:	PADDEN CREEK MARINE INC
OPERATOR ORG TYPE:	Private
OPERATOR ADDR LINE1:	PO Box 4177
OPERATOR CITY,ST,ZIP:	BELLINGHAM, WA 98227-4177
OPERATOR COUNTRY:	UNITED STATES
OPERATOR PHONE NBR:	(360)733-6248
OPERATOR EFFECTIVE DATE:	08/27/93
SITE CONTACT NAME:	Sally Knox
SITE CONTACT ADDR LINE1:	809 Harris Ave
SITE CONTACT ZIP:	BELLINGHAM, WA 98225-7067
SITE CONTACT COUNTRY:	UNITED STATES
SITE CONTACT PHONE NBR:	(360)733-6248
SITE CONTACT EMAIL:	Not reported
FORM CONTACT NAME:	Sally Knox
FORM CONTACT ADDR LINE1:	809 Harris Ave
FORM CONTACT CITY,ST,ZIP:	BELLINGHAM, WA 98225-7067
FORM CONTACT COUNTRY:	UNITED STATES
FORM CONTACT PHONE NBR:	(360)733-6248
FORM CONTACT EMAIL:	Not reported
GEN STATUS CD:	SQG
MONTHLY GENERATION:	True
BATCH GENERATION:	False
ONE TIME GENERATION:	False
TRANSPORTS OWN WASTE:	False
TRANSPORTS OTHRS WASTE:	False
RECYCLER ONSITE:	False
TRANSFER FACILITY:	False
OTHER EXEMPTION:	Not reported
UW BATTERY GEN:	False
USED OIL TRANSPORTER:	False

PADDEN CREEK MARINE INC (Continued) **1000659397**

USED OIL TRANSFER FACLTY: False
USED OIL PROCESSOR: False
USED OIL REREFINER: False
USED OIL FUEL MRKTR DIRECTS SHPMNTS: False
USED OIL FUEL MRKTR MEETS SPECS: False

HAZNET:
Gepaid: WAD988490678
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Sacramento
Tons: 0.68
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Disposal, Other
Contact: GRIFFITH, BRIAN OR KNOX, SALLY
Telephone: (360) 733-6248
Mailing Name: Not reported
Mailing Address: 809 HARRIS AVE BLDGS 7 8 9
BELLINGHAM, WA 98225 - 7067
County Not reported

D20 **EX-MURRAY CRIS CRAFT BOAT YARD** **LUST** **U000588919**
ENE **809 HARRIS AVE** **N/A**
1/8-1/4 **BELLINGHAM, WA 98225**
1238 ft.

Site 4 of 6 in cluster D

Relative:
Lower

Actual:
24 ft.

LUST:
Facility ID: 3971
Facility Status: Cleanup Started
Release ID: 5182
Release Notification Date: 3/8/1994 00:00:00
Release Status Date: 6/1/1995 00:00:00
Alternate Name: BELLINGHAM PORT EX-CHRIS CRAFT BOAT
Lat/Lon: 48.72021 / -122.50671
Affected Media: Soil
FS ID: 54112561
Site Response Code Unit: NW

Facility ID: 3971
Facility Status: Cleanup Started
Release ID: 5182
Release Notification Date: 3/8/1994 00:00:00
Release Status Date: 6/1/1995 00:00:00
Alternate Name: BELLINGHAM PORT EX-CHRIS CRAFT BOAT
Lat/Lon: 48.72021 / -122.50671
Affected Media: Ground Water
FS ID: 54112561
Site Response Code Unit: NW

D21 **AQUASTAR USA CORP** **RCRA-SQG** **1000839008**
ENE **809 HARRIS AVE** **WAD988518288**
1/8-1/4 **BELLINGHAM, WA 98225**
1238 ft.

Site 5 of 6 in cluster D

Relative:
Lower

RCRAInfo:
Owner: AQUASTAR USA CORP
Actual: EPA ID: WAD988518288
24 ft.
Contact: CHIA MCMAHON
(360)676-4704
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

D22 **BELLINGHAM PORT (FORMER CHRIS CRAFT BOAT)** **ICR** **S103505557**
ENE **809 HARRIS AVE.** **N/A**
1/8-1/4 **BELLINGHAM, WA 98225**
1238 ft.

Site 6 of 6 in cluster D

Relative:
Lower

WA ICR:

Date Ecology Received Report:	01/06/1995
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	93-42
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

Actual:
24 ft.

Date Ecology Received Report:	03/22/1994
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	93-23
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

---

23 **TOLLYCRAFT YACHTS CORPORATION** **CSCSL** **1000229642**
ENE **9TH STREET & HARRIS AVENUE** **FINDS** **WAD009250564**
1/4-1/2 **BELLINGHAM, WA 98227** **RCRA-LQG**
1461 ft. **CERC-NFRAP**

Relative:
Higher

CERCLIS-NFRAP Classification Data:
Federal Facility: Not a Federal Facility
Non NPL Code: NFRAP
Actual: NPL Status: Not on the NPL
37 ft.
CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	07/01/1979
Assessment:	PRELIMINARY ASSESSMENT	Completed:	06/10/1985
Assessment:	SITE INSPECTION	Completed:	10/10/1988

TOLLYCRAFT YACHTS CORPORATION (Continued) **1000229642**

Assessment: ARCHIVE SITE Completed: 10/10/1988
CERCLIS-NFRAP Alias Name(s):
CHRIS CRAFT INDUSTRIES

RCRAInfo:
Owner: TOLLYCRAFT YACHTS
EPA ID: WAD009250564

Contact: Not reported

Classification: Large Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

WA-DOEFSIS (Washington - Department Of Ecology Facility / Site Identification System) is the Department of Ecology's Facility/Site identification system that provides a means to query and display data maintained by the Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the departments Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

SHWS:
Facility ID: 2877
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.720219999999998 / -122.50579999999999
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Sediments
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Not reported
Metals - Other non-priority pollutant medals:	Not reported
Polychlorinated biPhenyls (PCBs):	Not reported
Pesticides:	Not reported
Petroleum Products:	Suspected to be present
Phenolic Compounds:	Suspected to be present
Non-Halogenated Solvents:	Suspected to be present
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Not reported

TOLLYCRAFT YACHTS CORPORATION (Continued) **1000229642**

Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 20˝
Media Id : 4725
Media Type Description : Sediment
Media Status Description : Suspected
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2877
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.720219999999998 / -122.50579999999999
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Ground Water
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Confirmed above MTCA cleanup levels
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Not reported
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 20˝
Media Id : 4723
Media Type Description : Groundwater
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

TOLLYCRAFT YACHTS CORPORATION (Continued) **1000229642**

Facility ID: 2877
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.720219999999998 / -122.50579999999999
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Surface Water
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Not reported
Metals - Other non-priority pollutant medals:	Not reported
Polychlorinated biPhenyls (PCBs):	Not reported
Pesticides:	Not reported
Petroleum Products:	Suspected to be present
Phenolic Compounds:	Suspected to be present
Non-Halogenated Solvents:	Suspected to be present
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Not reported
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported

Lat/Long : 48˚ 43´ 12˝ / 122˚ 30´ 20˝
Media Id : 4724
Media Type Description : Surface Water
Media Status Description : Suspected
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2877
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.720219999999998 / -122.50579999999999
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site

TOLLYCRAFT YACHTS CORPORATION (Continued) **1000229642**

Affected Media : Air
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Not reported
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Suspected to be present
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48° 43´ 12˝ / 122° 30´ 20˝
Media Id : 4726
Media Type Description : Air
Media Status Description : Suspected
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2877
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.720219999999998 / -122.50579999999999
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Independent Remedial Action
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Soil
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Suspected to be present
EPA Priority Pollutants - Metals and Cyanide: Not reported
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Not reported
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Suspected to be present
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Not reported
Reactive Wastes: Not reported
Corrosive Wastes: Not reported

TOLLYCRAFT YACHTS CORPORATION (Continued) **1000229642**

Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long :	48° 43´ 12˝ / 122° 30´ 20˝
Media Id :	4727
Media Type Description :	Soil
Media Status Description :	Suspected
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

E24 **YORKY'S GROCERY III** **LUST U003026925**
East **1501 12TH ST** **UST N/A**
1/4-1/2 **BELLINGHAM, WA 98225**
2273 ft.

Site 1 of 2 in cluster E

Relative: Higher

Actual: 103 ft.

LUST:

Facility ID:	434
Facility Status:	Reported Cleaned Up
Release ID:	2487
Release Notification Date:	9/3/1991 00:00:00
Release Status Date:	10/8/1998 00:00:00
Alternate Name:	YORKYS MINI MART
Lat/Lon:	48.718309 / -122.50313
Affected Media:	Soil
FS ID:	86656871
Site Response Code Unit:	NW

UST:

Facility ID:	86656871
Site ID:	434
Install Date:	11/1/1979 00:00:00
Capacity:	5,000 to 9,999 Gallons
Status:	Operational
Tank Name:	4-D/F
Substance:	Diesel
Compartment #:	1
Tank ID:	2462
Comartment ID:	2507
Decimal Latitude:	48.71831
Decimal Longitude:	-122.50313
Ecology Region:	North Western

Facility ID:	86656871
Site ID:	434
Install Date:	11/1/1979 00:00:00
Capacity:	5,000 to 9,999 Gallons
Status:	Operational
Tank Name:	REGULAR
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	6538
Comartment ID:	6651
Decimal Latitude:	48.71831
Decimal Longitude:	-122.50313
Ecology Region:	North Western

YORKY'S GROCERY III (Continued) **U003026925**

Facility ID:	86656871
Site ID:	434
Install Date:	11/1/1979 00:00:00
Capacity:	5,000 to 9,999 Gallons
Status:	Operational
Tank Name:	3-X
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	17860
Comartment ID:	18125
Decimal Latitude:	48.71831
Decimal Longitude:	-122.50313
Ecology Region:	North Western

Facility ID:	86656871
Site ID:	434
Install Date:	11/1/1979 00:00:00
Capacity:	10,000 to 19,999 Gallons
Status:	Operational
Tank Name:	UNLEADED
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	26743
Comartment ID:	27106
Decimal Latitude:	48.71831
Decimal Longitude:	-122.50313
Ecology Region:	North Western

E25
East
1/4-1/2
2273 ft.

Relative:
Higher

Actual:
103 ft.

YORKY'S MINI-MART **ICR** **S105454546**
12TH / LARABEE AVE. **N/A**
BELLINGHAM, WA 98225

Site 2 of 2 in cluster E

WA ICR:

Date Ecology Received Report:	09/03/1991
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-07
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

F26
East
1/4-1/2
2291 ft.

Relative:
Higher

Actual:
103 ft.

STARVIN SAM'S #16/MULJAT PROPERTY **ICR** **S103508340**
1601 12TH ST. **N/A**
BELLINGHAM, WA 98225

Site 1 of 4 in cluster F

WA ICR:

Date Ecology Received Report:	01/30/1992
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Tank

STARVIN SAM'S #16/MULJAT PROPERTY (Continued) **S103508340**

Region:	North Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	92-17
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	03/16/1993
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	93-01
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

F27 **FRANK MULJAT** **LUST U003378415**
East **1601 12TH STREET** **UST N/A**
1/4-1/2 **BELLINGHAM, WA 98225**
2291 ft.

Site 2 of 4 in cluster F

Relative: Higher

Actual: 103 ft.

LUST:

Facility ID:	101486
Facility Status:	Cleanup Started
Release ID:	2850
Release Notification Date:	1/6/1992 00:00:00
Release Status Date:	1/6/1992 00:00:00
Alternate Name:	MULJAT PROPERTY
Lat/Lon:	48.71755 / -122.50208
Affected Media:	Soil
FS ID:	42776441
Site Response Code Unit:	NW
Facility ID:	101486
Facility Status:	Reported Cleaned Up
Release ID:	2850
Release Notification Date:	1/6/1992 00:00:00
Release Status Date:	6/1/1995 00:00:00
Alternate Name:	MULJAT PROPERTY
Lat/Lon:	48.71755 / -122.50208
Affected Media:	Soil
FS ID:	42776441
Site Response Code Unit:	NW

UST:

Facility ID:	42776441
Site ID:	101486
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	3
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	16368
Comartment ID:	16610
Decimal Latitude:	48.71755

FRANK MULJAT (Continued) **U003378415**

Decimal Longitude: -122.50208
Ecology Region: North Western

Facility ID: 42776441
Site ID: 101486
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 2
Substance: Unleaded Gasoline
Compartment #: 1
Tank ID: 16395
Comartment ID: 16638
Decimal Latitude: 48.71755
Decimal Longitude: -122.50208
Ecology Region: North Western

Facility ID: 42776441
Site ID: 101486
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 4
Substance: Used Oil/Waste Oil
Compartment #: 1
Tank ID: 16524
Comartment ID: 16768
Decimal Latitude: 48.71755
Decimal Longitude: -122.50208
Ecology Region: North Western

Facility ID: 42776441
Site ID: 101486
Install Date: 12/31/1964 00:00:00
Capacity: Not reported
Status: Removed
Tank Name: 1
Substance: Unleaded Gasoline
Compartment #: 1
Tank ID: 16241
Comartment ID: 16483
Decimal Latitude: 48.71755
Decimal Longitude: -122.50208
Ecology Region: North Western

F28 **STARVIN SAM'S #16/MULJAT PROPERTY** **ICR** **S103508341**
East **1602 12TH ST.** **N/A**
1/4-1/2 **BELLINGHAM, WA 98225**
2292 ft.

Site 3 of 4 in cluster F

Relative: Higher

Actual: 104 ft.

WA ICR:
Date Ecology Received Report: 02/21/1992
Contaminants Found at Site: Petroleum products
Media Contaminated: Soil
Cause of Contamination: Tank
Region: North Western
Type of Report Ecology Received: Final cleanup report
Site Register Issue: 92-18

STARVIN SAM'S #16/MULJAT PROPERTY (Continued) **S103508341**

County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	/ /
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-38
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	02/24/1992
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-18
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

F29 **STARVIN SAMS #16** **LUST U000591139**
East **1602 12TH ST** **UST N/A**
1/4-1/2 **BELLINGHAM, WA 98225**
2292 ft.

Site 4 of 4 in cluster F

Relative: Higher

Actual: 104 ft.

LUST:

Facility ID:	6507
Facility Status:	Cleanup Started
Release ID:	2287
Release Notification Date:	5/20/1991 00:00:00
Release Status Date:	5/20/1991 00:00:00
Alternate Name:	STARVIN SAMS 16
Lat/Lon:	48.71752 / -122.50232
Affected Media:	Soil
FS ID:	14366428
Site Response Code Unit:	NW
Facility ID:	6507
Facility Status:	Reported Cleaned Up
Release ID:	2287
Release Notification Date:	5/20/1991 00:00:00
Release Status Date:	6/1/1995 00:00:00
Alternate Name:	STARVIN SAMS 16
Lat/Lon:	48.71752 / -122.50232
Affected Media:	Soil
FS ID:	14366428
Site Response Code Unit:	NW

STARVIN SAMS #16 (Continued) **U000591139**

UST:

Facility ID:	14366428
Site ID:	6507
Install Date:	3/27/1992 00:00:00
Capacity:	10,000 to 19,999 Gallons
Status:	Operational
Tank Name:	16-1
Substance:	Leaded Gasoline
Compartment #:	1
Tank ID:	23546
Comartment ID:	23874
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

Facility ID:	14366428
Site ID:	6507
Install Date:	3/27/1992 00:00:00
Capacity:	10,000 to 19,999 Gallons
Status:	Operational
Tank Name:	16-2
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	23733
Comartment ID:	24063
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

Facility ID:	14366428
Site ID:	6507
Install Date:	3/27/1992 00:00:00
Capacity:	10,000 to 19,999 Gallons
Status:	Operational
Tank Name:	16-3
Substance:	Unleaded Gasoline
Compartment #:	1
Tank ID:	23488
Comartment ID:	23814
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

Facility ID:	14366428
Site ID:	6507
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	N
Substance:	Not reported
Compartment #:	1
Tank ID:	19315
Comartment ID:	19598
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

STARVIN SAMS #16 (Continued) **U000591139**

Facility ID:	14366428
Site ID:	6507
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	X
Substance:	Not reported
Compartment #:	1
Tank ID:	19338
Comartment ID:	19621
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

Facility ID:	14366428
Site ID:	6507
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	R
Substance:	Not reported
Compartment #:	1
Tank ID:	19267
Comartment ID:	19550
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

Facility ID:	14366428
Site ID:	6507
Install Date:	12/31/1964 00:00:00
Capacity:	Not reported
Status:	Removed
Tank Name:	DF
Substance:	Not reported
Compartment #:	1
Tank ID:	26967
Comartment ID:	27333
Decimal Latitude:	48.71752
Decimal Longitude:	-122.50232
Ecology Region:	North Western

30
ENE
1/4-1/2
2333 ft.

TEXACO **ICR** **S103512332**
1215 12TH ST. **N/A**
BELLINGHAM, WA 98225

Relative:
Higher

Actual:
99 ft.

WA ICR:

Date Ecology Received Report:	02/22/1996
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Cause of Contamination:	Tank
Region:	North Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	94-38
County Code:	37.00000
Contact:	Not reported
Report Title:	Not reported

31
NNE
1/2-1
3790 ft.

BELLINGHAM BAY GAS CO
S STATE AND BAY VIEW STS
BELLINGHAM, WA 98225

Manufactured Gas Plants

1008408696
N/A

Relative:
Higher

Actual:
74 ft.

32
NNE
1/2-1
4804 ft.

BOULEVARD PARK
BAYVIEW DR
BELLINGHAM, WA 98226

CSCSL

S102519448
N/A

Relative:
Higher

Actual:
96 ft.

SHWS:
Facility ID: 2865
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.731099999999998 / -122.50284000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Ranked, Awaiting Remedial Action (RA)
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Ground Water
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Confirmed above MTCA cleanup levels
Metals - Other non-priority pollutant medals:	Not reported
Polychlorinated biPhenyls (PCBs):	Not reported
Pesticides:	Not reported
Petroleum Products:	Confirmed above MTCA cleanup levels
Phenolic Compounds:	Not reported
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Confirmed above MTCA cleanup levels
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long :	48˚ 43´ 51˝ / 122˚ 30´ 10˝
Media Id :	4688
Media Type Description :	Groundwater
Media Status Description :	Confirmed
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

Facility ID: 2865
MTBE Code: Not reported

BOULEVARD PARK (Continued) **S102519448**

Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.731099999999998 / -122.50284000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Ranked, Awaiting Remedial Action (RA)
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Surface Water
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported
Halogenated Organic Compounds: Not reported
EPA Priority Pollutants - Metals and Cyanide: Confirmed above MTCA cleanup levels
Metals - Other non-priority pollutant medals: Not reported
Polychlorinated biPhenyls (PCBs): Not reported
Pesticides: Not reported
Petroleum Products: Confirmed above MTCA cleanup levels
Phenolic Compounds: Not reported
Non-Halogenated Solvents: Not reported
Dioxin: Not reported
Polynuclear Aromatic Hydrocarbons (PAH): Confirmed above MTCA cleanup levels
Reactive Wastes: Not reported
Corrosive Wastes: Not reported
Radioactive Wastes: Not reported
Asbestos: Not reported
Conventional Contaminants, Organic: Not reported
Conventional Contaminants, Inorganic: Not reported
Lat/Long : 48˚ 43´ 51˝ / 122˚ 30´ 10˝
Media Id : 4689
Media Type Description : Surface Water
Media Status Description : Confirmed
Tibutyl Tin Contaminant Group : Not reported
Bioassay/benthic Failures Contam group : Not reported
Wood Debris Contaminant Group : Not reported
Other Deleterious Substance Group : Not reported

Facility ID: 2865
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.731099999999998 / -122.50284000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Ranked, Awaiting Remedial Action (RA)
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)
Affected Media : Soil
Arsenic Code: Not reported
Base/Neutral/Acid Organics: Not reported

BOULEVARD PARK (Continued) **S102519448**

Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Confirmed above MTCA cleanup levels
Metals - Other non-priority pollutant medals:	Not reported
Polychlorinated biPhenyls (PCBs):	Not reported
Pesticides:	Not reported
Petroleum Products:	Confirmed above MTCA cleanup levels
Phenolic Compounds:	Not reported
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Confirmed above MTCA cleanup levels
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long : 48˚ 43´ 51˝ / 122˚ 30´ 10˝	
Media Id :	4690
Media Type Description :	Soil
Media Status Description :	Confirmed
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

Facility ID: 2865
MTBE Code: Not reported
Prog plan code : Not reported
UXO Code : Not reported
Lat/Long : 48.731099999999998 / -122.50284000000001
Responsible Unit: Northwest Region
Ecology Site Status relative to the MTCA cleanup process:
Ranked, Awaiting Remedial Action (RA)
Independent Site Status - those sites undergoing an independent cleanup:
Not reported
WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):
Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site
Affected Media : Sediments
Arsenic Code: Not reported

Base/Neutral/Acid Organics:	Not reported
Halogenated Organic Compounds:	Not reported
EPA Priority Pollutants - Metals and Cyanide:	Suspected to be present
Metals - Other non-priority pollutant medals:	Not reported
Polychlorinated biPhenyls (PCBs):	Not reported
Pesticides:	Not reported
Petroleum Products:	Suspected to be present
Phenolic Compounds:	Not reported
Non-Halogenated Solvents:	Not reported
Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Suspected to be present
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Suspected to be present

BOULEVARD PARK (Continued) **S102519448**

Conventional Contaminants, Inorganic:	Not reported
Lat/Long :	48° 43´ 51˝ / 122° 30´ 10˝
Media Id :	4691
Media Type Description :	Sediment
Media Status Description :	Suspected
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BELLINGHAM	S104485906	PORT OF BELLINGHAM	4TH ST. AND HARRIS AVE.	98225	ICR
BELLINGHAM	S105225113	OLYMPIC PIPELINE - WHATCOM CREEK INCIDENT	BELLINGHAM WATER TREATMENT PLANT	98225	ICR
BELLINGHAM	1000660036	UNICRAFT PLASTICS INC BELLINGHAM	9TH & HARRIS ST BLDG 10	98225	RCRA-SQG, FINDS
BELLINGHAM	S107565934	EMERALD BAY EVENTS	1013 W HOLLY ST	98225	CSCSL
BELLINGHAM	1007212894	LITTLE SQUALICUM PARK	MARINE VIEW DR	98225	CSCSL, FINDS
BELLINGHAM	1007080168	WHATCOM WATERWAY	W OF HOLLY ST BRIDGE	98225	CSCSL, FINDS, INST CONTROL
BELLINGHAM	S107565910	BELLINGHAM COLD STORAGE PARKING LOT	SE OF 2801 ROEDER AVE	98225	CSCSL
BELLINGHAM	1007067219	HARBOR MARINE FUEL	21 SQUALICUM HARBOR	98225	CSCSL, FINDS, VCP
BELLINGHAM	S105225071	HARBOR MARINE FUEL/BELLINGHAM COLD STORAG	21 SQUALICUM HARBOR	98225	SPILLS, ICR
BELLINGHAM	1007081438	GEORGIA PAC BIO TREATMENT LGN	C ST	98225	CSCSL, FINDS
BELLINGHAM	U004040817	BELLINGHAM NATIONAL BANK	863 N STATE ST	98225	UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

NPL RECOVERY: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/23/2006
Next Scheduled EDR Contact: 08/21/2006
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 03/21/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 23

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 03/21/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 23

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/2006
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/21/2006
Next Scheduled EDR Contact: 09/04/2006
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/09/2006
Date Data Arrived at EDR: 04/27/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 33

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/27/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 01/12/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 40

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Last EDR Contact: 04/26/2006
Next Scheduled EDR Contact: 07/24/2006
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/14/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/21/2006
Date Data Arrived at EDR: 03/27/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/21/2006
Date Data Arrived at EDR: 03/27/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 05/12/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 01/19/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 33

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/26/2006
Date Data Arrived at EDR: 04/27/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/12/2006
Next Scheduled EDR Contact: 09/11/2006
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/2004
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 04/25/2005
Number of Days to Update: 69

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 07/24/2006
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/13/2006
Date Data Arrived at EDR: 04/28/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 32

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/05/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 11/04/2005
Date Data Arrived at EDR: 11/28/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 63

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 07/13/2005
Date Made Active in Reports: 08/17/2005
Number of Days to Update: 35

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/12/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/29/2006
Date Data Arrived at EDR: 04/26/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 34

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 03/31/2006
Date Data Arrived at EDR: 04/26/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 05/11/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 11

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/13/2006
Date Data Arrived at EDR: 04/21/2006
Date Made Active in Reports: 05/11/2006
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/11/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/27/2005
Date Data Arrived at EDR: 02/08/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 19

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 06/02/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/12/2006
Date Data Arrived at EDR: 04/26/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 34

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/09/2006
Date Data Arrived at EDR: 03/29/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 62

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/29/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/27/2006
Date Data Arrived at EDR: 05/02/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 28

Source: EPA
Telephone: N/A
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/05/2006
Next Scheduled EDR Contact: 09/04/2006
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 06/17/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 48

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/17/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

CSCSL: Confirmed & Suspected Contaminated Sites List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/08/2006
Date Data Arrived at EDR: 03/08/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 36

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 05/16/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Semi-Annually

HSL: Hazardous Sites List

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 02/22/2006
Date Data Arrived at EDR: 03/27/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 17

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 06/06/2006
Next Scheduled EDR Contact: 09/04/2006
Data Release Frequency: Semi-Annually

CSCSL NFA: Confirmed & Contaminated Sites - No Further Action

The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead, a No Further Action code is entered based upon the type of NFA determination the site received.

Date of Government Version: 02/09/2006
Date Data Arrived at EDR: 02/14/2006
Date Made Active in Reports: 03/15/2006
Number of Days to Update: 29

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 05/16/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Semi-Annually

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/01/2004
Date Data Arrived at EDR: 01/06/2005
Date Made Active in Reports: 02/02/2005
Number of Days to Update: 27

Source: Department of Ecology
Telephone: 360-407-6132
Last EDR Contact: 04/05/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Annually

SWTIRE: Solid Waste Tire Facilities

This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005
Date Data Arrived at EDR: 03/16/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 28

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 04/05/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Leaking Underground Storage Tanks Site List
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/08/2006
Date Data Arrived at EDR: 03/16/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 28

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 06/14/2006
Next Scheduled EDR Contact: 09/11/2006
Data Release Frequency: Quarterly

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 04/27/2006
Date Data Arrived at EDR: 04/28/2006
Date Made Active in Reports: 06/05/2006
Number of Days to Update: 38

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 06/14/2006
Next Scheduled EDR Contact: 09/11/2006
Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Locations
A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 12/13/2005
Date Data Arrived at EDR: 12/14/2005
Date Made Active in Reports: 01/16/2006
Number of Days to Update: 33

Source: Department of Ecology
Telephone: 360-407-7562
Last EDR Contact: 05/30/2006
Next Scheduled EDR Contact: 08/28/2006
Data Release Frequency: Varies

MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 04/24/2006
Date Made Active in Reports: 05/31/2006
Number of Days to Update: 37

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 05/15/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Annually

SPILLS: Reported Spills
Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 03/29/2006
Date Data Arrived at EDR: 04/13/2006
Date Made Active in Reports: 05/31/2006
Number of Days to Update: 48

Source: Department of Ecology
Telephone: 360-407-7450
Last EDR Contact: 04/12/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Semi-Annually

INST CONTROL: Institutional Control Site List
Sites that have institutional controls.

Date of Government Version: 03/07/2006
Date Data Arrived at EDR: 03/08/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 36

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 06/05/2006
Next Scheduled EDR Contact: 09/04/2006
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites
Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 03/08/2006
Date Data Arrived at EDR: 03/08/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 36

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 05/16/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Varies

ICR: Independent Cleanup Reports

These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

Date of Government Version: 12/01/2002
Date Data Arrived at EDR: 01/03/2003
Date Made Active in Reports: 01/22/2003
Number of Days to Update: 19

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 05/15/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: No Update Planned

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215 and 7216) as hazardous waste generators.

Date of Government Version: 01/12/2006
Date Data Arrived at EDR: 03/23/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 21

Source: Department of Ecology
Telephone: 360-407-6732
Last EDR Contact: 05/15/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Contaminated Site List

Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 02/16/2006
Date Data Arrived at EDR: 03/07/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 37

Source: Department of Health
Telephone: 360-236-3380
Last EDR Contact: 06/07/2006
Next Scheduled EDR Contact: 09/04/2006
Data Release Frequency: Varies

EMI: Washington Emissions Data System

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 03/16/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 28

Source: Department of Ecology
Telephone: 360-407-6040
Last EDR Contact: 04/11/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Annually

INACTIVE DRYCLEANERS: Inactive Drycleaners

A listing of inactive drycleaner facility locations.

Date of Government Version: 01/12/2006
Date Data Arrived at EDR: 03/23/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 21

Source: Department of Ecology
Telephone: 360-407-6732
Last EDR Contact: 05/15/2006
Next Scheduled EDR Contact: 08/14/2006
Data Release Frequency: Annually

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 05/12/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Semi-Annually

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/14/2006
Date Data Arrived at EDR: 03/21/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 23

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/23/2006
Next Scheduled EDR Contact: 08/21/2006
Data Release Frequency: Varies

INDIAN UST: Underground Storage Tanks on Indian Land

Date of Government Version: 04/05/2006
Date Data Arrived at EDR: 04/05/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 8

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/23/2006
Next Scheduled EDR Contact: 08/21/2006
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

KING COUNTY:

Abandoned Landfill Study in King County

The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

Date of Government Version: 04/30/1985
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle-King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

KITSAP COUNTY:

Water Wells in Kitsap County

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

SEATTLE COUNTY:

Abandoned Landfill Study in the City of Seattle

The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle - King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SEATTLE/KING COUNTY:

Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project

This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986
Date Data Arrived at EDR: 08/18/1995
Date Made Active in Reports: 09/20/1995
Number of Days to Update: 33

Source: Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 08/14/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SNOHOMISH COUNTY:

Solid Waste Sites of Record at Snohomish Health District

Date of Government Version: 01/26/2006
Date Data Arrived at EDR: 05/01/2006
Date Made Active in Reports: 05/31/2006
Number of Days to Update: 30

Source: Snohomish Health District
Telephone: 206-339-5250
Last EDR Contact: 04/12/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Semi-Annually

TACOMA/PIERCE COUNTY:

Closed Landfill Survey

Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002
Date Data Arrived at EDR: 03/24/2003
Date Made Active in Reports: 05/14/2003
Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department
Telephone: 206-591-6500
Last EDR Contact: 03/19/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/17/2006
Date Made Active in Reports: 04/07/2006
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/01/2006
Date Made Active in Reports: 04/20/2006
Number of Days to Update: 50

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/31/2006
Next Scheduled EDR Contact: 08/28/2006
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 05/04/2006
Date Made Active in Reports: 06/06/2006
Number of Days to Update: 33

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/12/2006
Next Scheduled EDR Contact: 09/11/2006
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 05/02/2006
Number of Days to Update: 46

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/17/2006
Next Scheduled EDR Contact: 07/10/2006
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Center Listing
Source: Department of Social & Health Services
Telephone: 253-383-1735

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

HOMEPORT PROPERTIES, INC
210 MCKENZIE AVE
BELLINGHAM, WA 98225

TARGET PROPERTY COORDINATES

Latitude (North):	48.71880 - 48° 43' 7.7''
Longitude (West):	122.5122 - 122° 30' 43.9''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	535880.4
UTM Y (Meters):	5396092.5
Elevation:	26 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	48122-F5 ELIZA ISLAND, WA
Most Recent Revision:	1995
East Map:	48122-F4 BELLINGHAM SOUTH, WA
Most Recent Revision:	1995

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

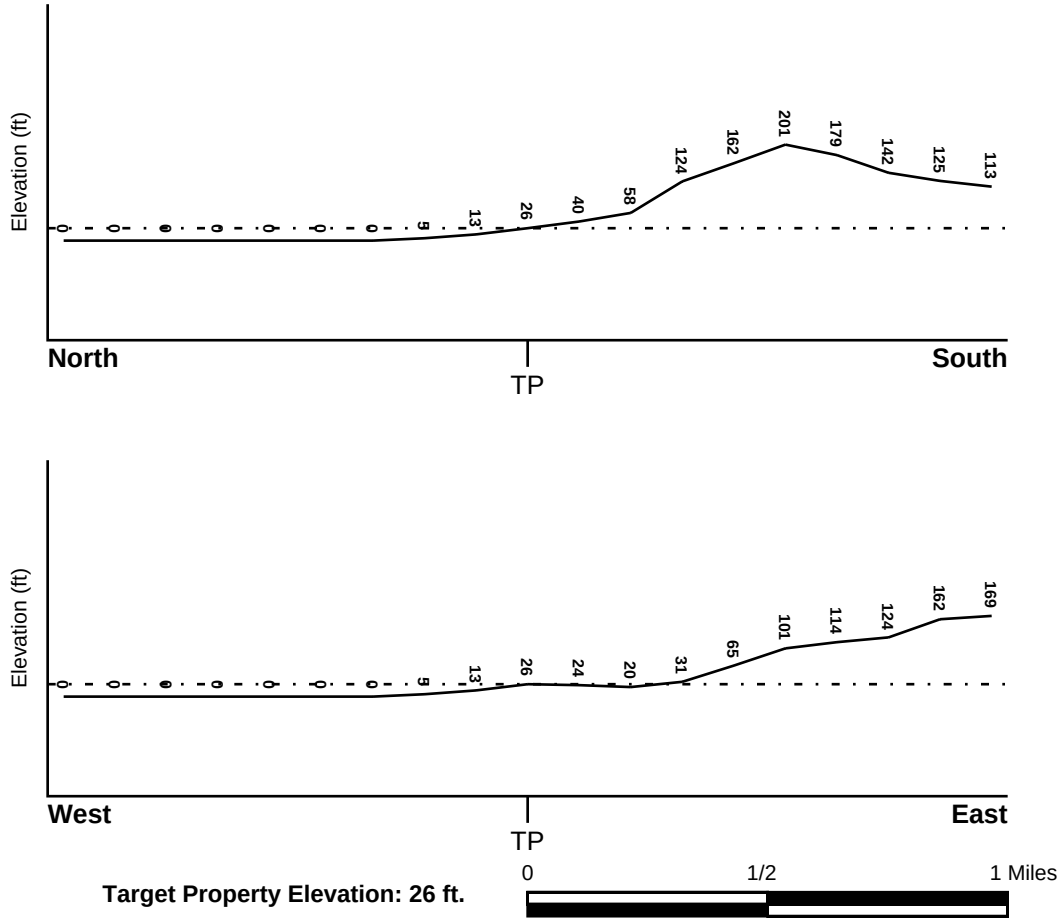
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 26 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
WHATCOM, WA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 5301990007B

Additional Panels in search area: 5301990005B
5301990009B

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ELIZA ISLAND	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile NNE
Site Name:	BOULEVARD PARK
Site EPA ID Number:	WAD980835565
Groundwater Flow Direction:	W
Inferred Depth to Water:	less than 20 feet
Hydraulic Connection:	The depth to the bedrock underlying the site is 10 feet to 21 feet.
Sole Source Aquifer:	A sole source aquifer is not persent at or near the site
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Tertiary
Series:	Paleocene
Code:	Txc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	SKIPOPA
Soil Surface Texture:	silt loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Somewhat poorly. Soils commonly have a layer with low hydraulic conductivity, wet state high in profile, etc. Depth to water table is 1 to 3 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	8 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.60
2	8 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 5.10
3	16 inches	60 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.06 Min: 0.00	Max: 7.30 Min: 5.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: gravelly - loam
gravelly - fine sandy loam
loam
very gravelly - sandy loam
unweathered bedrock

Surficial Soil Types: gravelly - loam
gravelly - fine sandy loam
loam
very gravelly - sandy loam
unweathered bedrock

Shallow Soil Types: gravelly - coarse sandy loam
very gravelly - loam
silt loam
very gravelly - sandy loam

Deeper Soil Types: cemented
weathered bedrock
unweathered bedrock
silt loam
very cobbly - loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

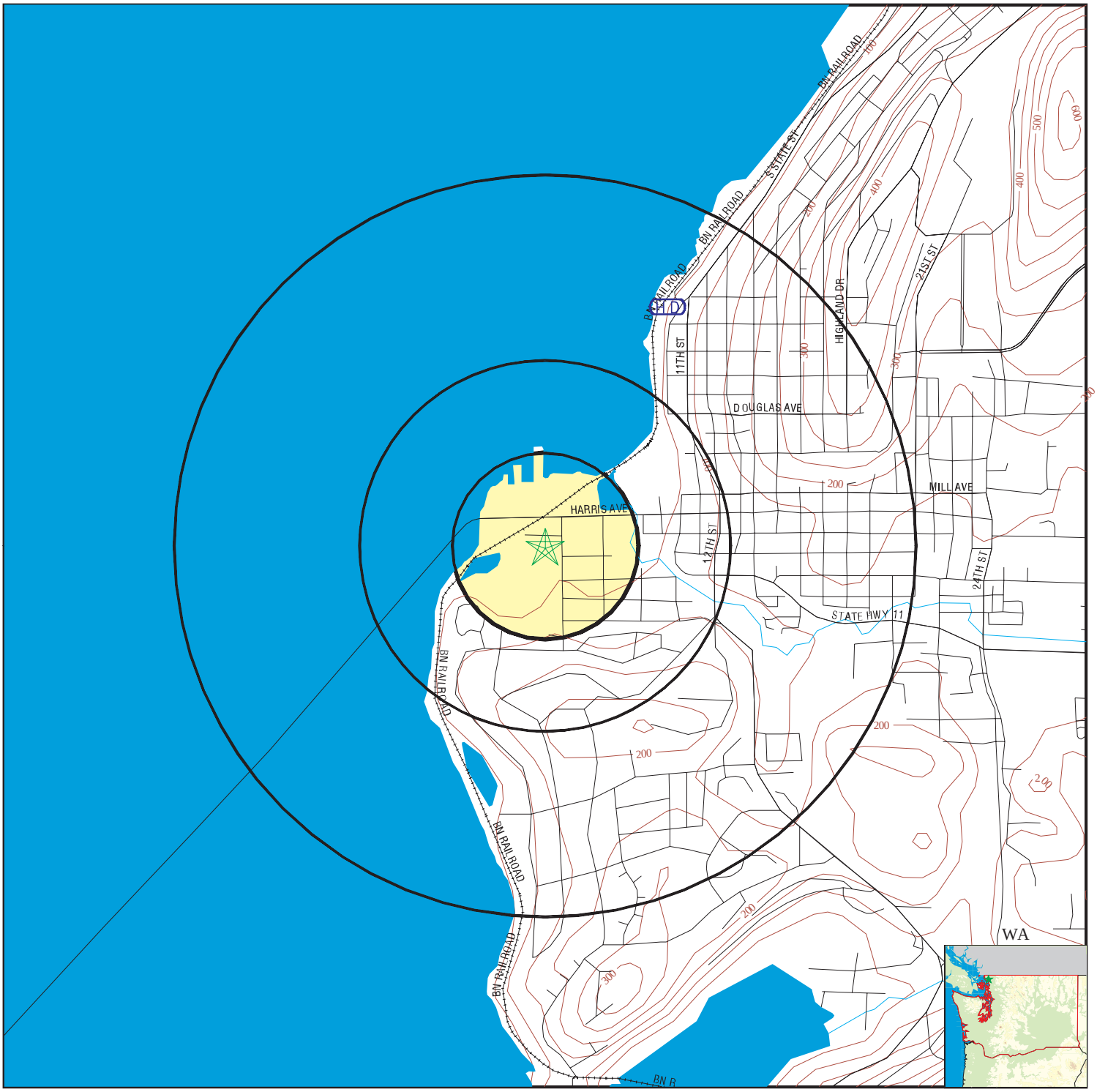
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 1696255.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data

SITE NAME:	Homeport Properties, Inc	CLIENT:	Whatcom Environmental Services
ADDRESS:	210 McKenzie Ave Bellingham WA 98225	CONTACT:	Thom Davis
LAT/LONG:	48.7188 / 122.5122	INQUIRY #:	1696255.2s
		DATE:	June 14, 2006

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for WHATCOM County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 98225

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.500 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Wells
Source: Department of Health
Telephone: 360-236-3148
Group A and B well locations.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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APPENDIX C

Historical Use Information

EDR® Environmental Data Resources Inc

"Linking Technology with Tradition"®

Sanborn® Map Report

Ship To: Thom Davis
Whatcom Environmental
P.O. Box 2715
Bellingham, WA 98225

Order Date: 6/14/2006 **Completion Date:** 6/15/2006
Inquiry #: 1696255.3S
P.O. #: NA
Site Name: Homeport Properties Inc
Address: 210 McKenzie Ave
City/State: Bellingham, WA 98225
Cross Streets:

Customer Project: COB Phase I ESA
1025591BRU 360-752-9571

Based on client-supplied information, fire insurance maps for the following years were identified

1890 - 1 Map
1891 - 1 Map
1897 - 1 Map
1904 - 1 Map
1913 - 1 Map
1950 - 1 Map

1932 and 1964 Sanborn Maps reviewed by WES at the Bellingham Public Library

Limited Permission to Photocopy Total Maps: 6

Whatcom Environmental Services (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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USER'S GUIDE

This User's Guide provides guidelines for accessing Sanborn Map® images and for transferring them to your Word Processor.

Reading Sanborn Maps

- Sanborn Maps document historical property use by displaying property information through words, abbreviations, and map symbols. The Sanborn Map Key provides information to help interpret the symbols and abbreviations used on Sanborn Maps. The Key is available from EDR's Web Site at: http://www.edrnet.com/reports/samples/key.pdf

Organization of Electronic Sanborn Image File

- Sanborn Map Report, listing years of coverage
- User's Guide
- Oldest Sanborn Map Image
- Most recent Sanborn Map Image

Navigating the Electronic Sanborn Image File

1. Open file on screen.
2. Identify TP (Target Property) on the most recent map.
3. Find TP on older printed images.
4. Using Acrobat® Reader®, zoom to 250% in order to view more clearly. (200-250% is the approximate equivalent scale of hardcopy Sanborn Maps.)
   A. On the menu bar, click "View" and then "Zoom to..."
   B. Or, use the magnifying tool and drag a box around the TP

Printing a Sanborn Map From the Electonic File

- EDR recommends printing images at 300 dpi (300 dpi prints faster than 600 dpi)
- To print only the TP area, cut and paste from Acrobat to your word processor application.

<u>Acrobat Versions 6 and 7</u>

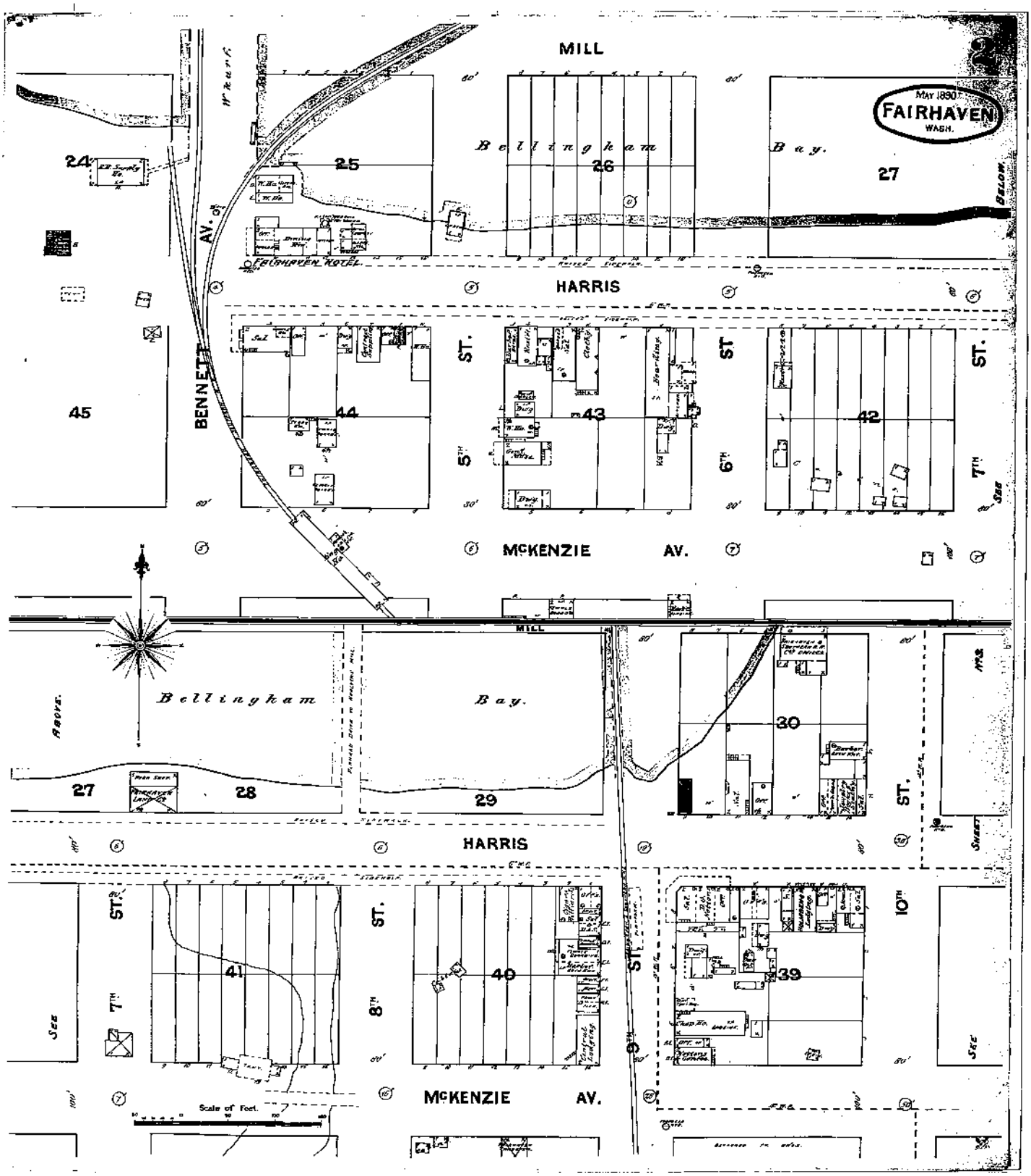
1. Go to the menu bar
2. Click the "Select Tool"
3. Draw a box around the area selected
4. "Right click" on your mouse
5. Select "Copy Image to Clipboard"
6. Go to Word Processor such as Microsoft Word, paste and print.

<u>Acrobat Version 5</u>

1. Go to the menu bar
2. Click the "Graphics Select Tool"
3. Draw a box around the area selected
4. Go to "Menu"
5. Highlight "Edit"
6. Highlight "Copy"
7. Go to Word Processor such as Microsoft Word, paste and print.

Important Information about Email Delivery of Electronic Sanborn Map Images

- Images are grouped intro one file, up to 2MB.
- In cases where in excess of 6-7 map years are available, the file size typically exceeds 2MB. In these cases, you will receive multiple files, labeled as "1 of 3", "2 of 3", etc. including all available map years.
- Due to file size limitations, certain ISPs, including AOL, may occasionally delay or decline to deliver files. Please contact your ISP to identify their specific file size limitations.



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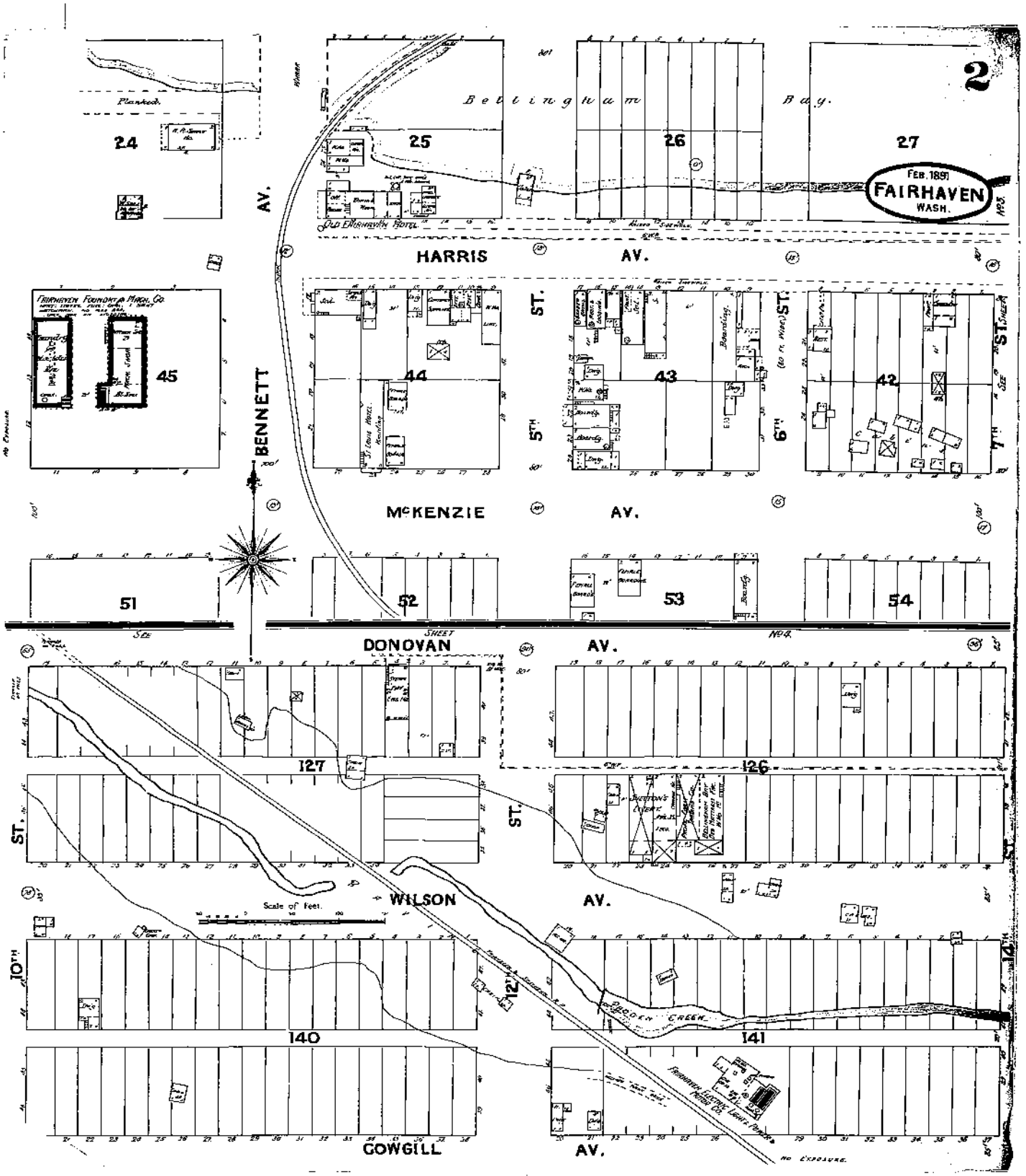

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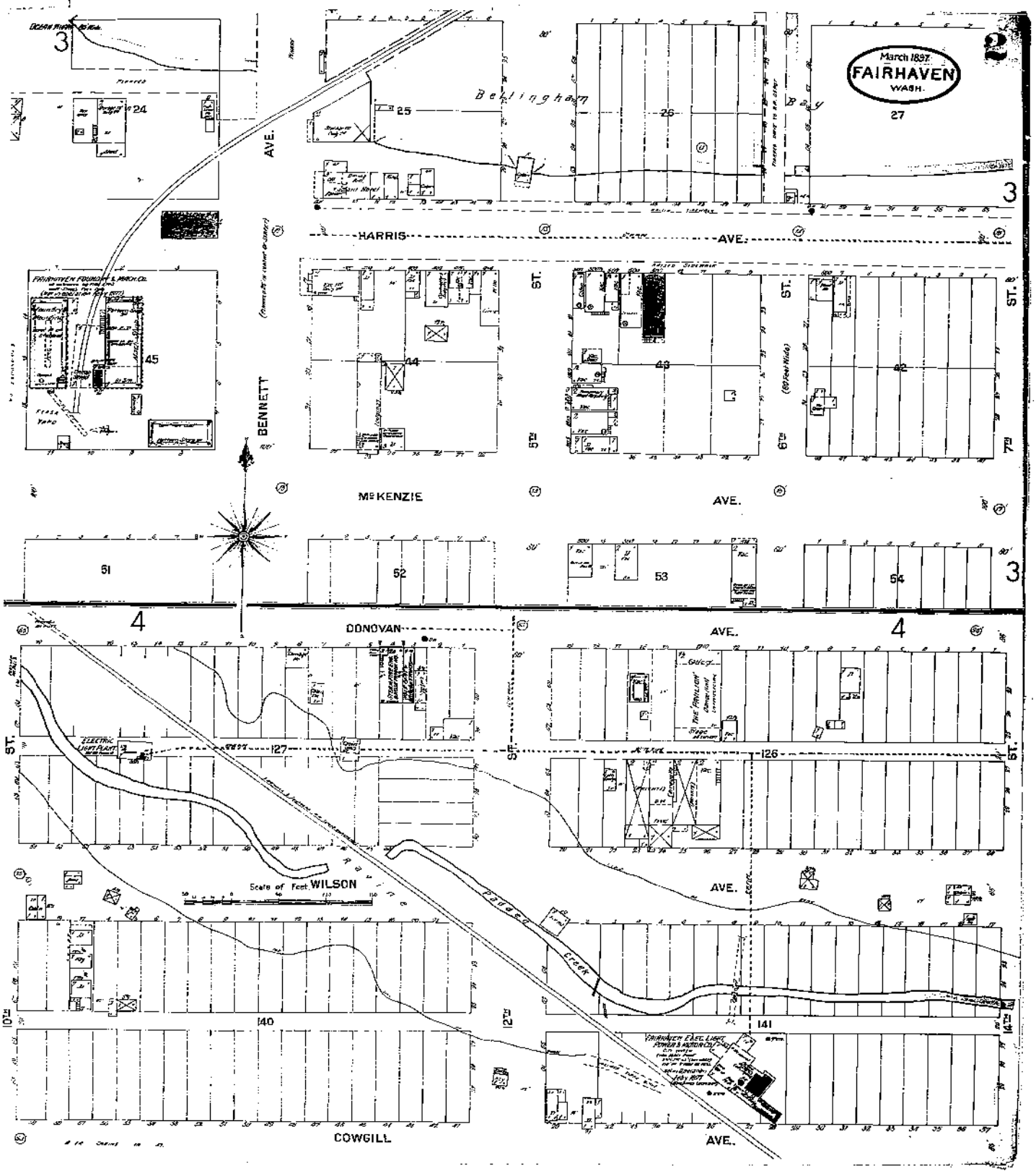

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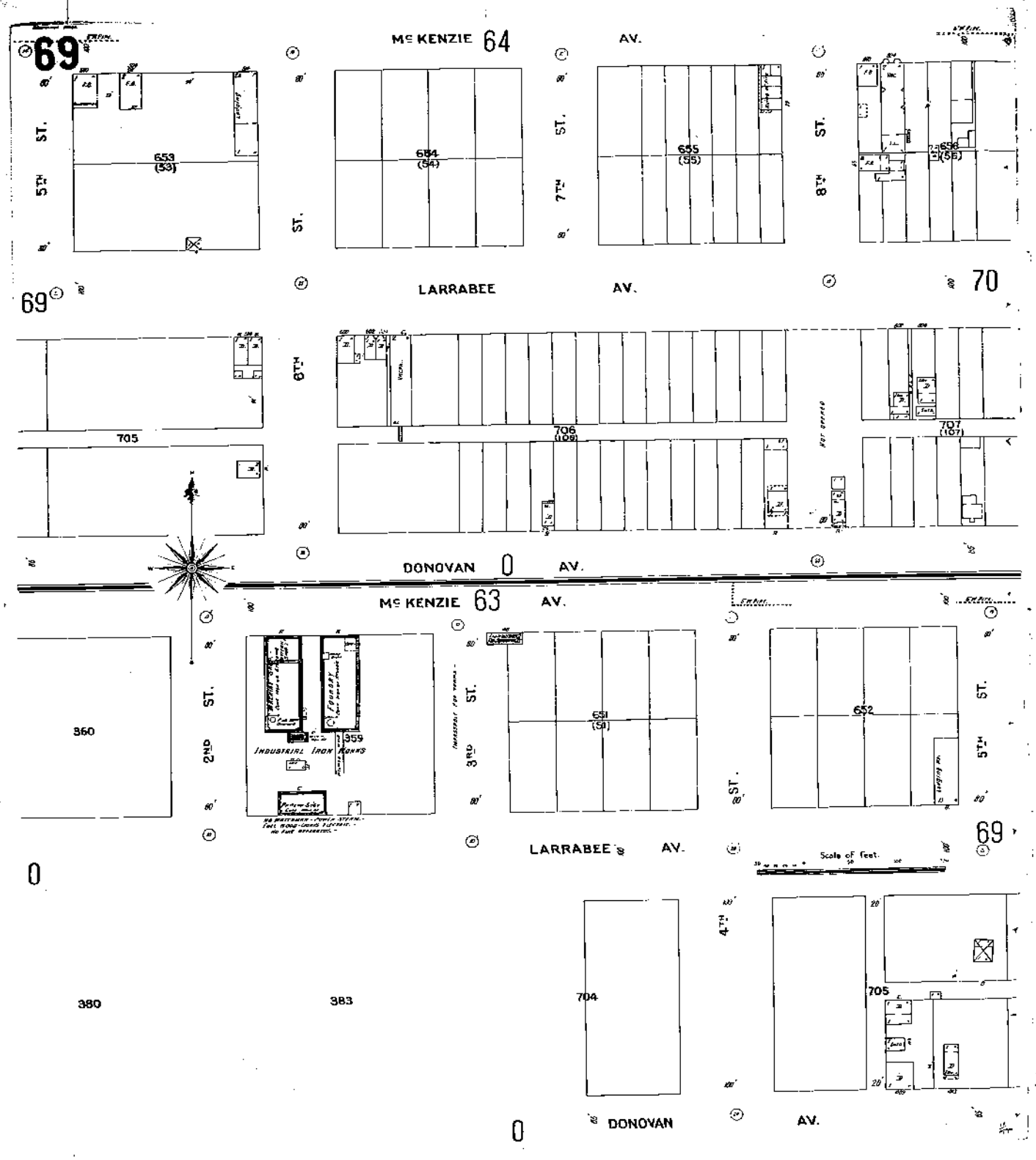

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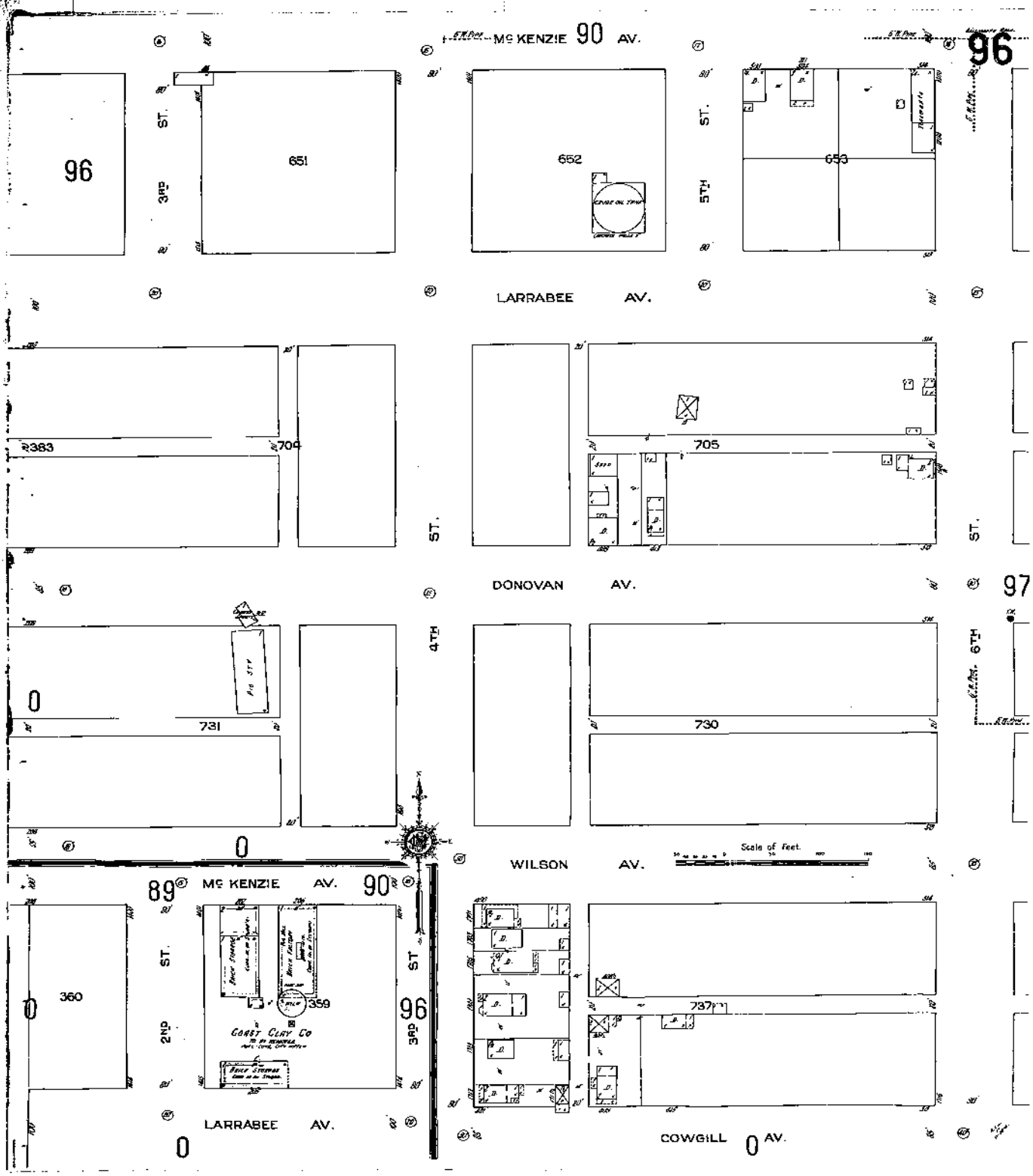

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McKENZIE 90 AV.

LARRABEE AV.

DONOVAN AV.

3RD ST.

4TH ST.

5TH ST.

96

651

652

653

704

705

383

CRUDE OIL TANK

1932

75137-2500-B+L-7-21-51

65155-10,000-S-10-13-49

#9628-6000-R-10-2-46 ✓

Mc KENZIE AV.

89

90

96

15

16

50

100'

208

1400

2ND

80'

ST.

6"W.P.

McKENZIE

T.H.

202 Mc KENZIE

206

30'

CHAIN FORGING

FUEL OIL POW. & LTS. ELECTR.

STGE.

METAL CLAD

220'

1401

2ND ST.

(BL-359)

359

360

3RD ST

1414

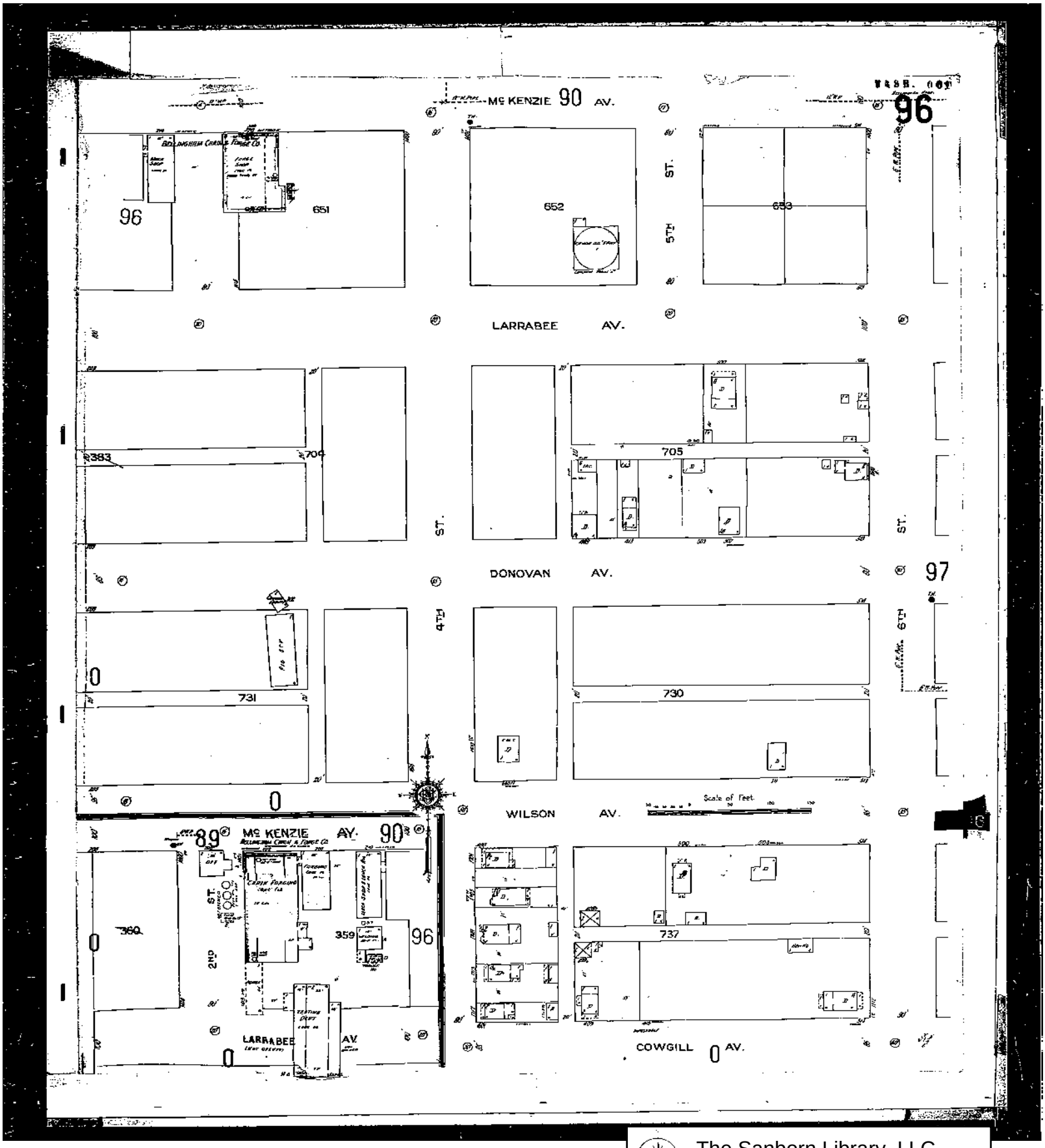
1415

LARRABEE AV.

20

0

1932



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Mc KENZIE 90 AV.

96

PLASTIC BOAT MFG.

BOAT STOR.

651

652

CRUDE OIL TANK

5TH ST.

LARRABEE AV.

102

383

704

705

ST.

DONOVAN AV.

1964

100'

12" W.P.

89 (15)

T.H.

McKENZIE

208

1400 2ND ST.

200

10' OFF.

2ND

1401

ST.

NOT OPENED

FUEL OI TKS 2' ABV. GRD.

McKENZIE AV. 90 (16)

BELLINGHAM ~~CHAIN~~ & FORGE CO

WATCHMAN NO CLOCK

McKENZIE 202

206 McKENZIE AV. 210 McKENZIE

16' 1=2 26' 16' 16'

1 1/2" HYD. 50' 2" HOSE

GEN'L. STGE.

1R. CL CONC. FLS.

CONC. FLS.

1R. CHS.

VAC. 32'

CONC. FL.

1R. CH.

14'

WOOD WK'G.

CONC. FL.

O G.T.

8'

S.P.

1 1/2" HYD 100' HOSE

359

14' VAC. A

CONC. FL.

D

TRANSF. HO

96

28'

2D ST.

1415

12' 1=2 22'

LARRABEE

VAC

14'

CONC FL

360

1414

80'

2ND

20

LARRABEE

(NOT OPENED)

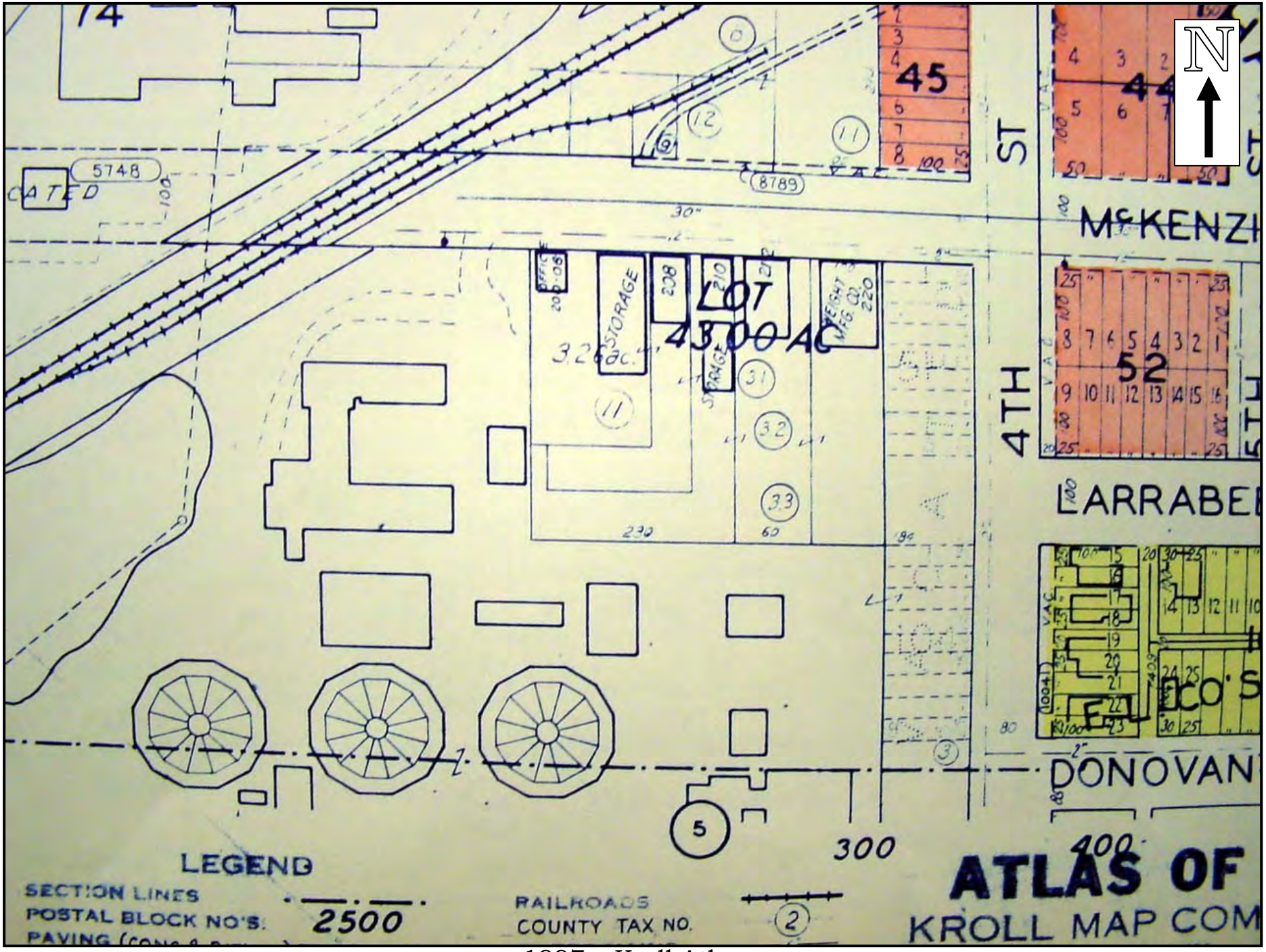
AV.

NOT OPENED

100'

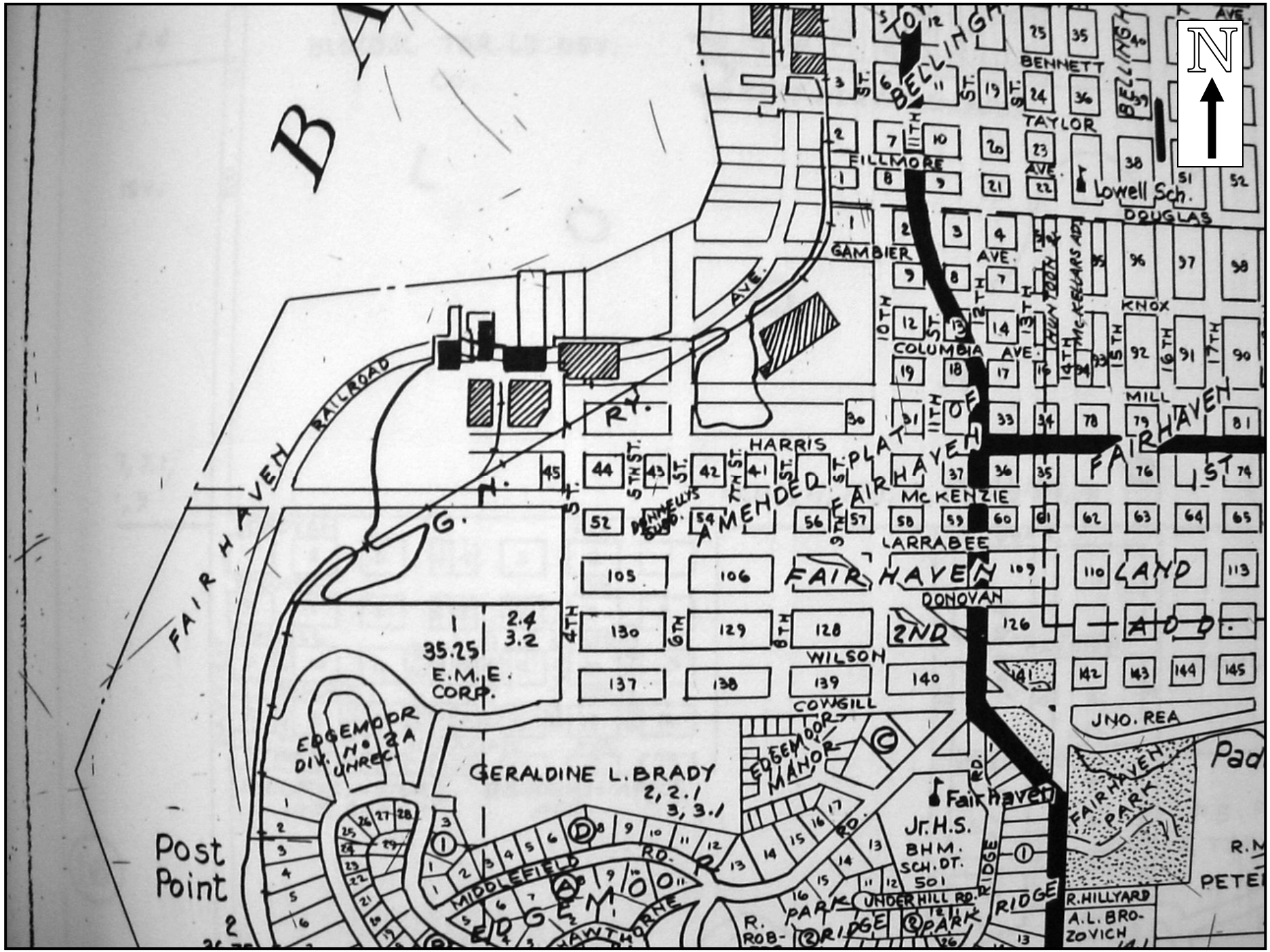
20

1964

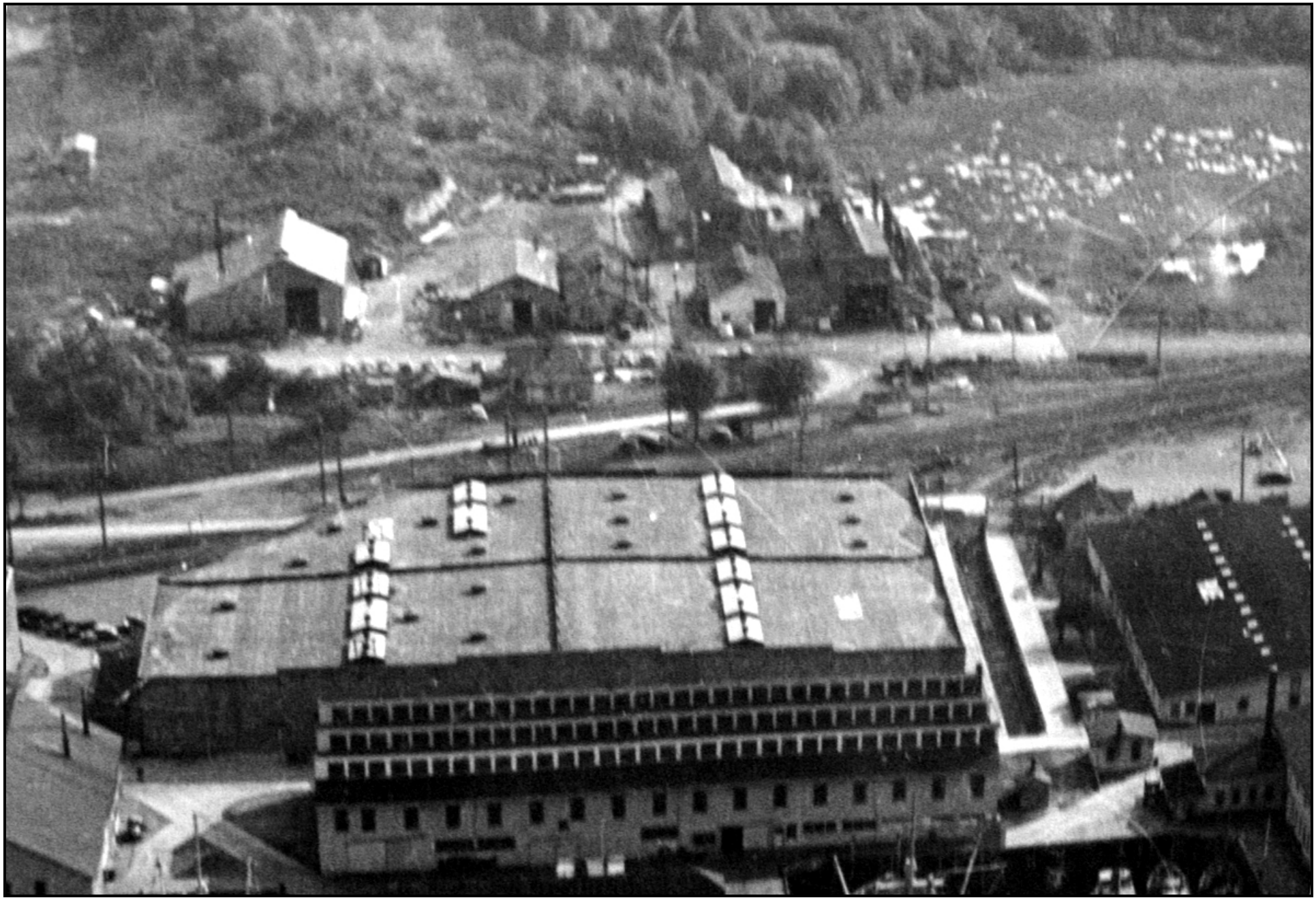


1997 – Kroll Atlas

1942 – Metsker Atlas



1960 – Metsker Atlas



1940's – Looking South

1950

1962

1963 – Looking North

1975

1986

1995

2002

2004

EDR Historical Topographic Map Report

Homeport Properties, Inc
210 McKenzie Ave
Bellingham, WA 98225

Inquiry Number: 1696255.4

June 16, 2006

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

BRU

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR Historical Topographic Map Report includes a search of available public and private color historical topographic map collections. For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topographic maps covering the United States.

References

To meet the prior use requirements of ASTM E 1527-05, Section 8.3.2, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-05, Section 8.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. ASTM E 1527-05 requires *"All obvious uses of the property shall be identified from the present, back to the property's first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historcal sources as are necessary and both reasonably ascertainable and likely to be useful."* (ASTM E 1527-05, Section 8.3.2) *Reasonably ascertainable means information that is publicly available, obtainable from a source within reasonable time and cost constraints,and practically reviewable.*

EPA's Standards and Practices for All Appropriate Inquiries (AAI), Section § 312.24, identifies the historical sourcesof information necessary to achieve the objectives and performance factors of § 312.20. According to AAI,*"historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps,building department records, chain of title documents, and land use records."*

References

In order to address data gaps, additional sources of information may be consulted. According the AAI, Section § 312.20 (g), *"to the extent there are data gaps (as defined in § 312.10) in the information developed...that affect the ability of persons (including the environmental professional) conducting the all appropriate inquiries to identify conditions indicative of releases or threatened releases...such persons should identify such data gaps, identify the sources of information consulted to address such data gaps, and comment upon the significance of such data gaps."* According to ASTM E 1527-05, Section 8.3.2.3, "historical research is complete when either: (1) the objectives in 8.3.1 through 8.3.2.2 are achieved; or (2) data failure is encountered. Data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met....If data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, give the reasons for their exclusion."

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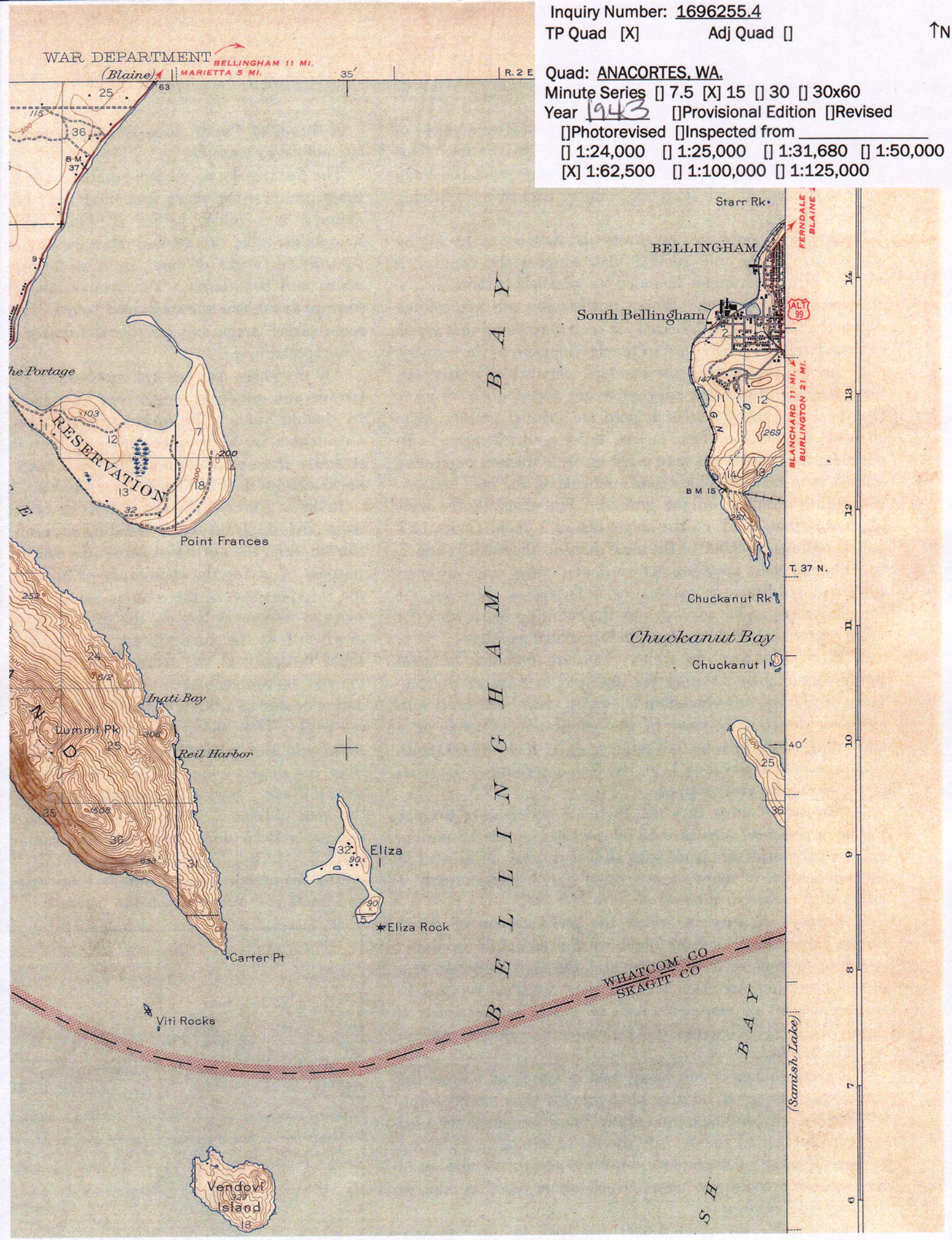

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[]Photorevised []Inspected from _____
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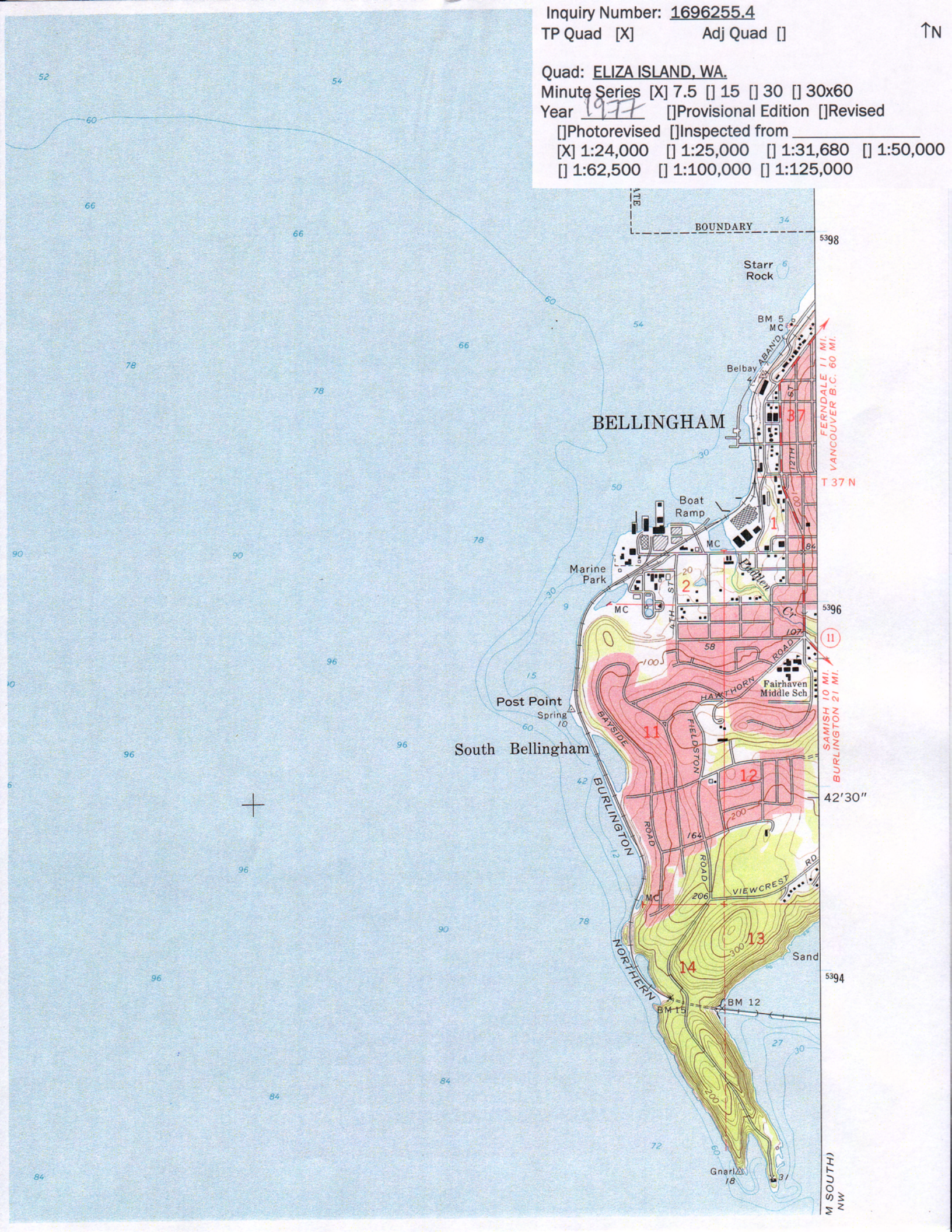

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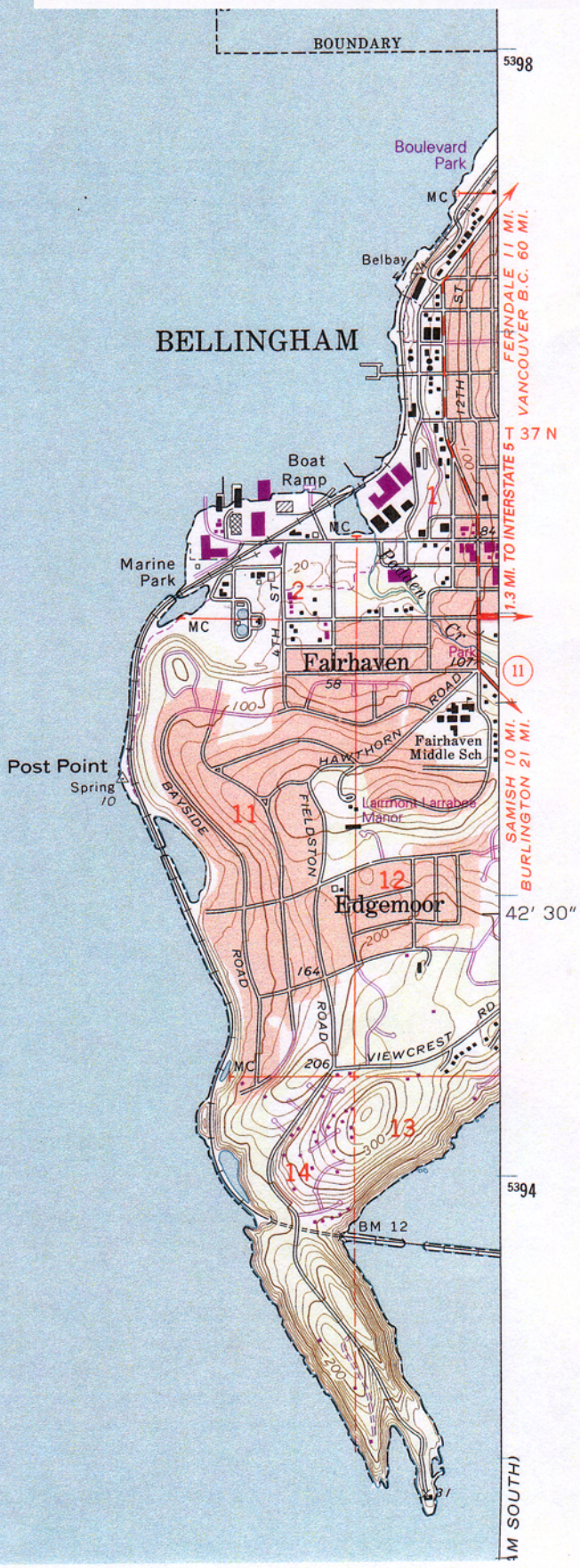

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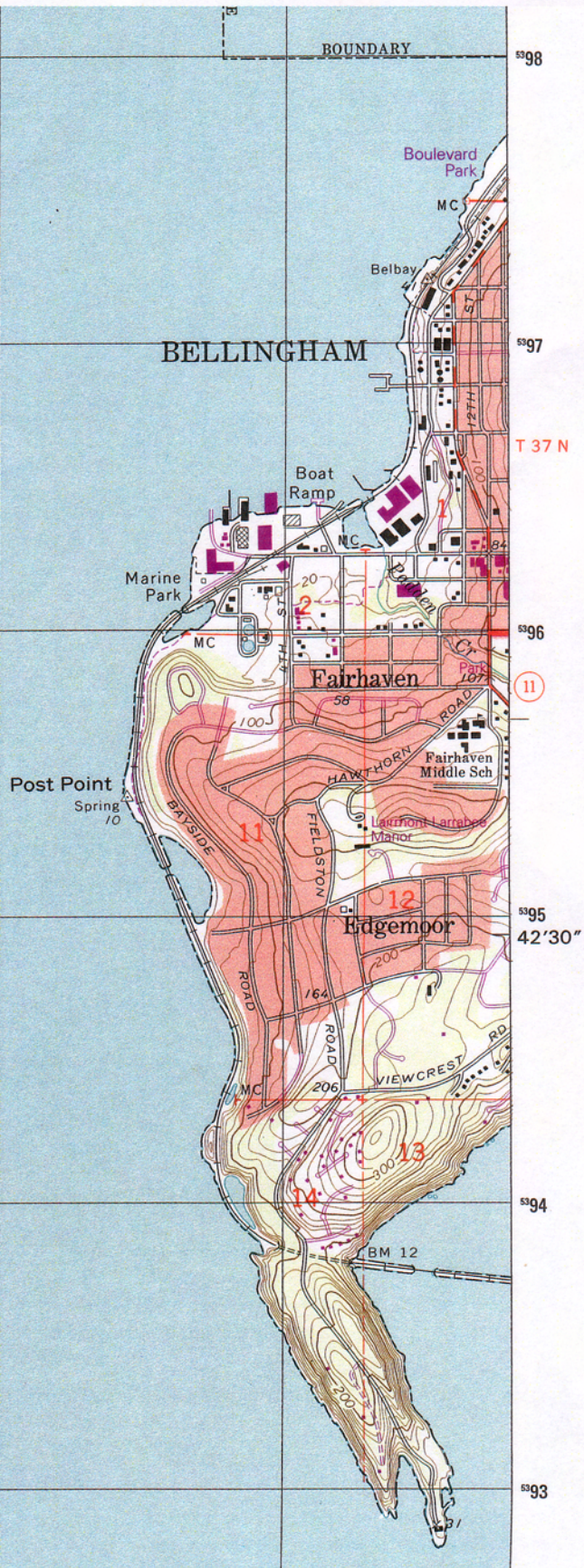


APPENDIX D

Interview Documentation and Owner Provided Information

Phase I ESA Interview Questionnaire

PROJECT: Homeport Properties Inc., 210 McKenzie Avenue

Interview Information

Date, Time, Location: *June 16, 2006*

Interviewer: *via fax*

Person being interviewed: *C. Rodger Sahlin*

Connection with property: *4th & McKenzie – 220/206 McKenzie*

Length of time associated with property: *since 1977 – 29 years*

Do any helpful documents exist?

1. ESA reports: *No*
2. Environmental Audit reports: *No*
3. Environmental Permits (solid waste, hazardous waste, wastewater, NPDES, etc.): *1994 – Disposal of Tanks*
4. Registration for above or underground storage tanks: *No*
5. Safety plans, SPCC plans, community right-to-know plans, etc.: *No*
6. Correspondence from govt. agencies concerning past or current violations: *No*
7. Hazardous waste generator notices: *No*
8. Geologic or hydrogeologic reports: *No*
9. Geotechnical reports: *No*
10. MSDS: *No*

Current Subject Property Use

What is the current use of the property? *Rental buildings and Boat Storage*

What was the past use of the property? *Rental since 1977*

Please describe all structures located on the property (size, age, etc): *See attached building diagrams*

Are building drawings available? *No*

What are the means of heating and cooling the structures? (including fuel sources on the subject property): *Natural Gas – No cooling*

What is the source of the potable water supply? *City of Bellingham*

This interview questionnaire was developed by WES and may not be duplicated without WES permission

Are the structures plumbed to a municipal sewer system? *Yes*

Are floor drains or sumps located in the buildings? *No*

Is there a septic system located on the property? *No*

Adjacent Property Use

What are the current uses of adjoining properties?

North: *Public Roadway (industrial)*

South: *Sewer Plant*

East: *Public roadway & City open space/Trail*

West: *Road Entrance and Park*

What are the past uses of adjoining properties?

North:
South:
East:
West:
} *Same*

Hazardous Materials

Would any current uses of the property involve the use, treatment, storage, disposal, or generation of hazardous substances? *Boat bottom painting*

Are there any hazardous substances currently onsite? *Don't know*

Type/Quantity:

How stored (containers and conditions)?

Have there been any hazardous substances onsite in the past? *Yes*

Are any above ground storage tanks located onsite? *No*
Content, capacity, age:

Are any below ground storage tanks located onsite? *No*
Content, capacity, age:

Are there currently any drums stored on the subject property? *No*
Type/quantity:

This interview questionnaire was developed by WES and may not be duplicated without WES permission

Have there been any drums stored on the property in the past? *Don't know – Prior to 1977*
Type/quantity:

Are there any containers holding PCB's located on the subject property? *No*

Have there been any containers storing PCB's located on the property in the past? *Don't know – Prior to 1977*

Property Conditions

Is there any stressed vegetation currently on the subject property? *No*

Have you ever observed stressed vegetation on the subject property in the past? *No*

Are drinking water or groundwater monitoring wells located on the subject property? *No*

Are drywells or sumps located on the subject property? *No*

Have you observed water in standing surface water or sumps? *No*

Are there pits, ponds, or lagoons located on the subject property? *No*

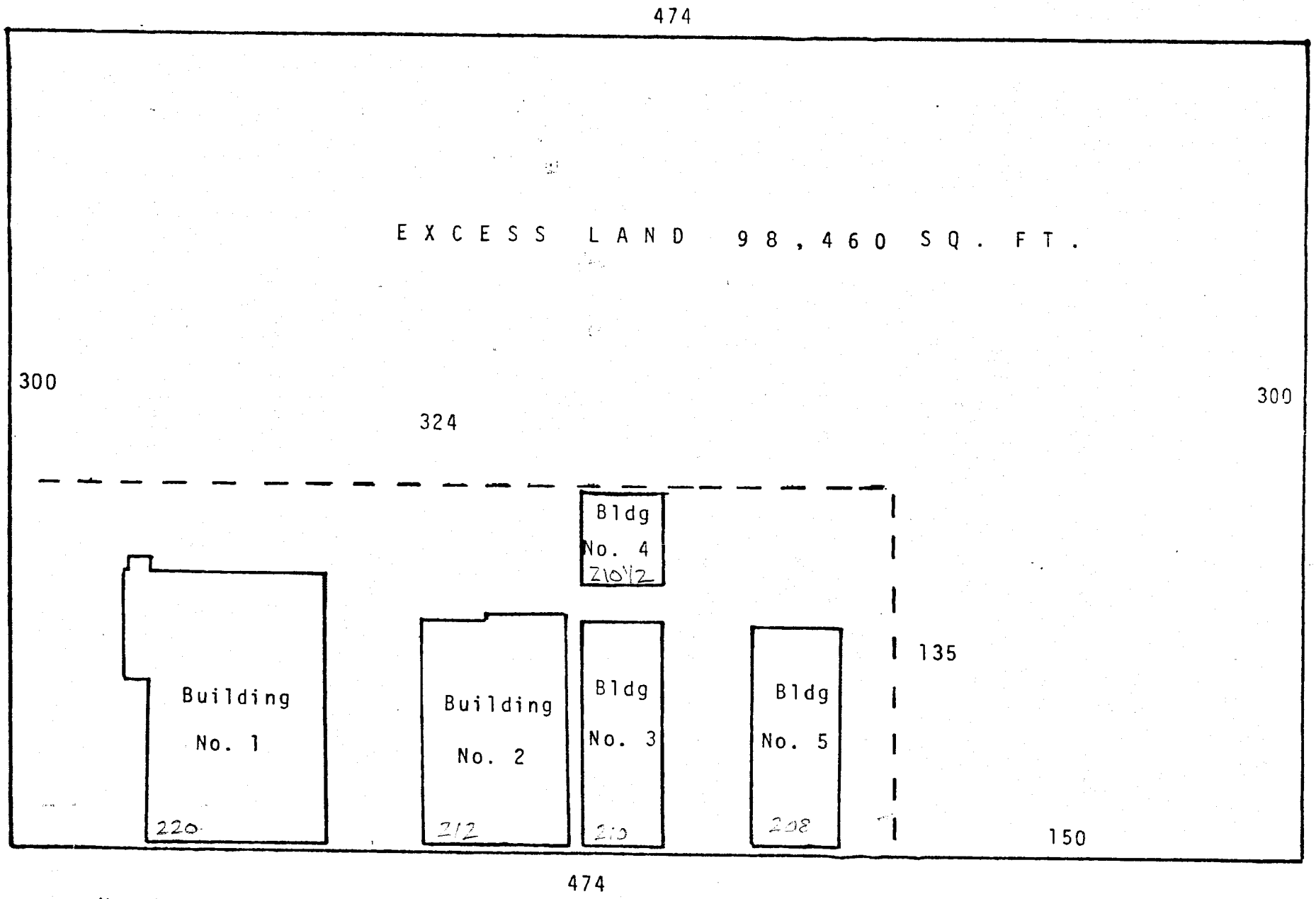
Are there vent pipes or other types of pipes located onsite? *No*

Have you ever noticed any odors coming from the site? *No*

Are there stains or corrosion visible on soil or pavement? *No*

Is there any fill material located onsite? *No*

This interview questionnaire was developed by WES and may not be duplicated without WES permission



SITE & DEVELOPMENT PLAN

SCALE 1" = 50'

The mechanical package in Building No. 1 includes a new 400 amp 3 phase electrical system with numberous 110V and 220V outlets throughout. Lighting is by means of suspended flourescent fixtures. The rewiring was accomplished in 1977.

The building is heated by means of a natural gas fired overhead radiant system. The Cor-Roy-Vac unit includes eight 60,000 BTU in line burners rated to maintain an inside temperature of 64° when the ambiant air is 32°. The system is designed for areas in which volatile materials are to be used with the burners completely inclosed drawing combustion air from the outside of the building. This system was also installed in 1977.

Fire protection for the building is provided by means of a Viking Automatic Sprinkler system. This 6" wet pipe system was engineered for hazardous occupancy areas with an activitation temperature of 160° and a head spray area of 90 square feet. This system was also installed in 1977.

Compressed air is supplied by means of quick connect outlets throughout the building. The system includes a Worthington Model 25RS110B base mounted, air cooled, sliding vane type compressor rated at 105CFM at 100PSIG. This system was installed in 1977. Placed at intervals along the west wall of the structure are four 48" 1.5HP exhaust fans. Each of these units is capable of moving 11,200 CFM providing excellent circulation and air exchange.

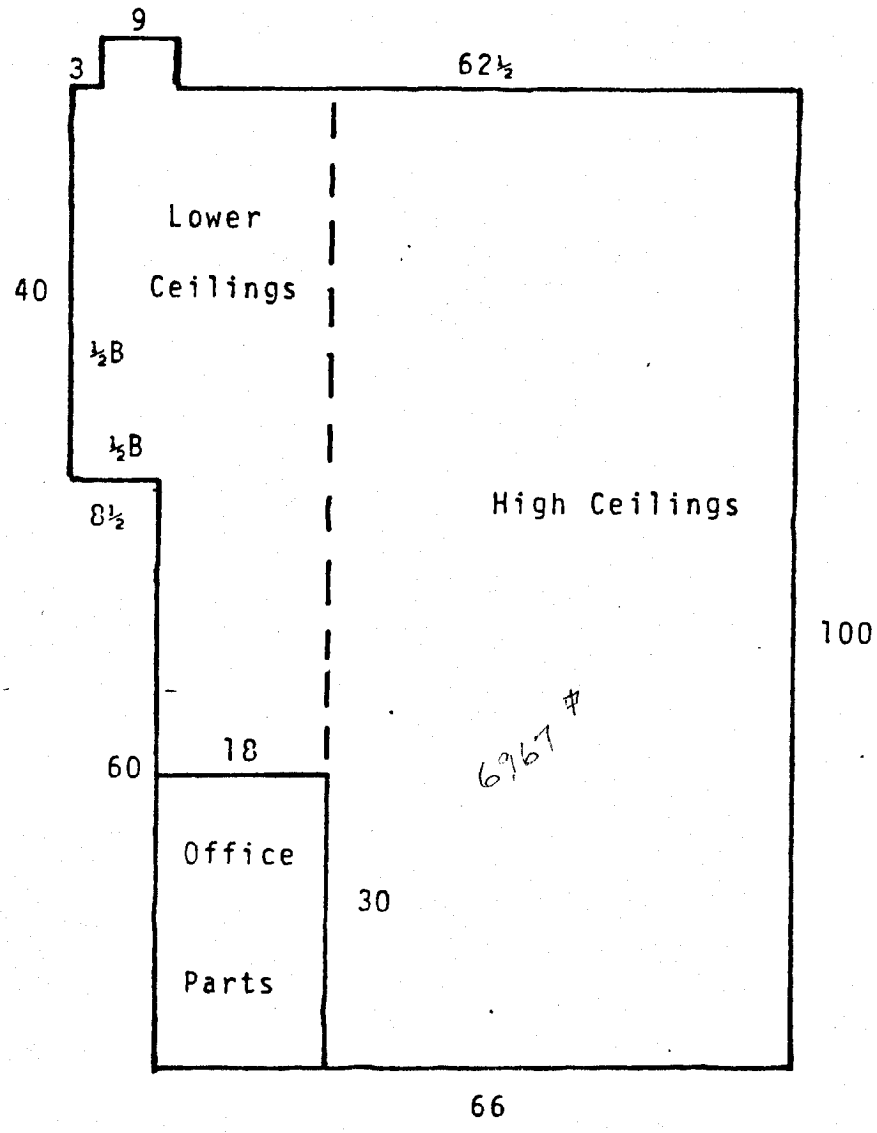
Installed along the clear span trusses in the building are three 2 ton hoist systems. The hoist units ride along 10" I beam tracks which are secured to the trusses. These tracks can be moved, however, to accommodate a variety of needs throughout the building.

Buildings No. 2 and No. 3 front on McKenzie Avenue approximately 40 feet west of Building No. 1. These two structures are connected by means of an 8 foot passageway. Both buildings are of frame construction set on a concrete foundation with concrete slab flooring, wood shingle siding and rolled composition roofing. The structures are heated by means of suspended Carrier gas fired space heaters. The sprinkler system reflects 160° activation point and 120 square foot head coverage. The buildings are lighted by means of flourescent overhead fixtures with a new 400 amp 3 phase electrical service having been installed in 1977.

The buildings reflect a total of 6,849 square feet and consist primarily of open warehouse/manufacturing type space. The westerly 32 feet by 72 feet of Building No. 2 is clear span with overhead clearance of approximately 15 feet. A 15 ton overhead track crane is located in this area. Building No. 3 includes two lavatories with eye bath station. The buildings were built in 1943 and have been relatively well maintained over the years. While some instances of some obsolescence and physical deteriorated are noted, overall their utility for industrial purposes would appear to be good with a significant remaining economic life.

Building No. 4 is located approximately 12 feet southerly of Building No. 3 and is of frame construction set on a concrete slab foundation with wood siding and rolled composition roofing. This structure which is lighted but unsprinkled and unheated is exclusively storage space and commands 1,037 square feet of main floor area and 632 square feet of perimeter mezannine storage. Overhead clearance is approximately 14 feet with access to the structure available by means of a 16 foot wide opening with double sliding doors.

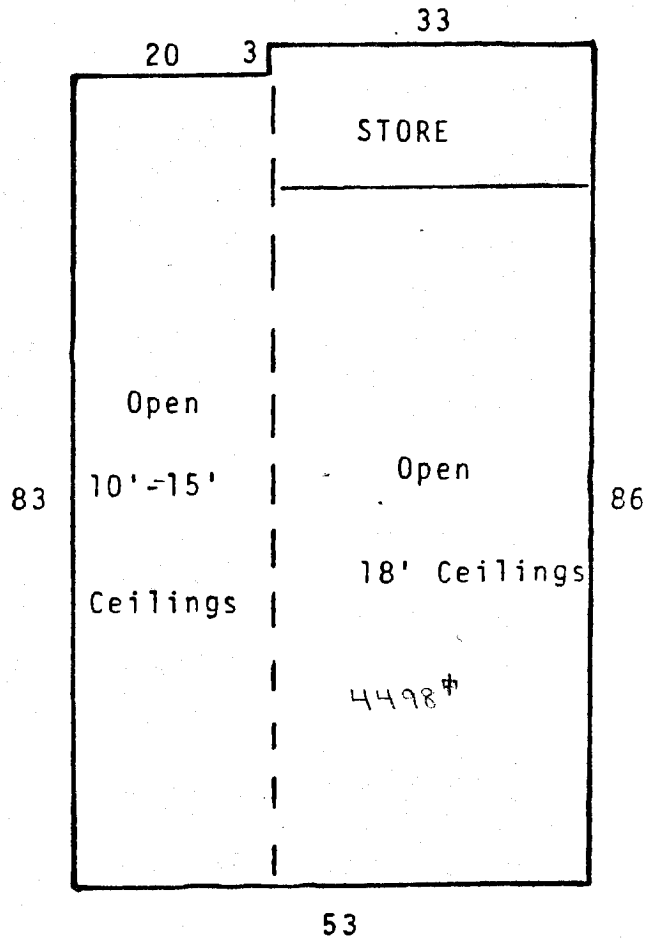
Building No. 5 is located along McKenzie Street approximately 30 feet south of Building No. 3. This frame structure reflects a concrete foundation with concrete slab flooring, plywood siding and rolled composition roofing. With the exception of a 16 foot by 16 foot partitioned office area in the northeasterly corner, the building reflects open warehouse space. Recently rewired with a new 200 amp service, the building is unheated and unsprinkled.



BUILDING NO. 1

SCALE 1"=20'

220 McKENZIE

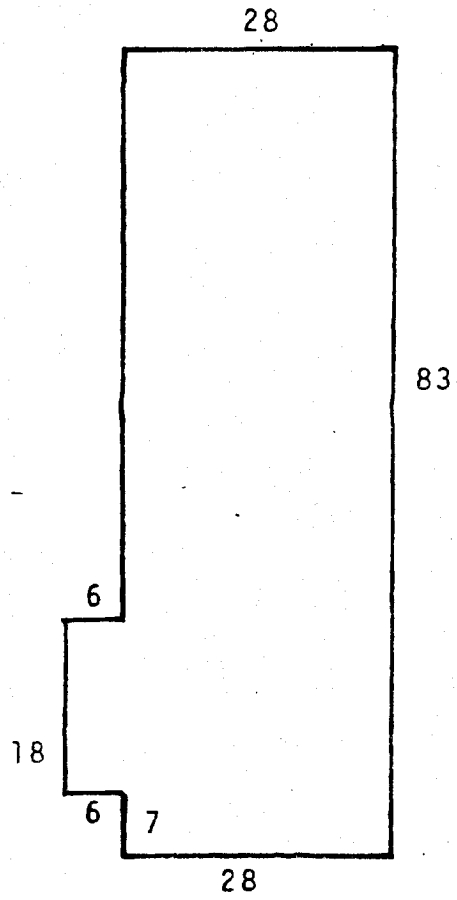


BUILDING NO. 2

SCALE 1" = 20'

212 [illegible]

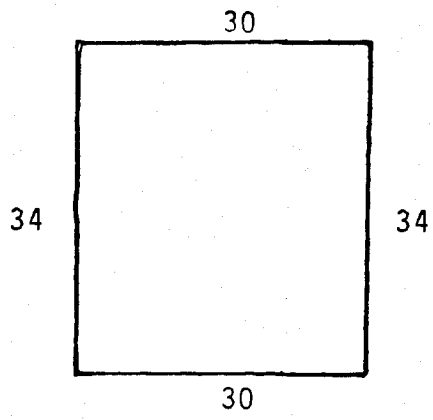
2432 #



BUILDING NO. 3

SCALE 1" = 20'

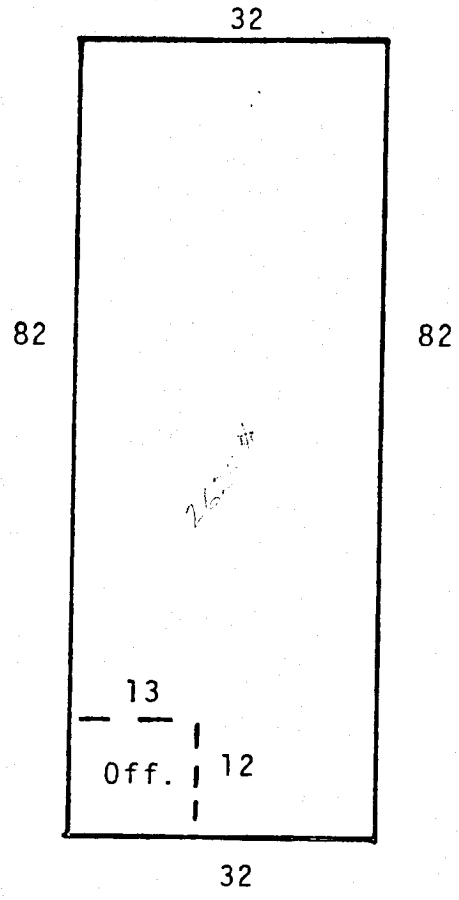
210 MCKENZIE



BUILDING NO. 4

SCALE 1"=20'

2101 McKENZIE



BUILDING NO. 5

SCALE 1"=20'

ENVIRONMENTAL SITE ASSESSMENT:
PHASE II

206 AND 208 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON

For:

Bellingham Stevedoring Company
Harbor Center
1801 Roeder Avenue, Suite 156
Bellingham, WA 98225

By:

W.D. PURNELL & ASSOCIATES, INC.
Consulting Engineers • Geologists
2138 Humboldt Street
Bellingham, WA 98227
(206) 676-9589

January 5, 1994

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APPENDIX

Not Included

Analytical Results (CCI Laboratories, Inc.) ← w/ Report

W.D. PURNELL
AND ASSOCIATES, INC.

January 5, 1994

Bellingham Stevedoring Company
Harbor Center
1801 Roeder Avenue, Suite 156
Bellingham, WA 98225

Attn: Irven Chunyk

Re: **Report**
Environmental Site Assessment: Limited Phase II
Bellingham Stevedoring Company
206 & 208 McKenzie Avenue
Bellingham, WA 98225

Dear Mr. Chunyk:

We herein present the results of a limited Phase II Environmental Site Assessment at the above referenced property. Specifically, this report addresses the concentration of hydrocarbon products in soil of an open pit on the project site from which two underground storage tanks (USTs) have been removed. It is our understanding that the subject property was the site of a chain manufacturing company, and that the (USTs) contained cutting oil used in the manufacturing process.

PURPOSE AND SCOPE

The purpose of this limited Phase II Environmental Site Assessment is to investigate the condition of soil within the UST pit in regard to hydrocarbon concentration.

The scope of our services included:

1. Qualitatively screen soil samples from within the UST pit for hydrocarbon concentration using a MicroTIP model HL-2000 photo-ionization detector (PID), or other appropriate field technique. Based on field screening, soil samples were collected for quantitative laboratory analysis.

2. Arrange for analytical services by CCI Laboratories in Everett, Washington.

3. Preparation of this report.

P.O. Box 5346, 2138 Humboldt, Bellingham, WA 98227 Phone: (206) 676-9589 Fax: (206) 676-4625

SITE ACTIVITIES

The site was visited by a representative of W.D. Purnell & Associates on November 5, 1993 for the purpose of conducting a visual site assessment.

A representative of W.D. Purnell & Associates returned to the project site on November 29, 1993 to collect soil samples from the UST pit for analyses. Five test holes were dug by hand to a depth of approximately six inches. A soil sample was collected from each test hole. Three samples were collected from the side walls of the pit, and two samples were collected from the bottom of the pit.

SITE CONDITIONS

At the time of our initial site visit on November 5, 1993, the two USTs had been removed from the UST pit. The USTs had been cleaned and were stored on-site awaiting disposal. Both USTs were estimated to be approximately 10,000 gallons in size.

The UST pit is located adjacent to an abandoned building on the project site. The pit is approximately 50' long x 20' wide x 10' deep. The pit had been excavated in fill material that includes clay, sandy gravel, bricks and metal debris. Part of the bottom of the pit was covered with standing water. It is not known at this time if the water is simply rainwater, or is part of a perched shallow aquifer. A slight hydrocarbon sheen was observed on the water.

Visual evidence of hydrocarbon contamination was observed in all test holes.

LABORATORY RESULTS

Laboratory analyses were performed by CCI Laboratories, Inc. in Everett, Washington, using methodology approved by the Washington State Department of Ecology (WDOE).

The analytical protocol, as recommended by the WDOE, is as follows:

1) Screen samples using the WTPH-HCID analytical methodology. No further analysis is required if (1) the concentration of gasoline range hydrocarbons is less than 20 parts-per-million (ppm) in soil or 0.20 ppm in water, (2) diesel range hydrocarbons are less than 50 ppm in soil or 0.50 ppm in water, (3) and heavy oil range hydrocarbons are less than 100 ppm in soil or 1 ppm in water.

2) Should any sample exceed the limits described above, the WDOE recommends further analysis to determine precise concentrations, using the WTPH-G methodology for gasoline range hydrocarbons, the WTPH-D methodology for diesel range hydrocarbons, and the WTPH-418.1 methodology for heavy oil range hydrocarbons. The WDOE also recommends that soil or water contaminated with gasoline range hydrocarbons be analyzed for lead and BTEX (Benzene, Toluene, Ethyl Benzene and Xylene).

The results of WTPH-HCID analyses on soil from the pit is presented in Table 1. The cleanup standard is as presented in the Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340-740 WAC).

TABLE 1
Analytical Results (WTPH-HCID)
Sampling Date: 11/29/93

	Gasoline Range (ppm)	Diesel Range (ppm)	Heavy Oil Range (ppm)
Cleanup Standard	100	200	200
Sample # (Location)			
#3 (east sidewall)	< 200	> 500	> 1000

Sample #3 was selected for (HCID) analysis because of visual evidence of hydrocarbons in the sample. Quantification of hydrocarbon concentration was determined using the WTPH-418.1 analytical methodology. The results of these analyses are presented in Table 2. The cleanup standard is as presented in the MTCA.

TABLE 2
Analytical Results (WTPH-418.1)
Sampling Date : 11/29/93

Sample (Location)	Total Petroleum Hydrocarbons (ppm)
Clean-up Standard	**200**
#1 (south sidewall)	120
#2 (west sidewall)	590
#3 (east sidewall)	12,000
#4 (south floor)	8,100
#5 (north floor)	2,600

Analytical results tabulated in Table 1 and Table 2 indicate that heavy oil and diesel fuel (or heating oil) are present in soils in the UST pit on the subject property at concentrations above MTCA clean-up standards.

In the past, polychlorinated biphenols (PCBs) were sometimes used as a constituent of cutting oil. For this reason PCB analyses were conducted, using the EPA 8080 analytical methodology. To evaluate potential metal contamination of the soil, a lead analysis was also conducted, using the EPA-7420 methodology. Sample #3 was chosen for these analyses because this sample had the highest hydrocarbon concentration. The results of the PCB and lead analyses are shown in Table 3.

TABLE 3
Analytical Results (EPA-8080 and EPA-7420)
Sampling Date : 11/29/93

Sample # (Location)	PCB (ppm)	Lead (ppm)
Clean-up Standard	1	250
#3 (sidewall)	ND(<1)	120

Analytical results indicate that PCBs are not present in Sample #3 at a concentration above the 1 ppm detection limit. The clean-up standard for PCBs as defined in the MTCA is 1 ppm. Analytical results indicate that lead (Pb) is present at a concentration less than the MTCA cleanup level in Sample #3. The clean-up standard as defined in the MTCA is 250 ppm for lead.

CONCLUSIONS

We conclude that petroleum hydrocarbon products are present at high concentration in soil in the UST excavation area on the subject property. The concentration of hydrocarbon products is above MTCA cleanup standards. The WTPH-HCID analysis revealed that diesel fuel may also be present in soil of the pit. PCBs were not detected, and lead was detected at a concentration below MTCA clean-up levels. The evaluation of potential ground water contamination is beyond the scope of this study.

The WTPH-HCID analysis indicates that Sample #3 contains diesel oil or heating oil at a concentration above MTCA cleanup levels. The presence of diesel oil or heating oil does not affect your remediation or disposal options, but is of concern because the source is not known. We do not know if the USTs contained diesel oil or heating oil at one time, or if other leaking underground storage tanks may exist on the subject property.

The PCB analysis indicates that PCBs are not present at detectable levels in Sample #3. The lead analysis indicates that lead is present at a concentration above background levels, but below MTCA cleanup levels.

WDOE REPORTING REQUIREMENTS

Under WAC 173-360 "Underground Storage Tank Regulations", you are required to report a confirmed release of hydrocarbon products to the WDOE within 24 hours of confirmation. At your request, W.D. Purnell & Associates, Inc. have reported the release. Under WAC 173-340 "The Model Toxics Control Act Regulation", you are required to submit a "status report" to the WDOE within twenty days of release confirmation. The purpose of the status report is to identify the types, amounts, and locations of hazardous substances. The status report can be verbal. Under WAC 173-340 "The Model Toxics Control Act Regulation", you are required to submit a "site characterization report" within ninety days after release confirmation. The site characterization report is a detailed status report, and must be in written form.

Under WAC 173-340 "The Model Toxics Control Act Regulation", if you choose to cleanup the site on your own, an independent remedial action report must be submitted to the WDOE when cleanup is complete. If independent remedial action occurs within ninety days after release confirmation, the site will generally not be listed on a WDOE hazardous sites list.

RECOMMENDATIONS

We recommend that all hydrocarbon contaminated soil be excavated from the UST pit. There are several remediation or disposal options for soil contaminated with hydrocarbon products. For soil contaminated with heavy oil, the most cost effective method, in our opinion, is disposal of the soil at a licensed landfill or thermal reduction facility. Determining the extent of hydrocarbon contamination within the UST pit is beyond the scope of this study. Contaminated soil should be excavated until laboratory results show that hydrocarbon concentration within soil remaining in the UST pit is below the MTCA cleanup standards.

Based on the PCB analysis for Sample #3, the UST pit does not appear to contain PCBs at detectable concentrations. However, the laboratory noted that the high concentration of hydrocarbons in Sample #3 necessitated a complex cleanup of the sample prior to PCB analysis. We recommend that additional samples be analyzed for PCBs, to insure that the

soil does not contain PCBs above MTCA cleanup levels. Should you decide to dispose of the soil at a licensed landfill or thermal reduction facility, additional PCB analyses will probably be required prior to acceptance.

Based on the lead analysis for Sample #3, the UST pit does not appear to contain lead at a concentration above MTCA cleanup levels. However, because the sample does contain lead above background levels, we recommend that soil of the UST pit be analyzed for the EPA Priority Pollutant Metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thorium, and zinc). Should you decide to dispose of the soil at a licensed landfill or thermal reduction facility, EPA Priority Pollutant Metals analyses will probably be required prior to acceptance.

We recommend that a study be conducted to determine the source of diesel oil or heating oil detected in Sample #3. We recommend that additional samples be collected from the UST pit and analyzed specifically for diesel oil or heating oil using the WTPH-D methodology. If results confirm that diesel oil or heating oil is present in the UST pit, we recommend that a magnetic survey be conducted in the area of the UST pit to determine if additional USTs may be present. If additional USTs are found, the USTs should be removed and a site assessment should be conducted per WDOE regulations.

Evaluation of potential ground water contamination is beyond the scope of this study. Additional information in regard to potential ground water contamination will be made available when hydrocarbon contaminated soil is excavated from the UST pit. The installation of ground water monitoring wells may be recommended at that time.

At your request, W.D. Purnell & Associates is currently preparing a proposal to carry out our recommendations.

INDEMNIFICATION AND LIMITATIONS

At the request of Bellingham Stevedoring Company, **W.D. Purnell & Associates, Inc.** conducted a limited Phase II Environmental Site Assessment at Bellingham Stevedoring Company at 206 & 208 McKenzie Avenue in Bellingham, Washington (the subject property). The purpose of the investigation was to evaluate potential hydrocarbon contamination within a UST pit on the subject property. No other part of the subject property was investigated during the course of this study.

As is now common in the industry, our general liability insurance carriers specifically exclude coverage for claims or damages related to the release of pollutants. Therefore, as a condition of our services, it is understood that to the fullest extent permitted by law, Bellingham Stevedoring Company, agrees to defend, indemnify and hold harmless **W.D. Purnell & Associates, Inc.**, its owners, employees, subcontractors and agents, from any (past, present, or future) pollution-related claims or damages at the site, including potential claims from third parties that may name **W.D. Purnell & Associates, Inc.**, as a claimant.

The analytical conclusions and recommendations contained in this report are based on site conditions observed in the UST pit at the time of our investigation and make no assumptions that the UST pit is representative of the subsurface conditions throughout the site. Should different subsurface conditions from those encountered during our explorations be observed or appear to be present, **W.D. Purnell & Associates, Inc.** should be advised promptly so that we may review these conditions and reconsider our recommendations and conclusions where necessary.

January 5, 1994
Bellingham Stevedoring Company
Evironmental Site Assessment: Limited Phase II

We appreciate the opportunity to be of service to you. Should you have any questions concerning this Environmental Site Assessment: Limited Phase II, please contact our office.

Sincerely yours,

W. D. PURNELL & ASSOCIATES, INC.,

Willard D. Purnell, P.E.G.
Professional Engineering Geologist

Jon M. Einarsen, M.S.
Geologist

Kenneth R. Koenig
Geologist

KK:mw
M:93121.ESA

December 16, 1994

Bellingham Stevedoring Company
Harbor Center, Suite 156
1801 Roeder Avenue
Bellingham, WA 98225

Attn: Mr. Ted Mischaikow

Re: Final Report
On-Site Thermal Desorption of Contaminated Soil
206 & 208 McKenzie Avenue
Bellingham, Washington

Dear Mr. Mischaikow:

We are pleased to present the analytical results for on-site thermal desorption conducted by Soaring Eagle Soils, Inc. at the above referenced property. The soil that was treated had been excavated from the sidewalls and bottom of an underground storage tank (UST) pit on the subject property. The thermal desorption was conducted to reduce the petroleum hydrocarbon concentrations to below the Washington Administrative Code (WAC) Chapter 173-340 cleanup standard for total petroleum hydrocarbons (TPH) of 200 mg/kg.

SCOPE OF SERVICES

The scope of services was defined in our Confirmation Proposal, dated September 21, 1994, and included the following items:

- Collect a soil sample from the first five cubic yards of treated soil, and collect one sample for every hundred cubic yard batch of treated soil thereafter, to confirm that treated soil meets WAC 173-340 standards. Arrange for 24-hour turn-around for analyses of soil samples using laboratory techniques certified by the Washington State Department of Ecology.

- Collect untreated soil samples of each batch in conjunction with treated samples. The untreated samples were to be analyzed if cleanup levels were not attained following treatment.

- Prepare a written summary report regarding site activities and the soil treatment results.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

SUMMARY OF RESULTS

Soil treatment was begun on October 4, 1994. Samples were collected on October 4 and 5 and on November 14, 17, 23, and 25, 1994. The samples were analyzed for total petroleum hydrocarbons using the WTPH-418.1 methodology by CCI Laboratories of Everett, Washington and Avocet Environmental Testing of Bellingham, Washington. The analytical results are included in the Appendix. The analytical results are summarized in Table 1.

Table 1

Date	Sample Number	Result (mg/kg)	Comments
10-4-94	941004-1	650	Treated soil. Failed
10-4-94	941004-2	700	Treated soil. Failed
10-4-94	941004-3	3,200	Untreated soil.
10-5-94	941005-1	16,000	Untreated soil
10-5-94	941005-2	240	Treated soil. Pass, >95% contaminant reduction
11-14-94	941114-1	3,000	Untreated soil.
11-14-94	941114-2	40	Treated soil. Pass
11-17-94	941117-2	1,000	Treated soil. Fail
11-23-94	112394-1	1,000	Treated soil. Fail. Second treatment.
11-25-94	#1	2,000	Untreated soil from bottom of excavation.
11-25-94	#2	800	Untreated soil. Previously treated two times.
11-25-94	#3	<100	Treated soil. Pass. Third treatment.

Soil treatment began on October 4, 1994, and three soil samples were collected. Two of the samples were of treated soil and the third sample was of untreated soil. Both treated soil samples failed to achieve the WAC 173-340 cleanup level. The untreated soil sample was analyzed to determine if contamination levels in the untreated soil was similar to the levels that Soaring Eagle, Inc. had proposed to treat. The TPH concentration in the soil was similar to our previous estimates for the untreated soil on the site.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

Two soil samples were collected on October 5, 1994. Soaring Eagle, Inc. had made adjustments to their treatment process based on the October 4, 1994 results. One sample was of untreated soil and one sample was of treated soil. The treated soil had a TPH concentration of 240 mg/kg, slightly above the WAC 173-340 standard of 200 mg/kg. Although this TPH result is slightly above the standard, the untreated soil had an unusually high TPH concentration of 16,000 mg/kg, considerably above the more typical TPH levels of 3,200 mg/kg our previous sampling of the untreated soil indicated. These two analyses indicated that soil treatment was 98.5% effective, and that typical concentrations of 3,200 mg/kg would be cleaned up to WAC 173-340 standard. We therefore concluded that this batch of soil had been effectively treated.

Because higher operating temperatures needed to be maintained, Soaring Eagle, Inc. moved their equipment off site in order to make the necessary equipment changes. Soil treatment began again on November 14, 1994. One untreated soil sample and one treated soil sample were collected on November 14, 1994. The analyses of the these two samples indicated that soil was being effectively treated and cleaned up to WAC 173-340 standards, and that this batch of soil needed no further treatment.

Two soil samples were collected on November 17, 1994. One sample was of treated soil, and the other sample was of untreated soil. Only the treated soil sample was analyzed. The results of this analysis indicated that the soil had not been cleaned up to WAC 173-340 standards, and therefore this batch of soil needed additional treatment.

One treated soil sample was collected on November 23, 1994. The analysis of this soil sample indicated that the soil had not been cleaned up to WAC 173-340 standards, and therefore a third soil treatment of this soil batch was required.

Three soil samples were collected on November 25, 1994. One sample was of soil that had previously been treated two times, and one sample was of soil that went through a third treatment. The results of the analyses indicated that the soil from this batch had been cleaned up to WAC 173-340 standards, and therefore no further soil treatment was needed.

The third soil sample collected on November 25, 1994 (Sample #1) was of soil from the bottom of the excavation. Soaring Eagle, Inc. believed that untreated soil contamination was higher than the 3,200 mg/kg that our previous sampling had indicated. The result of this analysis indicated that soil in the bottom of the excavation was lower than the average contamination we had estimated for the untreated soil stockpile.

December 16, 1994
Bellingham Stevedoring Company
Final Report - On-Site Thermal Desorption of Contaminated Soil

CONCLUSIONS

Based on the analytical results from both the treated and untreated soil samples, we believe that the soil stockpile at 206 and 208 McKenzie Street has been treated to the WAC 173-340 standard for TPH. It is our understanding that Bellingham Stevedoring plans to use the treated soil to backfill the UST pit on the property. Because contaminated soil remains in the sidewalls and bottom of the UST pit, we recommend that the pit is lined with an impermeable liner in order to prevent cross contamination of the cleaned up soil.

We appreciate the opportunity to provide our services. Should you have any questions or require further information, please contact our office at 676-9589.

Sincerely yours,

W.D. PURNELL & ASSOCIATES, INC.

Willard D. Purnell, P.E.G.
Professional Engineering Geologist

Jon Einarsen, Ph.D.
Geologist

Dan McShane, M.S.
Geologist

DM:ap

Attachments:

M:\93121\C.DIR\FnlRpt

Laboratories
Serving the Environmental, Aerospace and Defense Industries

OCT 1 1 1994
W. Purnell & Assoc. Inc

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 1
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-1 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	650	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: CJC

Laboratories

Serving the Environmental, Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 2
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-2 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	700	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

Laboratories

Serving the Environmental, Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: W.D. PURNELL AND ASSOC., INC.
2138 HUMBOLDT ST.
BELLINGHAM, WA 98227

DATE: 10/5/94
CCIL JOB #: 410009
CCIL SAMPLE #: 3
DATE RECEIVED: 10/4/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DAN MCSHANE

CLIENT PROJECT ID: BELLINGHAM STEVEDORING 93121C
CLIENT SAMPLE ID: 941004-3 10/4/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	3200	MG/KG	200MG/KG	10/5/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: CRA

3229 Pine St. Everett, WA 98201 206 258-4548 FAX 206 259-6289 Seattle 206 292-9059

3rd Party Billing!

CCI Laboratories
3229 Pine
Everett, WA 98201
Phone (206) 258-4548
(206) 292-9059 Seattle
(206) 259-6289 FAX

Bellingham Stevedoring
1801 Roeder Avenue
Suite 156
Bellingham, WA 98225
Attn: [redacted]
From Chuck

Chain of Custody / Laboratory Analysis Request

Date _____ Page _____ Of _____

PROJECT Bellingham Stevedoring # 9312 C

PROJECT MANAGER J. Fraser PH# 676-9589

REPORT/INVOICE MAILING ADDRESS W.D. Purnell & Associates
2158 Humboldt St.
Bellingham, WA

SAMPLER'S NAME Dan McShane PH# 676-9589

SAMPLE I.D.	DATE	TIME	TYPE	LAB #	WTPH-G	WTPH-D ☐ 8015 MODIFIED ☐	WPTH-418.1 24-hour rush	BTEX	WTPH-HCID	EPA 8020 ☐ 602 ☐	EPA 8010 ☐ 601 ☐	EPA 8240 ☐ 624 ☐ 8260 ☐	EPA 8270 ☐ 625 ☐	EPA 8080 ☐ 608 ☐ PCB only ☐ Pest only ☐	Metals Priority Pollutant ☐ RCRA ☐ TAL ☐	Metals Other (Specify)	TCLP Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herb ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. ~~941004-1~~ 941004-1	10-4-94		soil				X													
2. 941004-2	10-4-94						X													
3. 941004-3	10-4-94						X													
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

SPECIAL INSTRUCTIONS Need #1 and #2 results as soon as possible

POSSIBLE SAMPLE HAZARDS Oil, diesel

SIGNATURES (Name, Company, Date, and Time):

1. Relinquished By: [signature] 10-4-94
   Received By: [signature] CCI 10/4/94 3:30
2. Relinquished By: _____
   Received By: _____
3. Relinquished By: _____
   Received By: _____
4. Relinquished By: _____
   Received By: _____

AVOCET Environmental Testing
[illegible]00 North State Street
[illegible]ingham, WA 98225
(206) 734-9033

To: Purnell & Assoc.

AVOCET
ENVIRONMENTAL TESTING

Client	Purnell - Bellingham Stevedoring Company
Project	Purnell Job #94053
Chain of Custody	C4719
Contact Name	Irvin Chaynk or Dan McShane
Sample Date	10/5/94
Date Received	10/5/94
Date Extracted	10/6/94
Date Analyzed	10/6/94
Date Reported	10/11/94
Test Performed	WTPH - 418.1 HEAVY PETROLEUM OILS
Method	WTPH
Anaylst	A. Cardwell

Sample Source	Log Number	Sample Result	Units	Reporting Limit	% Solids
Method Blank	n/a	< 100	mg/kg	100	n/a
941005-1	5708424	16,000	mg/Kg	100	90
941005-2	5708425	240	mg/Kg	100	84

All results reported on a dry weight basis.

Copy sent to WD Purnell - Dan McShane.

JA

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04719

Avocet Environmental Testi
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-0061
TOLL FREE 800/442-TEST (8378)

Attn: Irvin Chmyk (Purnell)

CLIENT Bellingham Stevedoring Company

DAY PHONE

PO #

ADDRESS Harbo-Center 1801 Roeder Avenue Suite 156

FAX

CONTACT NAME Dan McShane 676-95

STATE, ZIP Bellingham, WA 98225

SYSTEM ID #

CIRCLE GROUP A B

COLLECTOR OF SAMPLE

E OR LOCATION OF SAMPLE IFFERENT FROM ABOVE)

JOB# 94053

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
41005-1	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE 10-5-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	570 8424
41005-2	↓	Glass ☒ Plastic ☐ VOA ☐	DATE TIME 10-5-94	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	570 8425
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

ARKS:

#1 may be high 3,000 ppm Send copy to Purnell – Dan McShane
#2 should be lower hopefully <200, but could be 3500

RELEASING SIGNATURE Dan McShane DATE 10-5-94 TIME 16:30

RECEIVING DATE TIME

RELEASING DATE TIME

RECEIVING DATE TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Irve Chayk
Chain of Custody	C4656
Date Sampled	11/14/94
Date Received	11/14/94
Date Extracted	11/15/94
Date Analyzed	11/15/94
Date Reported	11/17/94
Test Requested	WTPH - 418.1 Heavy Oil Petrolium Oils
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/kg	100
941114-1	5709479	3,000	mg/kg	200
941114-2	5709480	40	mg/kg	100

JoAnn Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04656

Avocet Environmental Test
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-00
TOLL FREE 800/442-TEST (8378)

Attn: Irva Chuyk

CLIENT Bellingham Stevedoring Co
Harbor Center
ADDRESS 801 Roeder Avenue Suite 156
CITY, STATE, ZIP Bellingham, WA

DAY PHONE
FAX
SYSTEM ID #
CIRCLE GROUP A B

PO #
CONTACT NAME
COLLECTOR OF SAMPLE
SOURCE #

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
941114-1	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE 11-14-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	
941114-2	↓	Glass ☒ Plastic ☐ VOA ☐	DATE 11-14-94 TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

REMARKS:
941114-1 may be high ≈ 3,000 ppm Call with Dan McShane with results asap

RELEASING SIGNATURE	DATE	TIME	RELEASING SIGNATURE	DATE	TIME
			Dan McShane	11-14-94	
RECEIVING SIGNATURE	DATE	TIME	RECEIVING SIGNATURE	DATE	TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

W.D. Purnell & Assoc. Inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Irve Chayk
Chain of Custody	C4756
Date Sampled	11/17/94
Date Received	11/17/94
Date Extracted	11/18/94
Date Analyzed	11/18/94
Date Reported	11/21/94 Updated 11/25/94
Test Requested	**WTPH - 418.1 Heavy Oil Petrolium Oils**
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	150	mg/Kg	100
941117-2	5709584	1,000	mg/Kg	100

All results reported on a dry weight basis.

copy to Dan McShane - W.D. Purnell & Associates

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04756

Avocet Environmental
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-006
TOLL FREE 800/442-TEST (8378)

CLIENT Bellingham Stevedoring Co
Harbor Center
ADDRESS 1801 Roeder Ave. Suite 156
Y, STATE, ZIP Bellingham, WA
Attn: Evan Chynk

DAY PHONE
FAX
SYSTEM ID #
CIRCLE GROUP A B

PO #
CONTACT NAME
COLLECTOR OF SAMPLE

ME OR LOCATION OF SAMPLE
DIFFERENT FROM ABOVE)

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
941117-2 11-21-94	Soil	Glass ☒ Plastic ☐ VOA ☐	DATE TIME 11-17-94	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709584
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

MARKS:
Results by Monday Nov 21, 1994 - Results called into Dan McShane at W. D. Purnell & Associates

EASING NATURE	DATE 11-17-94	TIME	
CEIVING NATURE	DATE 11-17-94	TIME 14.45	

RELEASING SIGNATURE	DATE	TIME
RECEIVING SIGNATURE	DATE	TIME

AVOCET ENVIRONMENTAL TESTING
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

W.D. Purnell & Assoc. inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Jon Einarsen - W.D. Purnell & Associates
Chain of Custody	C2841
Date Sampled	11/23/94
Date Received	11/23/94
Date Extracted	11/23/94
Date Analyzed	11/23/94
Date Reported	11/23/94
Test Requested	WTPH - 418.1 Heavy Oil
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/Kg	100
treated sample McKenzie Street sample#112394-1	5709682	1,000	mg/Kg	100

All results reported on a dry weight basis

copy to Jon Einarsen - W.D. Purnell & Associates

JoAnn Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY C 2841

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

CLIENT BELLINGHAM STEVEDORING ~~W.D. PURNELL & ASSOC.~~
ADDRESS Harbor Center 1801 Roeder Ave., Ste 156
CITY, STATE, ZIP Bellingham, WA 98225

DAY PHONE Purnell 676-9589 Jon Einarsen
EVE. PHONE
FAX
SYSTEM ID #

PO #
CONTACT NAME Jon Einarsen
COLLECTOR OF SAMPLE Purnell / Jon Einarsen
CLASS: A B

OTHER LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

LAB USE ONLY

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
treated sample ENZIE STREET SAMPLE # 112394-1	SOIL	Glass ☒ Plastic ☐ VOA ☐	DATE 11-23-94 TIME 0920	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709682
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

SIGNATURE Jon Einarsen DATE 11-23-94 TIME 0920
SIGNATURE DATE TIME

RELEASING SIGNATURE DATE TIME
RECEIVING DATE TIME

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(206) 734-9033

RECEIVED
DEC 2 1994
W.D. Purnell & Assoc. Inc.

AVOCET
ENVIRONMENTAL TESTING

Client	Bellingham Stevedoring Co.
Contact Name	Jon Einarsen - W.D. Purnell & Associates
Chain of Custody	C2841
Date Sampled	11/25/94
Date Received	11/25/94
Date Extracted	11/25/94
Date Analyzed	11/25/94
Date Reported	11/25/94
Test Requested	WTPH - 418.1 Heavy Oil
Matrix	Soil
Analyst	AC

Sample Source	Log #	Sample Result	Units	Reporting Limit
Method Blank	—	<100	mg/Kg	100
#1 208 McKenzie	5709715	2,000	mg/Kg	100
#2 208 McKenzie	5709716	800	mg/Kg	100
#3 208 McKenzie	5709717	<100	mg/Kg	100

All results reported on a dry weight basis

ccpy to Jon Einarsen - W.D. Purnell & Associates

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 04649

Avocet Environmental Inc.
1500 North State Street
Bellingham, WA 98225
(206) 734-9033 FAX (206) 734-0061
TOLL FREE 800/442-TEST (8378)

CLIENT Bellingham Shoreline Co ~~Purnell Ass~~ Harbor Center

DAY PHONE

PO #

ADDRESS 1501 Roeder Ave Suite 150

FAX

CONTACT NAME Dan McShane / Jan

CITY, STATE, ZIP Bellingham Wa

SYSTEM ID #

CIRCLE GROUP A B

COLLECTOR OF SAMPLE Eric Smith

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE)

SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
1 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709715
2 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	418.1	5709716
3 208 McKenzie		Glass ☑ Plastic ☐ VOA ☐	DATE 11-25-94 TIME 0845	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other	same day 418.1 turnaround	5709717
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ NaOH ☐ H_2SO_4 ☐ HNO_3 ☐ Other		

REMARKS: Verbal results on #3 by 5pm today DK

RELEASING SIGNATURE	DATE	TIME
Eric Smith		
RECEIVING SIGNATURE	DATE	TIME
DK	11/25/94	1:50PM

RELEASING SIGNATURE	DATE	TIME
RECEIVING SIGNATURE	DATE	TIME

APPENDIX E

Resumes of Environmental Professionals

Harold J. Cashman

Whatcom Environmental Services Inc.
119 N. Commercial St., #120
Bellingham, WA 98225
(360) 752-9571
hjcashman@whatcomenvironmental.com

Position

President
Years of professional experience: 15

Education

M.S., Geology, Western Washington University, 1991
B.S., Geology/Environmental Studies, St. Lawrence University, 1986
Indiana University Geological Field Mapping Techniques, 1986

Professional History

1997-Present: President, Whatcom Environmental Services
1991-1997: Project Manager/Geologist, K. W. Brown Environmental Services
1989-1991: Graduate Research Assistant, Western Washington University

Certifications/Training/Professional Organizations

Licensed Washington Professional Geologist #341 (hydrogeologist specialty)
Registered Washington State Underground Storage Tank Site Assessor
Certified Lead Sampling Technician
Certified Erosion and Sedimentation Control Lead

8-hour HAZWOPER for Supervisors and Managers (29 CFR 1910.120)
40-hour Personal Protection and Safety Training (29 CFR 1910.120)
RCRA Hazardous Waste Management Training (40 CFR 260-281)
Northwest Construction Consumer Council CSTOP Certified
Mold Awareness and Risk Management, 2002
Model Toxics Control Act Workshop, Washington Dept. of Ecology, 2001
Monitored Natural Attenuation for Groundwater, EPA, 1998
Natural Attenuation for Remediation of Contaminated Sites, NGWA, 1997
In-Situ and On-Site Bioreclamation, Battelle, 1995
Project Management Seminar, Skillpath, 1992
Applied Groundwater Modeling, IGWMC, 1992
Member Association of Ground Water Scientists and Engineers (AGWSE/NGWA)

Areas of Expertise

NPDES Permitting and Monitoring
Hydrogeologic site characterizations/monitoring well installation, development, and sampling
Voluntary Cleanup Program alternatives for Model Toxic Control Act sites
RCRA corrective action at SWMUs/ *in situ* closure of waste management units
Underground storage tank site assessment
Geologic mapping and hydrogeologic investigation of surficial stratigraphic units
Bioremediation of hydrocarbon-impacted soils
Monitored natural attenuation of hydrocarbon-impacted groundwater
Interaction and negotiation with environmental regulatory agencies

Typical Projects

Mr. Cashman assists a major industrial facility with ongoing NPDES Permit monitoring requirements. The project involves ongoing monitoring of the facility wastewater which is discharged to the Straits of Georgia. Mr. Cashman designed the discharge water monitoring plan, implemented the monitoring program, coordinated the laboratory analyses, and reviewed and summarized the data. The data are routinely submitted to the Washington Department of Ecology.

Mr. Cashman performed a Phase II Investigation of a gasoline fueling station in Ferndale, Washington. The project involved drilling six soil borings and the collection of soil and groundwater samples to delineate the extent of petroleum hydrocarbon contamination at the site. After the extent of the petroleum contamination was defined, Mr. Cashman assisted with the design and construction of a product recovery system and an air-sparging/vapor recovery system which is currently operating to remediate the site.

Mr. Cashman assisted the City of Bellingham with hydrocarbon remediation oversight at Whatcom Falls Park. On June 10, 1999 approximately 230,000 gallons of gasoline were released from the Olympic pipeline near the City of Bellingham Water Treatment Plant. The fuel spill infiltrated backfill material surrounding underground drinking water lines and migrated through bedrock fractures and bedding planes. Mr. Cashman's role in the project involved providing oversight of soil and groundwater remediation efforts conducted by the Olympic Pipeline Company's consultant (GeoEngineers). Mr. Cashman's responsibilities included providing excavation oversight, soil sample collection, review and modification of remedial system design, and review of subsurface investigation results. Mr. Cashman continues to provide input to the Department of Ecology, Olympic Pipeline, and the City of Bellingham regarding the progress of the site remediation.

Mr. Cashman characterized and delineated a dissolved hydrocarbon plume beneath a gasoline storage tankfarm. The project has been ongoing since 1992. Mr. Cashman has installed eleven monitoring wells at the site and is responsible for the collection of semi-annual groundwater monitoring samples from nineteen wells at the site. Through extensive soil and groundwater data analysis Mr. Cashman determined that monitored natural attenuation was a viable remedial option for the site, and the Washington Department of Ecology agreed.

Mr. Cashman managed the clean closure of Interim Status surface impoundments. He successfully negotiated with state and federal agencies to resolve numerous closure issues and receive approved closure plan. He coordinated activities between refinery personnel and

subcontractors involved in excavation and remediation activities. Mr. Cashman was responsible for soil and groundwater data interpretation and archiving throughout the closure process.

Mr. Cashman conducted a field investigation for several surface impoundments. The investigation included a soil investigation and hydrogeologic assessment. Activities included characterization of soil and groundwater contamination and hydraulic testing including bail and pump tests. The RFI project required the submittal of two reports to EPA and lengthy negotiations with EPA and their hydrogeologic consultant.

Mr. Cashman conducted a hazardous waste land treatment facility soil monitoring program and assisted with the installation of piezometers and lysimeters for soil pore liquid monitoring of hazardous waste land treatment units.

Mr. Cashman delineated the subsurface extent of a light non-aqueous phase liquid plume at a refinery release site. The delineation effort involved the installation of several dozen monitoring wells at the site. Mr. Cashman assisted with the design and installation of a pump and treat groundwater recovery system which was installed at the site.

Mr. Cashman provided litigation support which involved providing geologic and hydrogeologic interpretation for a site in Montana. Work involved aerial photo interpretation, extensive review of previous investigation work, and assistance with the construction of an ArcInfo database.

Mr. Cashman assisted with the setup and calibration of a groundwater flow model used to simulate recovery of contaminated groundwater from a site in Virginia. He studied a range of existing and proposed groundwater remediation systems by simulating groundwater flow and transport of dissolved-phase hydrocarbons in a highly inhomogeneous, anisotropic aquifer using groundwater flow model code SUTRA.

Mr. Cashman prepared a RCRA Class 3 Permit Modification for a major oil refiner. The document revised the closure and post closure plans (including soil and groundwater monitoring schedules and target cleanup levels) for a land treatment facility and a container storage area.

Mr. Cashman prepared a RCRA Part B Permit Application for the treatment and storage of dangerous waste at the Ferndale Refinery. Mr. Cashman prepared a complete description of the geologic and hydrogeologic setting beneath the facility. The application included a summary of all groundwater monitoring data collected at the facility since the early 1980's.

Mr. Cashman conducted a remedial investigation/feasibility study at a 3.25 acre demolition waste landfill. The project involved the installation of nine soil borings and six monitoring wells using direct-push drilling techniques. The quality of perched groundwater and vadose zone soils beneath and adjacent to the landfill was evaluated and found to be clean.

Mr. Cashman has investigated and closed numerous leaking underground storage tanks in the Bellingham area. Mr. Cashman has documented numerous MTCA independent remedial actions in Whatcom County resulting from petroleum releases to soil and groundwater.

Mr. Cashman assisted with the preparation of a Spill Prevention Control and Countermeasure (SPCC) Plan for a major LPG storage facility. He also evaluated the stormwater discharge permit compliance status for the facility.

Mr. Cashman reviewed a due diligence baseline site assessment for a major refinery. Project involved evaluating the regulatory compliance history of numerous sites at the facility. Sites were prioritized according to State and Federal regulatory programs, and recommendations for future remedial action were compiled.

Mr. Cashman completed cleanup of a solid waste management unit involving hydrocarbon soil contamination from a leaking solvent drum rack and subsequently received EPA approval and removal of the site from the facility RCRA Facility Investigation (RFI).

Mr. Cashman prepared a groundwater monitoring plan for three newly regulated surface impoundments under the TC Rule at a facility wastewater treatment plant. The project involved both the hydrogeologic characterization of the site as well as the determination and negotiation of a suitable groundwater monitoring plan meeting all regulatory requirements.

Mr. Cashman conducted a site characterization of a gasoline release to groundwater at an industrial site. He assisted with MTCA reporting requirements and successfully argued that the groundwater contamination discovered was not the result of past management practices but was rather the result of a spill from a leaking pipeway and therefore fell under MTCA jurisdiction. Mr. Cashman assisted in the design and installation of a free-phase product recovery system at the site.

Presentations and Publications

Miller, M., H.J. Cashman, and E.D. Libolt. 2004. Acme Fuel Tanker Spill: Interagency Cooperation and Cleanup. Presented at the 2004 Environmental Health: Leading the Way Annual Educational Conference.

Lindsay, C. S., H. J. Cashman, and M. D. Watkins. 1995. Stratigraphy and Hydrogeology of the Mountain View Upland, Whatcom County, Washington. Presented at the 1st Symposium on the Hydrogeology of Washington State.

Engebretson, D. C., K. P. Kelley, H. J. Cashman, and M. A. Richards. 1992, 180 Million years of subduction, *GSA Today*, 2, 93-100.

Cashman, H. J. 1990. A New Determination of Pacific-Kula Relative Motions. Unpublished Master of Science thesis, Western Washington University, Bellingham, WA.

Engebretson, D. C., K. P. Kelley, and H. J. Cashman. 1990. Estimates for global subduction parameters since 180 Ma, *EOS, Trans. AGU*, 71, 1575.

Cashman, H. and D. Engebretson. 1989. Evaluation of possible asymmetric spreading in the vicinity of the Pacific-Farallon-Kula triple junction. *EOS, Trans. AGU*, 70,1342.

Engebretson, D., H. Cashman, and K. Kelley, 1989. Review and implications of global patterns in asymmetric seafloor accretion, *Geol. Soc. Amer. Abstracts with Programs*, 21, 35.

Thomas A. Davis

Whatcom Environmental Services
119 North Commercial Street #120
Bellingham, WA 98225
office (360) 752-9571
tdavis@whatcomenvironmental.com

Position

Project Manager/GIS Technician
Years of Experience: 3

Education

B.S., Geology, Western Washington University, 1997

Professional History

July 2002-Present: GIS Tech/Project Manager, Whatcom Environmental Services

Certifications/Training

Class-A Commercial Drivers License – WA
Northwest Construction Consumer Council C-STOP certified
ICC Certified Washington State UST Site Assessor

Areas of Expertise

Geographic Information System (GIS) design and maintenance
NPDES Surface Water Sampling and Data Review
Phase I Environmental Site Assessments
UST Site Assessment
Investigation of Landslide Hazards
Geophysical Techniques – GPR, Seismic Refraction, Resistivity, Magnetic and Gravitational Surveys
Geologic Mapping & Soil Surveying

Typical Projects

- Preparation of site maps and figures using ESRI GIS software.
- Design, creation, and maintenance of a GIS for the Oily Water and Phenolic Sewer system of a local refinery.
- Preparation of Phase I Environmental Site Assessments.
- Underground Storage Tank site assessments
- Research into the locations and subsurface extents of Whatcom County Coal Mines

June 20, 2007

Mr. Geoff Smyth
City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

RE: 210 McKenzie Avenue - Underground Storage Tank Removal and Site Assessment

Mr. Smyth:

Whatcom Environmental Services (WES) has completed the Site Assessment of an Underground Storage Tank (UST) closure conducted at 210 McKenzie in the Fairhaven neighborhood of Bellingham, Washington. One unregulated, abandoned 600 gallon gasoline UST was removed from the site on April 4, 2007. This letter report was prepared by WES for the City of Bellingham. The information provided in the report supplements the completed UST Site Check/Site Assessment Checklist, which is included as Appendix A. A copy of the Bellingham Fire Department Permit is included as Appendix B.

Site Setting

The UST was located at 210 McKenzie Avenue in Bellingham, Washington. The property is located in the southeast quarter of the southeast quarter of Section 2, Township 37 North, Range 2 East. The site is located within the city limits of Bellingham, Washington in an area zoned as Industrial. A site location map is provided as Figure 1. The subject property covers approximately 3.3 acres. The UST was located in the north central portion of the property between two buildings, as shown on Figure 2. It is unknown when the tank was installed or abandoned. The tank was used to store gasoline, based on a reference to the tank found on a 1950 Sanborn fire insurance map.

Soils in the area of the subject property are described in the Soil Survey of Whatcom County Area, Washington (U.S. Department of Agriculture [USDA], 1992). The soil on the subject property is described as Urban Land with 0 to 3 percent slopes. Urban Land consists of areas covered by streets, parking lots, and other structures that so obscure the soils that identification of the soil series is not feasible. The average annual precipitation at the property is approximately 35 inches, the average annual air temperature is approximately 50° F, and the average frost-free period is approximately 170 days.

The bedrock under the site is part of the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

The median elevation of the site is approximately 25 feet above mean sea level. The site topography is generally level.

The depth to groundwater is unknown at the site. Groundwater was not encountered in the excavated tank pit. A small volume of perched water was observed in the excavation and a sample of the pit water was collected for analysis. No groundwater monitoring wells were located in the vicinity of the excavation.

Tank Closure

Mr. Thom Davis and Mr. Harold Cashman of WES observed the removal of the UST from the property. The tank closure and removal work occurred on April 4th, 2007. Both Mr. Davis and Mr. Cashman are registered with the State of Washington as underground storage tank site assessors.

On April 4th, 2007, a 600 gallon, single walled steel tank was removed from the ground at 210 McKenzie Avenue. The tank was overlain by approximately 4.5 feet of sandy gravel backfill material. Surface evidence of the tank was limited to a single 2-inch product pipe which is assumed to have fed a dispenser that sat directly above the west end of the tank. Excavation revealed an approximately 4 inch fill pipe 1.5 feet west of the product pipe and a vent line which had been routed from the east end of the tank, towards the west, apparently to the wall of the northern building. No evidence of surface spillage was observed near the fill spout. No evidence of the vent pipe was observed on the building. During excavation, a PVC roof drain line and a metal conduit pipe were exposed along the southern edge of the excavation. A detailed site map depicting all important site features is provided as Figure 3.

When uncovered, the UST was found to contain approximately 600 gallons of water. The tank was pumped dry prior to removal from the ground. No leak detection system, secondary containment system, or cathodic protection system was associated with the tank. When removed from the ground, the tank appeared in poor condition with extensive corrosion and pitting. Numerous holes were observed on the tank exterior, mainly on the top and sides of the tank. Two holes were observed on the bottom of each end of the tank on the weld seams.

The tank was removed from the ground, cleaned, and disposed of at a licensed steel recycling facility. Following soil sample collection, the excavation was backfilled with the excavated sandy gravel material and imported pit run gravel.

During the UST removal, WES personnel field screened excavated material by conducting sheen tests and by using a photoionization detector (PID) to evaluate the soil for organic vapors. None of the material excavated from above or beside the tank exhibited a sheen or organic vapors. After the tank was removed from the ground, a small area of soil below the west end of the tank was found to have elevated organic vapor readings and to exhibit a moderate sheen. The volume of impacted soil was estimated at 1-2 cubic yards. There was no evidence of a significant release from the tank based on field screening observations.

Soil Sampling

A total of four soil samples were collected from the tank pit excavation. Two discrete samples were collected from soil beneath the tank and two discrete samples were collected from two of the excavation sidewalls. Tank pit soil samples were collected from the excavator bucket using Method 5035A. Soil sample locations are indicated on Figure 3.

Soil was placed in sample containers provided by the lab, cooled with ice, and shipped to CCI Analytical Laboratories in Everett, Washington. CCI is accredited by Ecology.

The soil samples were analyzed for gasoline range Total Petroleum Hydrocarbons (TPH) using Method NWTPH-Gx; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl-tertiary butyl ether (MTBE) using EPA Method 8021. Two soil samples were also analyzed for lead using EPA Method 6010. One sample (sample PCS-1) collected from immediately below the west end of the tank was also analyzed for diesel and lube-oil range TPH using method NWTPH-Dx.

Soil Sample Descriptions and Analytical Results

Soil sample SS-1 was collected from the center of the west sidewall at a depth of approximately 6 feet bgs. The sample consisted of brown silty fine sand with gravel that was hard and dry. The sample did not register a detection on the PID or exhibit a sheen. Soil sample SS-1 did not contain detectable concentrations of gasoline range TPH, BTEX constituents, or MTBE. Soil sample descriptions and results of field screening analysis are summarized in Table 1. Soil sample laboratory analytical data are summarized in Table 2. The original laboratory analytical data are provided in Appendix C.

Soil sample SS-2 was collected from center of the northern sidewall at a depth of approximately 6.5 feet bgs. The sample consisted of brown sand with gravel that was loose and moist. The sample did not register a detection on the PID or exhibit a sheen. Soil sample SS-2 did not contain detectable concentrations of gasoline range TPH, BTEX constituents, MTBE, or lead.

Soil sample SS-3 was collected from the floor of the excavation beneath the western end of the removed UST at a depth of approximately 8.5 feet bgs. The sample was collected 1 foot below soil sample PCS-1 (discussed below). The sample consisted of brown sand with gravel that was loose and wet. The sample registered a detection on the PID of 9.0 ppm and exhibited a very slight sheen. Soil sample SS-3 did not contain detectable concentrations of gasoline range TPH, BTEX constituents, or MTBE.

Soil Sample PCS-1 Discussion

Soil sample PCS-1 was collected from immediately below the western end of the tank below the fill and dispenser pipes at a depth of approximately 7.5 feet bgs. The sample consisted of gray sand with minor gravel that was loose and wet. The sample registered an organic vapor detection on the PID of 199 parts per million (ppm) and exhibited a moderate sheen. The sample was collected to characterize the small volume of potentially impacted soil (estimated at 1-2 cubic yards) observed beneath the western end of the tank below the fill spout.

Laboratory results showed that soil sample PCS-1 did not contain detectable concentrations of diesel or lube-oil range TPH, benzene, or MTBE. The sample did contain detectable concentrations of toluene, ethylbenzene, xylenes, and lead at levels well below the MTCA Method A cleanup standards, as shown on Table 2. Gasoline range TPH was detected at a concentration of 1,000 mg/kg, which exceeds the applicable MTCA Method A cleanup level, as shown on Table 2. The lab reported that the sample contained extremely weathered gasoline.

Because soil sample PCS-1 contained extremely weathered gasoline at a concentration above the MTCA Method A target cleanup level, the sample was analyzed using Washington State Department of Ecology's Volatile Petroleum Hydrocarbon (VPH) method in order to compare the soil analytical results to MTCA Method B cleanup levels for unrestricted land-use. MTCA Method B cleanup levels are based on the reasonable maximum exposure expected to occur at the site and are used to evaluate direct contact, leaching, and vapor pathways using equations provided in WAC 173-340. In order to develop Method B cleanup levels, Ecology has established the MTCATPH Workbook for Calculating Cleanup Levels for a Petroleum Mixture (Ecology, 2001). The MTCATPH workbook uses pre-established chemical and toxicity data, risk-based exposure assumptions, and user-defined site specific information to calculate the site risk under current conditions. In order to use the workbook, the Method VPH laboratory analysis is required. Method VPH analytical results are summarized in Table 3. The original laboratory analytical data are included in Appendix C.

The petroleum equivalent carbon (EC) fraction and targeted analyte data from the VPH analysis were inserted into the MTCA TPH Workbook Data Entry Worksheet. The results showed that the minor amount of contaminated soil located beneath the UST met the soil direct contact exposure pathway criteria for unrestricted land use and

did not pose a threat to potable groundwater. The results indicated that the small volume of impacted soil located below the west end of the tank meets applicable MTCA Method B cleanup levels and is therefore not considered a threat to human health or the environment. The Data Entry Worksheet and the Soil Direct Contact Pathway Worksheet are provided in Appendix D.

Pit Water Sampling and Analytical Results

One water sample was collected from the pit water in the tank pit excavation. The sample was identified as 'Pit Water', and was collected from near the center of the tank pit excavation. An extendable pole with a clean, lab supplied poly bottle attached to the end was used to acquire the water sample. The water sample location is indicated on Figure 2. Water was transferred to sample containers provided by the lab, cooled with ice, and shipped to the lab.

The pit water sample was analyzed for gasoline range TPH using Method NWTPH-Gx; as well as BTEX constituents and MTBE using EPA Method 8021.The sample did not contain detectable concentrations of gasoline range TPH, BTEX constituents, or MTBE.

Conclusions

On April 4, 2007, one unregulated, abandoned 600 gallon gasoline UST was removed from the ground at 210 McKenzie Avenue in Bellingham, Washington. Visual observations and field screening results indicated that a minor amount of petroleum product had been released to the soil at the site. Soil and water samples were collected from the tank pit excavation to confirm that the UST had not caused a significant release to soil or groundwater at the site. The soil analytical data met the appropriate MTCA Method A and Method B cleanup levels for unrestricted land use; therefore, the site does not pose a threat to human health or the environment.

Please use this letter and the attached site location figures, UST Site Check/Site Assessment Checklist, and soil analytical data to document compliance with Underground Storage Tank requirements (WAC 173-360).

Sincerely,

Thomas A. Davis
Project Manager, Whatcom Environmental Services

TAD: tad
Attachments

References

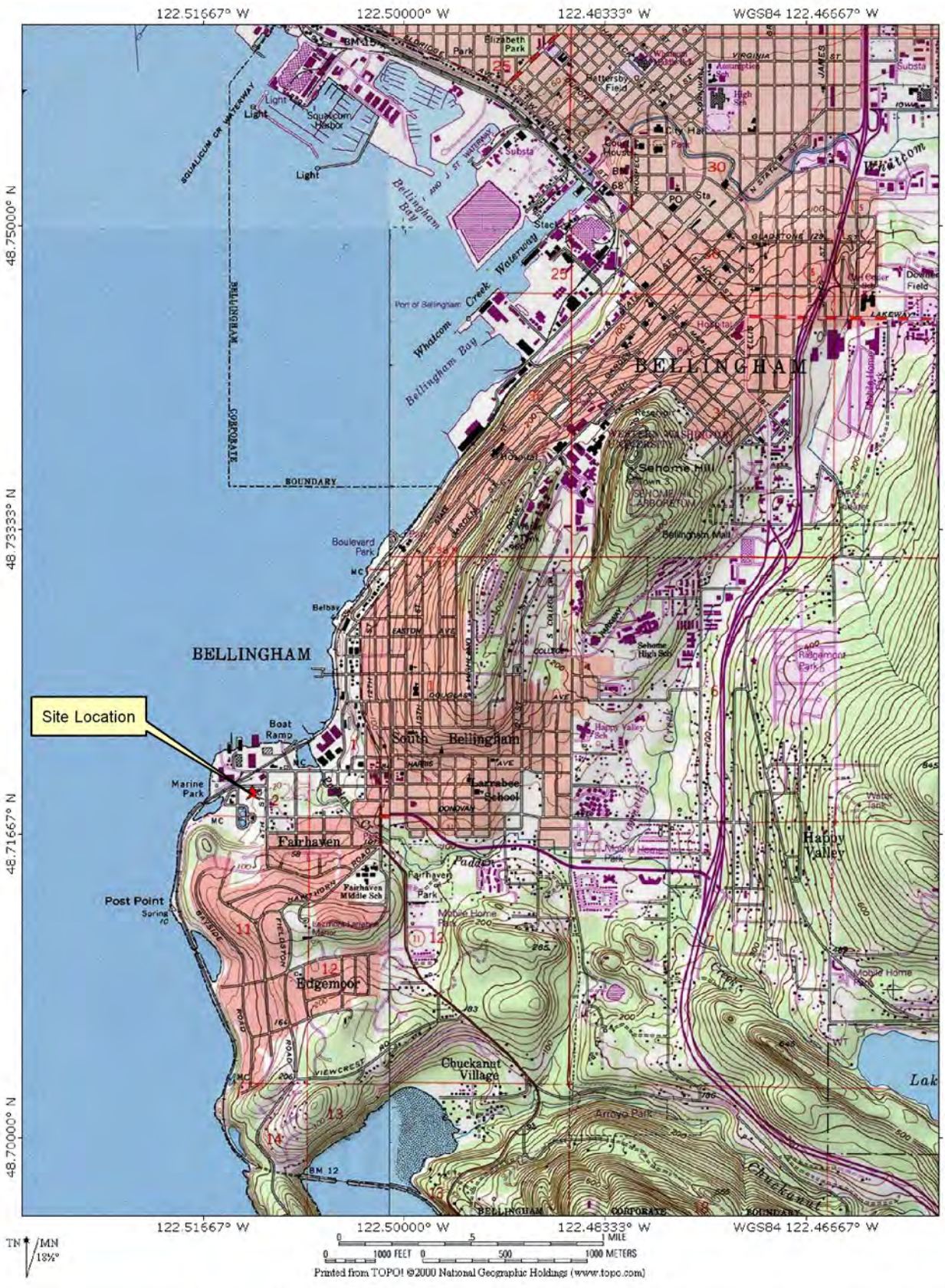
Lapen, T.J. 2000. Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington. 36pp.

U.S. Department of Agriculture (USDA). 1992. Soil Survey of Whatcom County Area, Washington. Soil Conservation Service.481pp. (http://soils.usda.gov/survey/printed_surveys/washington.html).

Washington State Department of Ecology. 1998. Underground Storage Tank Statute and Regulations Chapter 173-360 WAC. Publication No. 95-604.

Washington State Department of Ecology. 2001. Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC. Publication No. 94-06. February 12, 2001.

Washington State Department of Ecology. 2001. Workbook Tools for Calculating Soil and Groundwater Cleanup Levels under the Model Toxics Control Act. Publication No. 01-09-073. August 2001.



Prepared for:	Prepared by:	
City of Bellingham	WES Whatcom Environmental Services	Site Location Map
		McKenzie UST 4/4/07 — Figure 1

All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

30 15 0 30 60 90 Feet
1 inch equals 60 feet

UST Excavation
Structures
Subject Property

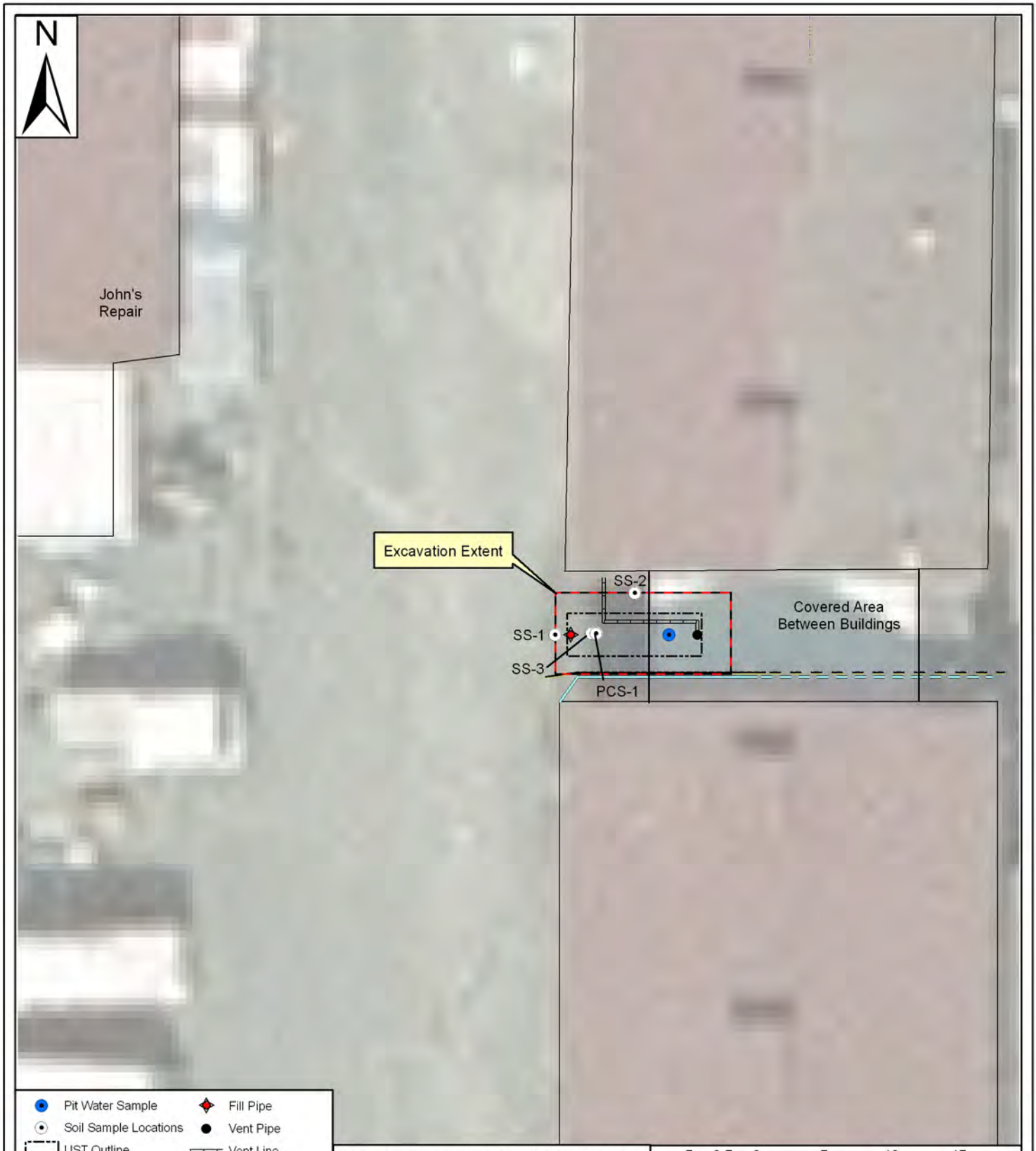
Prepared for:
City of Bellingham

Prepared by:
WES
Whatcom Environmental Services

UST Location Map

McKenzie UST
6/20/07

Figure 2



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

5 2.5 0 5 10 15 Feet

1 inch equals 10 feet

Prepared for:

City of Bellingham

Prepared by:

WES
Whatcom Environmental Services

Soil Sample Location Map

McKenzie UST

4/4/2007

Figure 3

Table 1. Soil Sample Descriptions - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Depth (ft)	Location and Description	Sheen Test	PID (ppm)
SS-1*	4/4/2007	6.0	Collected from the center of the west sidewall Silty fine sand with gravel, brown, hard, dry	No Sheen	0.0
SS-2*	4/4/2007	6.5	Collected from the center of the north sidewall Sand with gravel, brown, loose, moist	No Sheen	0.0
SS-3*	4/4/2007	8.5	Collected from below the west end of the UST near the fill pipe Sand with gravel, brown, loose, moist	Very Slight Sheen	9.0
PCS-1*	4/4/2007	7.5	Collected as a characterization sample from PCS below west end of the UST, approximately 1 ft. above SS-3 Sand with minor gravel, gray, loose, wet	Moderate Sheen	199

* - Samples collected using EPA Method 5035A

Table 2. Soil Sample Analytical Results - 210 McKenzie Avenue, Bellingham, WA

Soil Samples

Sample ID	Date	NWTPH-Gx Gasoline Range mg/kg	NWTPH-Dx Diesel Range mg/kg	NWTPH-Dx Lube-Oil Range mg/kg	EPA-8021 MTBE mg/kg	EPA-8021 Benzene mg/kg	EPA-8021 Toluene mg/kg	EPA-8021 Ethylbenzene mg/kg	EPA-8021 Xylenes mg/kg	EPA-6010 Lead mg/kg
SS-1	4/4/2007	ND(<3)	NA	NA	ND(<1.0)	ND(<0.3)	ND(<0.05)	ND(<0.05)	ND(<0.2)	NA
SS-2	4/4/2007	ND(<3)	NA	NA	ND(<1.0)	ND(<0.3)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<5)
SS-3	4/4/2007	ND(<3)	NA	NA	ND(<1.0)	ND(<0.3)	ND(<0.05)	ND(<0.05)	ND(<0.2)	NA
PCS-1	4/4/2007	**1,000**	ND(<91)	ND(<50)	ND(<0.1)	ND(<0.03)	0.11	0.28	0.6	12
MTCA Method A Clean-up Levels		100/30*	2,000	2,000	0.1	0.03	7.0	6.0	9.0	250

Water Sample

		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PIT WATER	4/4/2007	ND(<50)	NA	NA	ND(<3)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	NA
MTCA Method A Clean-up Levels		1,000/800*	500	500	20	5	700	1000	1000	15

ND- indicates TPH was not detected at level above reporting limit (shown in parentheses)

NA- indicates the sample was Not Analyzed for the specified analyte

BOLD indicates the sample exceeds MTCA Method A cleanup levels

* - Cleanup level dependent on BTEX concentrations

Table 3. Volatile Petroleum Hydrocarbons Analytical Data - 210 Mckenzie Avenue, Bellingham, WA

Analyte	Sample ID	**PCS-1** (mg/kg)	**Method B Criteria**
NWTPH-Dx			
Diesel Range		ND(<91)	
Lube-Oil Range		ND(<50)	
NWTPH-Gx			
Gasoline Range		1,000	
Aliphatics			
>C5-C6		ND(<25)	
>C6-C8		ND(<25)	
>C8-C10		100	
>C10-C12		NA	
>C12-C16		NA	
>C16-C21		NA	
>C21-C34		NA	
Aromatics			
>C8-C10		87	
>C10-C12		NA	
>C12-C16		NA	
>C16-C-21		NA	
>C21-C34		NA	
EPA Method 8021			
MTBE		ND(<0.1)	
Benzene		ND(<0.03)	
Toluene		0.11	
Ethylbenzene		0.28	
Total Xylenes		0.6	
Hexane		ND(<1)	

		Criteria
Method B Hazard Index	0.05730	1
Method C Hazard Index	0.002910	1
Method B Potable GW Hazard Index	0.889	1
Method B Risk	8.26E-10	1.00E-06
Method C Risk	1.11E-10	1.00E-05
Method B Potable GW Risk	1.96E-06	1.00E-06

NA indicates that sample was not analyzed for the analyte

ND indicates that sample was non-detect for analyte at level indicated in parenthesis

APPENDIX A

UST Site Check/Site Assessment Checklist

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

FOR OFFICE USE ONLY
Site #: _____
Owner #: _____

INSTRUCTIONS

When a release has not been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by IFCI or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This information must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
PO Box 47655
Olympia WA 98504-7655

SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): _____

Site/Business Name: **The City of Bellingham**

Site Address: **210 McKenzie Avenue** (Street) Telephone: (___)_____

Bellingham (City) **WA** (State) **98225** (Zip Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
Tank #1	**600 gallons**	**Assumed Gasoline**

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

_____ Investigate suspected release due to on-site environmental contamination.
_____ Investigate suspected release due to off-site environmental contamination.
_____ Extend temporary closure of UST system for more than 12 months.
_____ UST system undergoing change-in-service.
XXX UST system permanently closed with tank removed.
_____ Abandoned tank containing product.
_____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
_____ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.	YES	NO
1. The location of the UST site is shown on a vicinity map.	"	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	"	
3. A summary of UST system data is provided. (see Section 3.1.)	"	
4. The soils characteristics at the UST site are described. (see Section 5.2)	"	
5. Is there any apparent groundwater in the tank excavation?		
6. A brief description of the surrounding land use is provided. (see Section 3.1)	"	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	"	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	"	
- groundwater samples distinguished from soil samples (if applicable)	"	
- samples collected from stockpiled excavated soil		"
- tank and piping locations and limits of excavation pit	"	
- adjacent structures and streets	"	
- approximate locations of any on-site and nearby utilities	"	
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	"	
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	"	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	"	

12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred.		"

SITE ASSESSOR INFORMATION

Thomas A. Davis
Person registered with Ecology

Whatcom Environmental Services, Inc.
Firm Affiliated with

Business Address: **119 N. Commercial #120**
Street

Telephone: (360) **752-9571**

Bellingham — City
WA — State
98225 — Zip Code

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

5/15/07
Date

Signature of Person Registered with Ecology

APPENDIX B

Bellingham Fire Department Permit

BELLINGHAM FIRE DEPARTMENT
Life Safety Division
1800 Broadway
Bellingham, WA 98225-3133

PERMIT

COMMERCIAL TANK ABANDONMENT OR REMOVAL

HAVE THIS PERMIT ON SITE DURING FIRE DEPARTMENT INSPECITON

Site Address: 210 mckenzie	
Tenant	Telephone
Property Owner: City of Bellingham	Telephone
Contractor: Ultra Tank Services, Inc	Telephone: 360-734-7611
Lic. #: Ultrats033CK	# of tanks to be filled: Removed: 1

**The Washington State Department of Ecology must be notified in writing 30 days in advance to tank closure.
**A State-approved site assessment must be performed by a licensed tank services provider.
**Contact the Life Safety Division of the Bellingham Fire Department at 676-6832 at least 24 hours in advance to arrange to have an Inspector witness the filling or removal.

NOTE: Signatures below confirm only tank closure was performed to satisfy requirements of the Uniform Fire code, and do not confirm presence or absence of product in the ground.

ABANDONMENT IN PLACE

**Comply with the attached procedures for abandoning and filling tanks in place.
**A Fire Department employee signature below constitutes confirmation the tank filling occurred and was inspected.

INSPECTION DATE _____ WITNESSED BY _____

TANK REMOVAL

**Comply with the attached procedures for abandoning and removing tanks.
**A Fire Department employee signature below constitutes confirmation the tank removal occurred.

INSPECTION DATE 4/4/07 WITNESSED BY _____

Copies: White-Fire Department Yellow-Owner/Tenant Pink-Contractor Gold-Dept. of Ecology

LSDF 194

APPENDIX C

Original Laboratory Analytical Data

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST
CLIENT SAMPLE ID: 4/4/2007 11:00 SS-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/9/2007	GAP
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/9/2007	GAP
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/9/2007	GAP
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/9/2007	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.
NOTE: TOTAL ALIPHATICS AND AROMATICS ARE BASED ON EC RANGE "ND" RESULTS SUMMED AT 1/2 OF REPORTING LIMIT

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST
CLIENT SAMPLE ID: 4/4/2007 11:15 SS-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/9/2007	GAP
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/9/2007	GAP
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/9/2007	GAP
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/9/2007	GAP
Lead	EPA-6010	ND(<5.0)	MG/KG	4/6/2007	ICP

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST
CLIENT SAMPLE ID: 4/4/2007 11:30 SS-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/9/2007	GAP
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/9/2007	GAP
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/9/2007	GAP
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/9/2007	GAP
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/9/2007	GAP
Total Organic Carbon (TOC)	EPA-9060	0.37	%	5/1/2007	ARI

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APPROVED BY:

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST
CLIENT SAMPLE ID: 4/4/2007 11:20 PCS-1
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	1000	MG/KG	4/10/2007	GAP
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/9/2007	GAP
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/9/2007	GAP
Toluene	EPA-8021	0.11	MG/KG	4/9/2007	GAP
Ethylbenzene	EPA-8021	0.28	MG/KG	4/9/2007	GAP
Xylenes	EPA-8021	0.6	MG/KG	4/9/2007	GAP
C5-C6 Aliphatics	WDOE VPH	ND(<25)	MG/KG	4/17/2007	GAP
>C6-C8 Aliphatics	WDOE VPH	ND(<25)	MG/KG	4/17/2007	GAP
>C8-C10 Aliphatics	WDOE VPH	100	MG/KG	4/17/2007	GAP
>C8-C10 Aromatics	WDOE VPH	87	MG/KG	4/17/2007	GAP
Total Aliphatics	WDOE VPH	125	MG/KG	4/17/2007	GAP
Total Aromatics	WDOE VPH	87	MG/KG	4/17/2007	GAP
Hexane	WDOE VPH	ND(<1)	MG/KG	4/17/2007	GAP
TPH-Diesel Range	NWTPH-DX	ND(<91)	MG/KG	4/6/2007	DLC
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/6/2007	DLC
Lead	EPA-6010	12	MG/KG	4/6/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY EXTREMELY WEATHERED GASOLINE.

REPORTING LIMIT FOR DIESEL RANGE PRODUCT RAISED DUE TO VOLATILE RANGE PRODUCT OVERLAP.

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NOTE: TOTAL ALIPHATICS AND AROMATICS ARE BASED ON EC RANGE "ND" RESULTS SUMMED AT 1/2 OF REPORTING LIMIT

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST
CLIENT SAMPLE ID: 4/4/2007 11:10 PIT WATER
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	4/9/2007	GAP
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	4/9/2007	GAP
Benzene	EPA-8021	ND(<1)	UG/L	4/9/2007	GAP
Toluene	EPA-8021	ND(<1)	UG/L	4/9/2007	GAP
Ethylbenzene	EPA-8021	ND(<1)	UG/L	4/9/2007	GAP
Xylenes	EPA-8021	ND(<3)	UG/L	4/9/2007	GAP

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DATE: 5/7/2007
CCIL JOB #: 0704031
DATE RECEIVED: 4/5/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE UST

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704031-01	NWTPH-GX	TFT	99
0704031-01	EPA-8021	TFT	100
0704031-02	NWTPH-GX	TFT	82
0704031-02	EPA-8021	TFT	85
0704031-03	NWTPH-GX	TFT	92
0704031-03	EPA-8021	TFT	95
0704031-04	NWTPH-GX	TFT	*
0704031-04	EPA-8021	TFT	113
0704031-04	WDOE VPH	TFT - Aliphatic	*
0704031-04	WDOE VPH	TFT - Aromatic	*
0704031-04	WDOE VPH	TFT - Hexane	*
0704031-04	NWTPH-DX	C25	94
0704031-05	NWTPH-GX	TFT	107
0704031-05	EPA-8021	TFT	106

* SURROGATE OUTSIDE OF CONTROL LIMITS DUE TO DILUTION

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/4/07 Page 1 Of 1

PROJECT ID: 210 McKenzie UST
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Harold — Thom
ADDRESS: 119 N. Commercial #120
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: hjcashman > tdavis
INVOICE TO COMPANY: same
ATTENTION:
ADDRESS:

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021B/EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Lead (Pb)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify) Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. SS-1	4/4/07	11:00	S				X	X	X												2	
2. SS-2		11:15					X	X	X									X		X		
3. SS-3		11:30					X	X	X													
4. PCS-1		11:20				X	X	X	X									X				
5. Pit Water		11:10	W				X	X	X													
6.																						
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: _____, WES, 4/4/07, 14:00
Received By: _____
2. Relinquished By: _____
Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: [10 Standard] [5] [3] [2] [1] [SAME DAY]

Fuels & Hydrocarbon Analysis: [5 Standard] [3] [1] [SAME DAY]

OTHER:
Specify: _____

* Turnaround request less than standard may incur Rush Charges

APPENDIX D

MTCATPH Workbook Worksheets

A1 Soil Cleanup Levels: Worksheet for Soil Data Entry: Refer to WAC 173-340-720, 740,745, 747, 750

1. Enter Site Information

Date: 04/04/07
Site Name: 210 McKenzie Ave
Sample Name: PCS-1

2. Enter Soil Concentration Measured

Chemical of Concern or Equivalent Carbon Group	Measured Soil Conc dry basis mg/kg	Composition Ratio %
Petroleum EC Fraction		
AL_EC >5-6	**12.5**	5.85%
AL_EC >6-8	**12.5**	5.85%
AL_EC >8-10	100	46.83%
AL_EC >10-12		0.00%
AL_EC >12-16		0.00%
AL_EC >16-21		0.00%
AL_EC >21-34		0.00%
AR_EC >8-10	87	40.74%
AR_EC >10-12		0.00%
AR_EC >12-16		0.00%
AR_EC >16-21		0.00%
AR_EC >21-34		0.00%
Benzene	**0.015**	0.01%
Toluene	0.11	0.05%
Ethylbenzene	0.28	0.13%
Total Xylenes	0.6	0.28%
Naphthalene		0.00%
1-Methyl Naphthalene		0.00%
2-Methyl Naphthalene		0.00%
n-Hexane	**0.5**	0.23%
MTBE	**0.05**	0.02%
Ethylene Dibromide (EDB)		0.00%
1,2 Dichloroethane (EDC)		0.00%
Benzo(a)anthracene		0.00%
Benzo(b)fluoranthene		0.00%
Benzo(k)fluoranthene		0.00%
Benzo(a)pyrene		0.00%
Chrysene		0.00%
Dibenz(a,h)anthracene		0.00%
Indeno(1,2,3-cd)pyrene		0.00%
Sum	213.555	100.00%

Notes for Data Entry | Set Default Hydrogeology

Clear All Soil Concentration Data Entry Cells

Restore All Soil Concentration Data cleared previously

REMARK:
BOLD input parameter indicates half detection limit for Non-Detected (ND) constituent.

Fraction Organic Carbon (FOC) value calculated by lab from clean sample SS-3.

3. Enter Site-Specific Hydrogeological Data

Total soil porosity:	0.43	Unitless
Volumetric water content:	0.3	Unitless
Volumetric air content:	0.13	Unitless
Soil bulk density measured:	1.5	kg/L
Fraction Organic Carbon:	0.0037	Unitless
Dilution Factor:	20	Unitless

4. Target TPH Ground Water Concentation (if adjusted)

If you adjusted the target TPH ground water concentration, enter adjusted value here:	800	ug/L

A2 Soil Cleanup Levels: Calculation and Summary of Results. Refer to WAC 173-340-720, 740, 745, 747, 750

Site Information

Date: 4/4/2007
Site Name: 210 McKenzie Ave
Sample Name: PCS-1
Measured Soil TPH Concentration, mg/kg **213.555**

1. Summary of Calculation Results

Exposure Pathway	Method/Goal	Protective Soil TPH Conc, mg/kg	With Measured Soil Conc		Does Measured Soil Conc Pass or Fail?
			RISK @	HI @	
Protection of Soil Direct Contact: Human Health	Method B	3,725	8.26E-10	5.73E-02	Pass
	Method C	73,329	1.11E-10	2.91E-03	Pass
Protection of Method B Ground Water Quality (Leaching)	Potable GW: Human Health Protection	262	1.96E-06	8.89E-01	Pass
	Target TPH GW Conc. @ 800 ug/L	236	NA	NA	Pass

Warning! Check to determine if a simplified or site-specific Terrestrial Ecological Evaluation may be required (Refer to WAC 173-340-7490 through ~7494).

2. Results for Protection of Soil Direct Contact Pathway: Human Health

	Method B: Unrestricted Land Use	Method C: Industrial Land Use
Protective Soil Concentration, TPH mg/kg	**3,724.94**	**73,329.49**
Most Stringent Criterion	**HI =1**	**HI =1**

Soil Criteria	Protective Soil Concentration @Method B				Protective Soil Concentration @Method C			
	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @
HI =1	YES	3.72E+03	1.44E-08	1.00E+00	YES	7.33E+04	3.80E-08	1.00E+00
Total Risk=1E-5	*NO*	2.59E+06	1.00E-05	6.94E+02	*NO*	1.93E+07	1.00E-05	2.63E+02
Risk of Benzene= 1E-6	*NO*	2.59E+05	1.00E-06	6.94E+01	NA			
Risk of cPAHs mixture= 1E-6	NA	NA	NA	NA				
EDB	NA	NA	NA	NA				
EDC	NA	NA	NA	NA				

3. Results for Protection of Ground Water Quality (Leaching Pathway)

3.1. Protection of Potable Ground Water Quality (Method B): Human Health Protection

Most Stringent Criterion	**HI=1**
Protective Ground Water Concentration, ug/L	**848.57**
Protective Soil Concentration, mg/kg	**261.86**

Ground Water Criteria	Protective Potable Ground Water Concentration @Method B				Protective Soil Conc, mg/kg
	Most Stringent?	TPH Conc, ug/L	RISK @	HI @	
HI=1	YES	8.49E+02	2.34E-06	1.00E+00	2.62E+02
Total Risk = 1E-5	*NO*	1.72E+03	1.00E-05	1.96E+00	5.42E+03
Total Risk = 1E-6	YES	4.47E+02	1.00E-06	5.45E-01	1.02E+02
Risk of cPAHs mixture= 1E-5	NA	NA	NA	NA	NA
Benzene MCL = 5 ug/L	*NO*	1.40E+03	6.29E-06	1.67E+00	1.14E+03
MTBE = 20 ug/L	*NO*	1.06E+03	3.40E-06	1.26E+00	4.20E+02

3.2 Protection of Ground Water Quality for TPH Ground Water Concentration previously adjusted and entered

Ground Water Criteria	Protective Ground Water Concentration			Protective Soil Conc, mg/kg
	TPH Conc, ug/L	Risk @	HI @	
Target TPH GW Conc = 800 ug/L	8.00E+02	2.14E-06	9.44E-01	**2.36E+02**

INITIAL SITE INVESTIGATION
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON

prepared for

Mr. Geoff Smyth
City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

June 25, 2007

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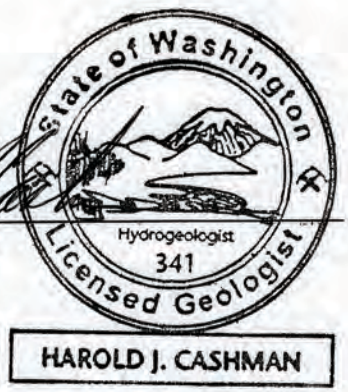

Harold Cashman
Project Manager

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QA/QC Reviewer

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1.0 INTRODUCTION

A limited subsurface site investigation was conducted at an industrial property located at 210 McKenzie Avenue in the Fairhaven Neighborhood of Bellingham, Washington. The site is owned by The City of Bellingham. The location of subject property is shown on Figure 1.

The site investigation was conducted to determine if the site was contaminated with compounds which could pose a risk to human health or the environment. A total of thirty trenches were excavated to characterize subsurface conditions at the site. Three samples were collected from the ground surface to evaluate suspected contaminated areas. Three water samples were collected from water infiltrating into the excavated trenches. It should be noted that the water samples were not collected from properly constructed groundwater wells and were collected for informational purposes only, and not to characterize onsite groundwater quality.

1.1 Limitations

No remedial action can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by WES is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on WES' field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the remedial action was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

The WES staff that conducted the investigation meet the requirements of environmental professional as outlined in ASTM E 1527-05. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

1.2 Indemnification

This report has been prepared for use by the City of Bellingham Public Works. WES prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent from WES. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

2.0 SITE DESCRIPTION

The subject property is located at the southwest corner of the intersection of 4th Street and McKenzie Avenue in Bellingham, Washington (Figure 1). The property is located in the southeast quarter of the southeast quarter of Section 2, Township 37 North, Range 2 East. The subject property covers approximately 3.3 acres. The property is zoned Industrial. Figure 2 shows the subject property outline.

2.1 Site Topography and Surrounding Area

The median elevation of the site is approximately 25 feet above mean sea level. The site topography is relatively level. The property is bordered by McKenzie Avenue on the north, by 4th Street on the east, and by the City of Bellingham's Post Point Waste Water Treatment facility on the west and south.

Based on historical information obtained by WES, including personal communication, geotechnical studies, and review of historical aerial photographs, it is suspected that a low area on the west side of the property was filled in the 1960s.

2.2 Site Geology

The bedrock under the site is the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

Field evidence indicates that the site is underlain by Bellingham Glaciomarine Drift of the Everson Interstade, which is covered in places by several feet of imported fill material or industrial debris.

The Bellingham Glaciomarine Drift consists of moderately sorted to unsorted diamicton with lenses and discontinuous beds of moderately to well-sorted gravel, sand, silt, and clay. Bedding is massive to poorly stratified. Color is blue-gray to olive-gray depending on oxidation state. Thickness ranges to as much as 90 meters. The unit is consistently firm to very hard,

depending on moisture content. The unit is predominantly dry to slightly moist. The unit acts as an aquitard, impeding vertical migration of contaminants.

2.3 Site Hydrogeology

Groundwater was encountered in several of the exploratory trench excavations at the site, predominantly on the west side of the property. It is possible that the water encountered is perched water trapped in the coarse fill material above the relatively impermeable diamicton.

There is some anecdotal evidence that groundwater at the site may be tidally influenced and it is possible that it may be interconnected with Bellingham Bay. Further investigation is required to confirm the type, quantity, and quality of groundwater at the site.

3.0 SITE HISTORY

WES conducted a Phase I Environmental Site Assessment (ESA) at the property in May, 2006. Historical research conducted as part of the Phase I ESA determined that the subject property had been developed as an industrial site since at least the early 1900's. Over time, the site was used as a brick manufacturing facility, a foundry, a chain manufacturing facility, several boat manufacturing facilities, a warehousing and general storage facility, as an auto repair shop, and as a machine shop. A summary of historical uses of the property is included below (WES, 2006).

Based on a review of Sanborn Fire Insurance maps:

The first time structures are shown on the subject property is in 1904. Three structures are shown as part of an industrial ironworks complex. It appears as if there may have been oil storage located at the corner of 3rd and McKenzie in 1904.

In 1913 the site was used as a brick manufacturer. There were still three structures located on the property at that time, and a large circular kiln was located behind one of the buildings.

The 1932 map showed just two structures on the property. The site was listed as a chain forging facility. The map indicates that oil was used as a fuel source in the facility.

The 1950 map shows a much larger Bellingham Chain and Forge complex. On the 1932 map, the complex consisted of two structures located between 2nd and 3rd streets. The 1950 map shows a complex of eight structures. Three circular fuel oil tanks are shown south of the office building in the northwest corner of the property.

The 1964 map shows the property with several vacant buildings and the chain manufacturer no longer in business. All buildings present in 1950 are still standing. The two eastern-most structures are now used as part of a boat manufacturing business. The three fuel oil tanks near the northwest corner of the parcel are still present.

Based on review of Polk City Directories at the Bellingham Public Library (WES, 2006), it was determined that from approximately 1962 to the present, the property has been used by

several boat manufacturing companies. In 1992, a company called Enerwaste International occupied one of the buildings at the site. Enerwaste built waste incinerators. In 1998, a refrigeration equipment sales company used one of the property structures. In 2003, a company called EcoWaste Solutions Group occupied one of the property buildings. It is unknown whether EcoWaste actually stored any type of waste at the site.

4.0 PREVIOUS INVESTIGATIONS

WES conducted a Phase I Environmental Site Assessment (ESA) at the property in May, 2006. The Phase I ESA reported that recognized environmental conditions were present at the subject property (WES, 2006). Two reports documenting previous subsurface work undertaken at the site were discovered as part of the Phase I ESA; a January, 1994 Limited Phase II ESA and a December, 1994 Final Report documenting the Thermal Desorption of petroleum contaminated soil (PCS). Both reports were prepared by W.D. Purnell & Associates of Bellingham, Washington.

The limited Phase II ESA documented the discovery of PCS at the location of the "underground storage tank (UST) pit" in November, 1993. The copy of the report WES obtained and reviewed as part of the Phase I ESA was incomplete. The location of the "UST pit" was not shown on a site map figure; however, a location was loosely referenced in the text that seemed to indicate the "pit" was near the "abandoned" chain manufacturer's office building, near the northwest corner of the property. Three tanks can be seen on historic aerial photographs and in historic Sanborn fire insurance maps at that location. The report stated that the location of the "UST pit" was, "excavated in fill material that includes clay, sandy gravel, bricks and metal debris". Although the reviewed report was incomplete, it did state that PCS was present at the subject property above the applicable Washington State Model Toxics Control Act (MTCA) Method A cleanup levels at that time and that the release was reported to the Washington State Department of Ecology (Ecology). The report also stated that PCBs and lead were discovered at the site below MTCA Method A cleanup action levels.

The December, 1994 report documenting the onsite thermal desorption of PCS at the property indicated that some of the soil had to be treated three times before finally passing the allowable MTCA concentrations. The report concluded by stating that treated soil was used to backfill the UST pit and PCS still remained in the sidewalls of the UST pit when backfilled.

A geotechnical report prepared for the City of Bellingham by CH^{2}M Hill in August, 1990 regarding the Post Point Waste Water Treatment Plant Upgrade was obtained by WES from the city after the completion of the Phase I ESA. A map was discovered in the report that shows the topography of the western side of the subject property prior to its being filled and leveled. The report describes several soil borings completed near the property boundaries, outside of the

subject property area. The boring logs indicate that the fill materials encountered in the "UST pit" were not encountered outside the property boundaries and that peat layers encountered in trench excavations at the property may be similar to those encountered in the geotechnical borings offsite.

A UST was removed from the property in April, 2007. WES conducted the UST Site Assessment at closure. The UST was discovered during onsite underground utility marking conducted at the property in February, 2007. WES prepared a UST Site Assessment report documenting the UST removal and collection of clean confirmation soil samples from the UST excavation. All confirmation samples collected from the UST excavation met the applicable MTCA Method A and B cleanup standards.

5.0 SITE ASSESSMENT AND CHARACTERIZATION

5.1 Surface and Subsurface Soil Investigation

Based upon the discovery of historical documentation suggesting that contamination remains in the soil at the site(during the Phase I ESA), an initial subsurface investigation was conducted at the subject property. Test trenches were excavated at the site in April 2007. The intent of the investigation was to determine the extent of the PCS remaining at the site remediated in 1994 and to determine if other areas of contamination exist at the site.

A total of 30 test trenches were excavated as part of the subsurface investigation. Excavated soil was field screened for organic vapors using a photoionization detector (PID) and screened for non-volatile petroleum products by conducting sheen tests. A total of 27 soil samples were collected based on field screening results from selected trenches and surface locations to help characterize and quantify site contamination. Twenty-four subsurface soil samples were collected from eighteen of the test trench excavations and three surface soil samples were collected from areas of visibly stained surface soil observed at the subject property. The test trench and surface sample locations are shown on Figure 2.

Soil samples were collected using stainless steel sampling equipment. All tools were washed using Alconox detergent and rinsed with distilled water in accordance with good industry practices. Soil samples collected for volatile organic compounds were collected via EPA Method 5035A. Samples were stored in an ice-packed cooler for shipment. A portion of each sample was placed in re-sealable bags in order to collect organic vapor headspace readings using the PID. Each soil sample was described in general accordance with ASTM D2487. Sample descriptions and sample depths are shown in Table 1. All sample locations were measured from known control points in order to record their location.

The soil samples were analyzed by CCI Analytical Laboratories in Everett, Washington. CCI is accredited by Ecology. Strict chain-of-custody and Quality Assurance/Quality Control protocols were followed for each sample. The QA/QC results were within acceptable limits, and there were no analytical issues that would compromise the validity of the data.

Soil samples collected were analyzed for gasoline range total petroleum hydrocarbons (TPH) using Method NWTPH-Gx and diesel range TPH using Method NWTPH-Dx, as well as benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using EPA Method 8021. Selected samples were also analyzed for priority pollutant metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc), volatile organic compounds (VOCs) using EPA Method 8260, and semi-volatile organic compounds (SVOCs) using EPA Method 8270.

Each trench was backfilled with material excavated from the trench.

5.2 Subsurface Water Investigation

Water was encountered in approximately half of the test trenches excavated at the property. The locations where water was encountered are shown on Figure 2. The majority of the wet trenches were located on the western edge of the site in an area with significant amounts of coarse fill material. In some cases, a large influx of water was observed to flood a trench when the excavator hit an area of coarse fill material, i.e. bricks and/or metal debris. Other times voids were observed in the fill material into which accumulated trench water flowed. Heavy oily sheens were noted on the water surface in several of the trenches. Three water samples were collected from three test trenches along the western edge of the property.

The trench water samples were collected using a bottle connected to an extendable pole. The water was collected in the jar and poured into the appropriate sample containers. The trench water samples were analyzed for gasoline range TPH using Method NWTPH-Gx and diesel range TPH using Method NWTPH-Dx, as well as benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using EPA Method 8021. The water samples were also analyzed for priority pollutant dissolved metals.

5.3 Investigation Findings

A summary of all test trenches is provided below. Excavation logs for each trench are provided in Appendix A. All test trench locations are shown on Figure 2. TPH and BTEX soil analytical data are summarized on Table 2, soil metals data are summarized on Table 3, soil VOC data are summarized on Table 4, soil SVOC data are summarized on Table 5, and the water analytical data are summarized on Table 6. Original soil laboratory analytical reports are

provided in Appendix B. Original water laboratory analytical reports are provided in Appendix C.

In order to determine if the soil and water sample concentrations pose a risk to human health or the environment, the soil and water concentrations were compared to screening levels which were prepared for the site. The screening levels for the site were established for unrestricted land use in accordance with WAC 173-340-740. Unrestricted land use soil cleanup levels are based upon a child exposure scenario. There are two options for establishing cleanup levels for unrestricted land use under MTCA- Method A and Method B. Method A cleanup levels are provided in WAC 173-340, Table 720-1 and Table 140-1. Screening levels for the site were developed using the Method A approach.

Trench #1:

- *Location:* The trench was excavated into the area where the three oil tanks were located, the assumed location of the former UST pit described in the Limited Phase II report (Purnell, 1994).
- *Length/Width/Depth/Orientation:* 32 ft x 4 ft x 6 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 4 ft below ground surface (bgs).
- *Observations:* Globules of free oil were observed in the excavation spoils that created heavy sheens on water escaping from the temporary stockpile. Woody debris removed from the trench appeared to have an oily surface.
- *Samples Collected:* One soil sample was collected from approximately 6 feet bgs near the center of the trench. One water sample was collected from the trench water.

Trench #2:

- *Location:* The trench was excavated west of the former UST pit.
- *Length/Width/Depth/Orientation:* 15 ft x 4 ft x 11 ft, oriented east-west.
- *Depth of Water:* Water was encountered at 5 ft bgs entering from east side

- *Observations:* The west end of the trench was excavated to approximately 10 ft bgs into dry native material. Water began entering the trench from the east side when the excavator bucket broke into a layer of coarse fill material. Bricks were encountered at 1-2 ft bgs starting in the middle of the trench. A layer of black asphalt like material was observed in conjunction with the brick layer. A one foot thick layer of crushed glass was observed at 4 feet bgs on the east side of the trench.
- *Samples Collected:* Two soil samples were collected from Trench #2. One sample of the black asphalt like material was collected from 2.5 ft bgs near the east end of the trench and one sample was collected from native soil at 11 ft bgs on the west end of the trench.

Trench #3:

- *Location:* The trench was excavated from the south end of the former office building foundation to the north end of the UST pit area.
- *Length/Width/Depth/Orientation:* 15 ft x 4 ft x 6 ft, oriented north-south
- *Depth of Water:* Water was encountered at 4 feet bgs at south end of trench
- *Observations:* Minor brick material encountered at 1 to 3 feet bgs. Heavy sheen noted on water in south end of trench. A highly contaminated fine sand layer was sampled in this trench. The contaminated sand oozed free oil if disturbed.
- *Samples Collected:* Two soil samples were collected from Trench #3. The highly contaminated sample was collected from 5 feet bgs and the other was collected from a point one foot above the contamination. The second sample consisted of ash and metal shavings.

Trench #4:

- *Location:* The trench was excavated in the northwest corner of the property, starting at the southwest corner of the former office building, 7 ft east of the west fence line.
- *Length/Width/Depth/Orientation:* 30 ft x 4 ft x 7 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 4 feet bgs.

- *Observations:* Brick fill material was encountered at approximately the middle of the trench. The fill was observed on the east side only. A slight sheen was noted on the trench water. At the bottom of the trench an organic rich (peat) fine sand and silt layer was encountered and assumed to be native material.
- *Samples Collected:* Two soil samples and one water sample were collected from Trench #4. A soil sample was collected from approximately 4 ft bgs on the south end of the excavation and one was collected from 6 ft bgs on the north end.

Trench #5:

- *Location:* The trench was excavated south of the UST pit.
- *Length/Width/Depth/Orientation:* 38 ft x 4 ft x 8.5 ft, oriented east-west.
- *Depth of Water:* Water was encountered at 5 feet bgs.
- *Observations:* A slab of steel reinforced concrete was encountered at the ground surface. Fill material was discovered directly below the concrete slab. Globules of free oil were observed on the surface of the trench water creating heavy sheens. Brick fill material was encountered to at least 8 feet bgs. Native silty fine sand was encountered at 8 feet bgs on the west side of the trench. Trench was dry to near depth on the west end and filled with water as a coarse fill layer was breached with the excavator.
- *Samples Collected:* One soil sample was collected from approximately 5 feet bgs near the center of the trench on the south sidewall. The sample was collected from an area of rusty colored material near where heavy flow of water entered the trench.

Trench #6:

- *Location:* The trench was excavated south of Trench #5.
- *Length/Width/Depth/Orientation:* 47 ft x 4 ft x 8.5 ft, oriented east-west, 8 ft off western fence line.
- *Depth of Water:* Water was encountered at 5 feet bgs.

- *Observations:* A slab of steel reinforced concrete was encountered at the ground surface. Fill material was discovered directly below the concrete slab beginning approximately 25 feet east of western fence line. Western end of trench had little fill material and a silty fine sand layer was encountered at 8 feet bgs. Coarse sand-sized metal fragments were encountered associated with the brick fill material.
- *Samples Collected:* Two soil samples were collected from Trench #6. One was obtained approximately 3 feet bgs near the center of the trench in the metal fragments and one from 8 feet bgs in the native silty fine sand.

Trench #7:

- *Location:* The trench was excavated south of Trench #6.
- *Length/Width/Depth/Orientation:* 52 ft x 4 ft x 6 ft, oriented east-west, 8 ft off western fence line.
- *Depth of Water:* Water was encountered at 5 feet bgs on east end of trench but was encountered at 6.5 feet bgs on the west end.
- *Observations:* The steel reinforced concrete slab was encountered approximately 35 feet off the western fence line. Observed asphalt and metal debris at 3 feet bgs on western end of trench. A black oily substance was associated with the brick fill material and metal shavings. Brick fill first encountered at 25 feet from the west fence line. Water entered from coarse fill material and flooded west end of trench. Water settled at 5 feet bgs. Moderate sheen observed on water in east end of trench. Large chain links were encountered near the eastern end of the trench. WES attempted to dig to native material on east end of trench but could not get a good sample due to excessive water and trench sidewall sloughing.
- *Samples Collected:* One soil sample was collected from Trench #7. The sample was collected from 6 ft bgs near the center of the trench. The sample was collected to characterize the metal fragments and black oily material encountered with the brick fill.

Trench #8:

- *Location:* The trench was excavated near the southwest corner of the former chain and forge building, southeast of Trench #7.
- *Length/Width/Depth/Orientation:* 10 ft x 4 ft x 8.5 ft, oriented east-west.
- *Depth of Water:* Water was encountered at 7 feet bgs.
- *Observations:* The steel reinforced concrete slab was encountered under a small depth of pit run fill. Below the slab was a 3 foot thick black layer of metal shavings and other debris. The black layer sat on top of a 1 foot thick red brick layer. Below the red bricks was what appeared to be a firm native clayey silt layer that sat on top of an organic-rich silty fine sand.
- *Samples Collected:* One soil sample was collected from approximately 8.5 feet bgs in the organic-rich silty fine sand.

Trench #9:

- *Location:* The trench was excavated in the boat storage yard approximately 190 feet south of the northwest corner of the property, 24 feet east of the west fence line.
- *Length/Width/Depth/Orientation:* 7 ft x 4 ft x 7.5 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 4 feet bgs.
- *Observations:* Encountered approximately 2 ft of gravel and silty clay fill at surface above a 1 foot thick layer of weathered concrete material and a 2 foot thick layer of woody and metal debris. A hard, dry, gray layer of clayey silt with gravel was encountered at 7 ft bgs and is assumed to be native.
- *Samples Collected:* One soil sample was collected from 4 feet bgs.

Trench #10:

- *Location:* The trench was excavated 235 feet south of the north fence line and 14 feet east of the west fence line, southwest of Trench #9.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 9 ft, oriented north-south.

- *Depth of Water:* Water was encountered at 3 bgs.
- *Observations:* At 1 foot bgs on the southeast side of the trench, a contaminated layer was encountered with a heavy sheen and PID readings up to 500 parts per million (ppm). An excessive amount of fill debris was encountered to approximately 9 feet bgs. Debris included old bottles, fiber glass sheeting, woody material, and other trash. Water filled trench to 3 ft bgs. A moderate sheen was observed on the water surface. A peat layer was encountered at 9 to 9.5 feet bgs (assumed native swamp deposit).
- *Samples Collected:* Two soil samples were collected from Trench #10. One sample was collected from the contaminated soil at 1 foot bgs, and the other was collected from approximately 7 feet bgs in the center of the excavation.

Trench #11:

- *Location:* The trench was excavated 92 feet east and 35 feet north of the southwest corner of the property.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 8 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 4.5 feet bgs.
- *Observations:* Encountered black stained layer with metal wire from 3 to 5 feet bgs. Tan silty sand was encountered below the stained soil to the depth of the trench.
- *Samples Collected:* One soil sample was collected from approximately 8 feet bgs near the center of the trench.

Trench #12:

- *Location:* The trench was excavated 147 feet east and 43 feet north of the southwest corner of the property.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 10 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.

- *Observations:* The top 2 feet of the excavation was fill material consisting of coarse sandy gravel and miscellaneous fiber glass boat mold scrap. Below 2 to 2.5 feet bgs, dry native tan clayey silt with gravel was encountered.
- *Samples Collected:* One soil sample was collected from 1 foot bgs.

Trench #13:

- *Location:* The trench was excavated 174 feet east and 75 feet north of the southwest corner of the property.
- *Length/Width/Depth/Orientation:* 11 ft x 4 ft x 6 ft, oriented north-south
- *Depth of Water:* Water was not encountered.
- *Observations:* One foot of sandy gravel fill was encountered above native, hard, dry, silty fine sand to clayey silt with gravel.
- *Samples Collected:* No samples were collected.

Trench #14:

- *Location:* The trench was excavated approximately 85 feet south of John's Repair Shop, at north end of the former chain test structure.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 7.5 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* Two feet of sandy gravel fill was encountered above native, hard, dry, silty fine sand to clayey silt with gravel.
- *Samples Collected:* One soil sample was collected from 1 foot bgs in material that had a very slight sheen and petroleum odor, but no PID reading.

Trench #15:

- *Location:* The trench was excavated 200 feet south and 87 feet east of the northwest property corner.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 8.5 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 6 feet bgs.
- *Observations:* Sandy gravel fill was encountered to approximately 6 feet bgs where a 1 foot thick layer of red bricks was observed. Water began flowing

into the excavation from the brick layer. A fine sand layer was encountered at approximately 7 to 8 feet bgs.

- *Samples Collected:* One soil sample was collected from approximately 8 feet bgs in the center of the bottom of the trench.

Trench #16:

- *Location:* The trench was excavated near the top center of the southern third of the concrete footprint of the former chain and forge building, southeast of the UST pit.
- *Length/Width/Depth/Orientation:* 12 ft x 6 ft x 8.5 ft, oriented east-west.
- *Depth of Water:* Water was encountered at 7 feet bgs.
- *Observations:* A one foot thick slab of concrete was encountered below a metal plate in the footprint of the former forge building. A 3 to 4 foot thick layer of black stained broken brick and metal debris was encountered just below the building floor slab. Several abandoned water and electrical conduit pipes were encountered within 2 feet of the surface, running in a north-south orientation. Material appeared to be native diamicton from 4 feet to the depth of the trench. No sheen was observed on the trench water.
- *Samples Collected:* No samples were collected.

Trench #17:

- *Location:* The trench was excavated east of the UST pit at the western edge of the concrete footprint of the former chain and forge building.
- *Length/Width/Depth/Orientation:* 11 ft x 5 ft x 8 ft, oriented east-west.
- *Depth of Water:* Water was encountered at 7 feet bgs and filled the excavation to a depth of 6 feet.
- *Observations:* An 8 inch thick steel reinforced concrete slab covered approximately 3 feet of black stained brick and metal debris. Under the bricks and metal was approximately 4 feet of coarse sandy gravel fill. An abandoned 1.5 foot diameter metal water pipe was encountered at 6.5 to 7 feet bgs. Water flowed into the trench from the broken pipe and

filled the excavation to 6 feet bgs. Native silty fine sand was encountered at 7.5 feet bgs, on the floor of the trench.

- *Samples Collected:* No samples were collected.

Trench #18:

- *Location:* The trench was excavated 225 feet south and 28 feet east of northwest property corner, west of Trench #10.
- *Length/Width/Depth/Orientation:* 10 ft x 5 ft x 10 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 4 feet bgs.
- *Observations:* The trench was excavated to gather more information about the extent of contamination and fill near Trench #10. Trash fill similar to Trench #10 was encountered at 2 to 2.5 feet bgs. Water was observed to have a heavy sheen. Voids in the fill material were observed to fill with water as it entered the trench.
- *Samples Collected:* No samples were collected.

Trench #19:

- *Location:* The trench was excavated 225 feet south and 55 feet east of northwest property corner, west of Trench #10 and Trench #18.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 6.5 ft, oriented north-south.
- *Depth of Water:* Water was encountered at 5 feet bgs.
- *Observations:* Encountered approximately 5.5 ft of sandy gravel above trash fill material similar to Trench #10 and Trench #18. The trench water was observed with a heavy sheen.
- *Samples Collected:* One water sample was collected.

Trench #20:

- *Location:* The trench was excavated east of John's Repair Shop, approximately 20 feet north and 5 feet west of where WES documented the removal of an abandoned UST in April, 2007.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 8.5 ft, oriented north-south.

- *Depth of Water:* Water was not encountered.
- *Observations:* Material below concrete slab appeared to be native diamicton. The trench was excavated to investigate the possibility of another UST evidenced by a concrete filled pipe to the east of the trench. No evidence of a UST was encountered.
- *Samples Collected:* No samples were collected.

Trench #21:

- *Location:* The trench was excavated approximately 40 feet south of the old concrete loading ramp, 37 feet east of the center fence line.
- *Length/Width/Depth/Orientation:* 10 ft x 4 ft x 7.5 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated into dry native fine sandy silt.
- *Samples Collected:* No samples were collected.

Trench #22:

- *Location:* The trench was excavated approximately 70 feet south of the old concrete loading ramp, 47 feet east of the center fence line.
- *Length/Width/Depth/Orientation:* 11 ft x 4 ft x 7 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated into dry native fine sandy silt.
- *Samples Collected:* No samples were collected.

Trench #23:

- *Location:* The trench was excavated approximately 28 feet north of the southern fence line and 30 feet east of center fence line.
- *Length/Width/Depth/Orientation:* 10 ft x 4 ft x 7.5 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated into dry native fine sandy silt. The material in this trench had a finer texture than the material observed

in Trench #21 and Trench #22. A small amount of material at the surface of the trench appeared to exhibit a very slight sheen.

- *Samples Collected:* One sample was collected from material between 0 and 1 foot that exhibited a very slight sheen.

Trench #24:

- *Location:* The trench was excavated approximately 48 feet east of Trench #23 and 35 feet north of the southern fence line feet east of center fence line.
- *Length/Width/Depth/Orientation:* 11 ft x 4 ft x 7 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated into dry native fine sandy silt and silty sands.
- *Samples Collected:* No samples were collected.

Trench #25:

- *Location:* The trench was excavated approximately 60 feet north and 30 feet west of the northeast fence corner of the Post Point Waste Water Treatment Plant. The northeast fence corner of the Post Point Waste Water Treatment Plant is approximately 125 feet west of the southeast property corner.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 4 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated into saturated surface soil (puddle). Material became dry within 1 foot bgs. Trench was excavated into dry native fine sands and silts.
- *Samples Collected:* No samples were collected.

Trench #26:

- *Location:* The trench was excavated 62 feet south of the southwest corner of the large, eastern-most warehouse building.
- *Length/Width/Depth/Orientation:* 10 ft x 7 ft x 8 ft, oriented north-south.

- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated in an area where sandblasting grit was observed. The location of the trench was at the end of a small drainage ditch which catches water flowing off the northern property's paved surfaces. The trench was excavated into dry native clayey silt and silty clay.
- *Samples Collected:* One surficial sample was collected from the sandblasting grit that had accumulated at the terminus of the drainage ditch.

Trench #27:

- *Location:* The trench was excavated 60 feet south and 15 feet east of the southeast corner of the large warehouse building.
- *Length/Width/Depth/Orientation:* 13 ft x 4 ft x 6.5 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* The surface gravel was approximately 1 to 1.5 feet thick and some field screened samples exhibited a very slight sheen. The material below the surface gravel was dry native fine sandy silt with minor gravel.
- *Samples Collected:* No samples were collected.

Trench #28:

- *Location:* The trench was excavated along the eastern property boundary, approximately 46 feet east of the southeast corner of the large warehouse building.
- *Length/Width/Depth/Orientation:* 10 ft x 4 ft x 80 ft, oriented east-west.
- *Depth of Water:* Water was not encountered.
- *Observations:* Native brown sandy silt was first encountered in the test trench at approximately 2.5 feet bgs. Above the native diamicton, approximately 2 feet of crushed rock and gravel, capped by a layer of asphalt, was observed. Small lenses of moist gray silt were noted at approximately 5 feet bgs and below. The trench soils were observed to be more moist than the previous two trenches.

- *Samples Collected:* No samples were collected.

Trench #29:

- *Location:* The trench was excavated near the northeast corner of the property, approximately 58 feet east of the large warehouse building and 10 feet south of the northern fence line.
- *Length/Width/Depth/Orientation:* 46 ft x 4 ft x 12 ft, oriented north-south. The trench was excavated to approximately 8 feet bgs on its north end and 12 feet bgs on its south end.
- *Depth of Water:* Water was encountered at 7 feet bgs.
- *Observations:* Eight inches of pit run gravel was encountered at the surface followed by saturated gray clayey fill material beginning at 1 foot bgs that appeared to be reworked diamicton. The clayey fill was encountered to a depth of 12 feet. The clayey fill exhibited a slight sheen but did not register an organic vapor reading on the PID. Large woody debris was encountered at approximately 6 feet bgs throughout the length of the trench. A dark brown silty sand layer with abundant rootlets and organic material was encountered at approximately 8 feet bgs that may indicate that this section of the property was filled and graded. Trench #29 was significantly wetter than other trenches excavated on the east side of the property. Approximately 6 feet east of Trench #29 a French drain was discovered that captures water from the cut-bank along eastern property edge. The French drain system appeared to channel water to the northeast property corner. The trench walls calved significantly as the trench was deepened as a result of the moisture content of the soil in the area.
- *Samples Collected:* Two soil samples were collected from Trench #29. One was collected from 2 feet bgs on the north end of the trench and one from 8 feet bgs on the south end.

Trench #30:

- *Location:* The trench was excavated beneath the western end of the concrete loading ramp. The loading ramp was demolished by the city prior to excavating the test trench.
- *Length/Width/Depth/Orientation:* 12 ft x 4 ft x 8 ft, oriented north-south.
- *Depth of Water:* Water was not encountered.
- *Observations:* The trench was excavated to evaluate the soil located below the demolished concrete loading ramp. Several buried drums of dried resin and other trash were encountered as the loading ramp was destroyed. The drums and trash were used as fill in the core of the ramp. Native sandy silt was encountered directly below the base of the ramp. No evidence of contamination was observed.
- *Samples Collected:* One soil sample was collected from 1 foot bgs to evaluate the condition of the soil beneath the loading ramp.

6.0 RESULTS

The subsurface investigation findings indicate that the western portion of the subject property is contaminated with petroleum compounds and metals. Sometime in the past, the western portion of the property appears to have been filled with waste material associated with past uses of the property (including bricks and metal debris) and leveled for use as a boat storage area. Oily sheens were observed on the perched water in most of the test trenches excavated on the western edge of the property. Several surface stains were observed in locations where individuals worked on stored boats and may have dumped waste solvents, oil, or fuel on the ground.

Gasoline, diesel, and lube-oil range TPH and BTEX constituents were detected in soil at concentrations which exceeded the MTCA Method A target cleanup levels in five trenches excavated in the western portion of the property, as shown on Figure 3. Two surface samples also contained diesel and lube-oil range TPH at concentrations which exceeded the MTCA Method A target cleanup levels. The TPH and BTEX data are summarized in Table 2.

Cadmium was detected in soil at a concentration which exceeded the MTCA Method A target cleanup level in seven of the nine trenches sampled for metals, as shown on Figure 4. The soil cadmium data are summarized in Table 3. Cadmium contamination affects a wide area of the subject property. Cadmium was detected in approximately 80% of the soil samples run for metals analysis and it was detected in 100% of the water samples analyzed.

Lead was detected in soil at a concentration which exceeded the MTCA Method A target cleanup level in two of the nine trenches sampled for metals, as shown on Figure 5. The lead contamination appears to be located in the northwest corner of the property. The lead data are summarized in Table 3.

The data indicate that the property is not significantly impacted by volatile organic compounds. Methylene chloride was detected above the MTCA Method A target cleanup level in Trench #2. The VOC data are summarized in Table 4.

Carcinogenic poly-cyclic aromatic hydrocarbons (cPAHs) were detected at concentrations which exceeded the MTCA Method A target cleanup levels in five of the six trenches sampled for semi-volatile organic compounds, as shown on Figure 6. Carcinogenic PAHs were also detected one surface soil sample. The soil cPAH data are summarized in Table 5.

Naphthalenes were detected at concentrations which exceeded the MTCA Method A target cleanup level in one of the six trenches sampled for semi-volatile organic compounds, as shown on Figure 7. The soil naphthalene data are summarized in Table 5.

Perched water was observed flowing into the trenches excavated at the western edge of the property only. Those trenches were excavated in imported fill material/debris. Groundwater was not encountered in the hard dry clayey silt (diamicton) found in the central and eastern portions of the property. One anomalous observation was the water encountered in Trench #29 excavated near the northeast corner of the property. The diamicton appeared to have been excavated at that location sometime in the past. Woody debris encountered at 6-12 feet bgs indicated the area was disturbed/filled in the past.

Observations made during the subsurface investigation indicate that the perched may be impacted with petroleum products in the western portion of the property. Water in Trenches #3, #5, #7, #10, and #18 exhibited a petroleum sheen and free oil was observed on the water in several of those trenches. Water samples were not collected from those trenches. References to sheen observations are included in the Trench logs (Appendix A).

Trench water samples were collected from three trenches excavated in the western portion of the property. Water in Trench #1 exhibited an oily sheen. A water sample was collected from Trench #1 and analyzed for TPH, BTEX, and metals. Diesel range TPH was detected at a concentration below the MTCA Method A target cleanup level. Cadmium was detected at a concentration above the MTCA Method A target cleanup level. Beryllium, copper, and zinc were also detected in the sample. The water data are summarized in Table 6.

Water in Trench #4 exhibited a slight sheen, and a water sample was collected. The sample contained cadmium at a concentration above the MTCA Method A target cleanup level, as shown in Table 6. Antimony, beryllium, copper, and zinc were also detected in the sample.

Water in Trench #19 exhibited a heavy sheen, and a water sample was collected. Diesel range TPH was detected at a concentration below the MTCA Method A target cleanup level. Cadmium was detected at a concentration above the MTCA Method A target cleanup level. Antimony, beryllium, copper, silver and zinc were also detected in water from Trench #19.

7.0 CONCLUSIONS

The limited site investigation performed at the property located at 210 McKenzie Avenue in Bellingham, Washington has discovered evidence of petroleum product and metals contamination. The analytical data confirm that a release to soil has occurred at the site. The trench water samples indicate that it is possible that petroleum compounds and metals have impacted perched water at the site.

The subsurface investigation revealed that the western portion of the property consists of imported fill material and debris. Water appears to be perched in the fill/debris material. The majority of the remainder of the property appears to be underlain by relatively dry native clayey silt.

WES recommends that the site be reported to the Washington Department of Ecology in accordance with the reporting requirements of WAC 173-340-300. We recommend that a groundwater investigation be conducted at the property to assess the type, quantity, and quality of the groundwater at the site.

8.0 REFERENCES

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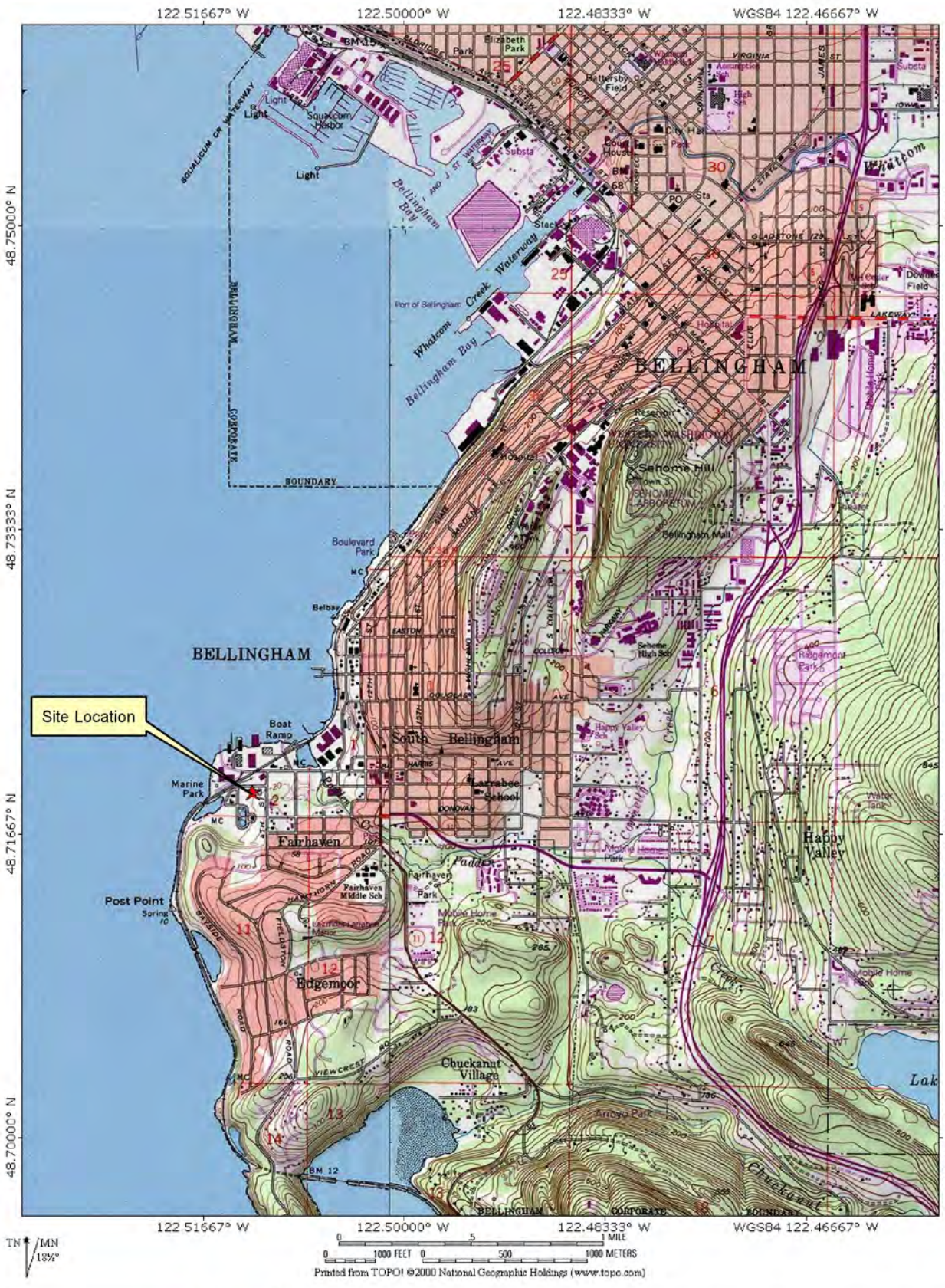
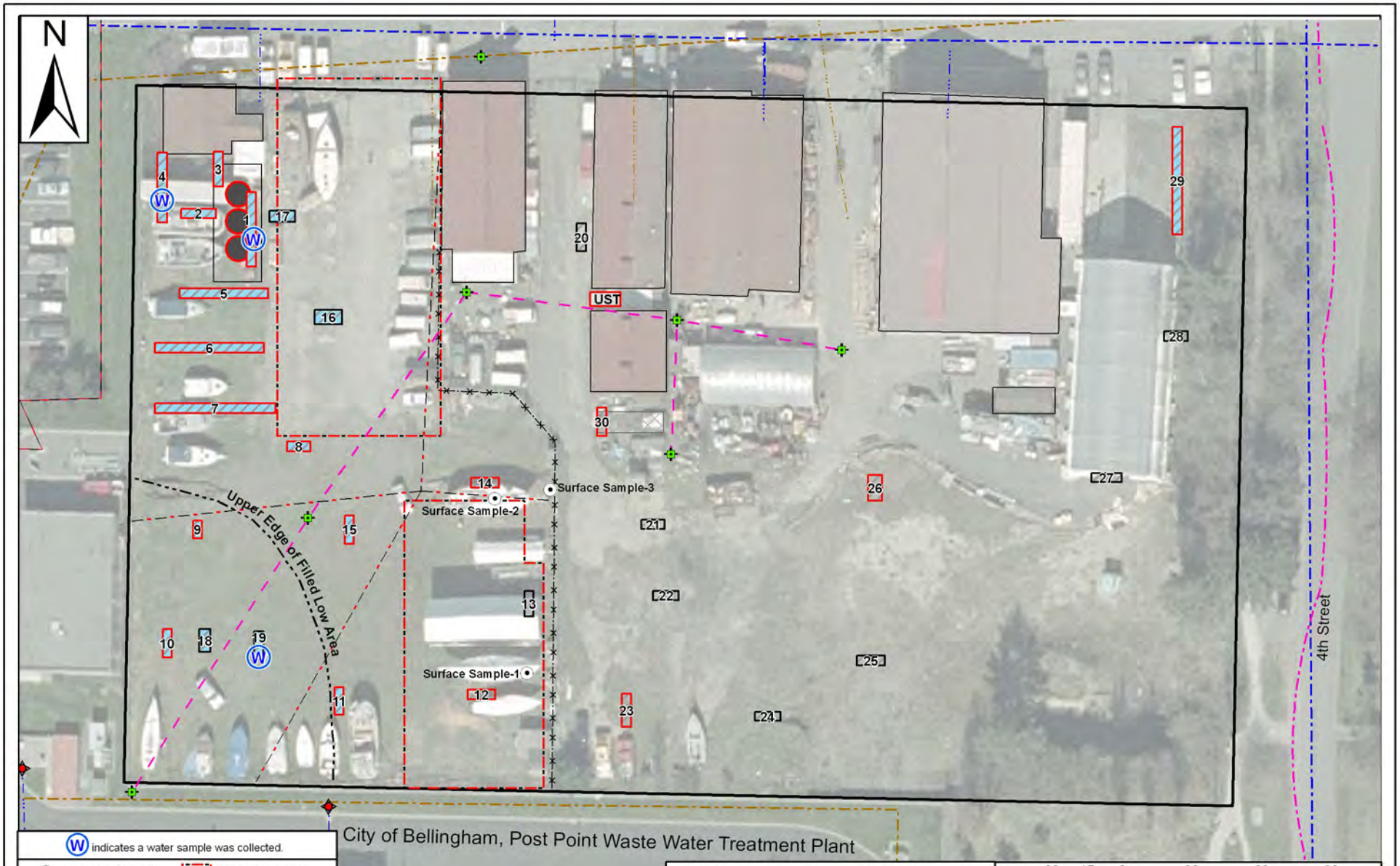
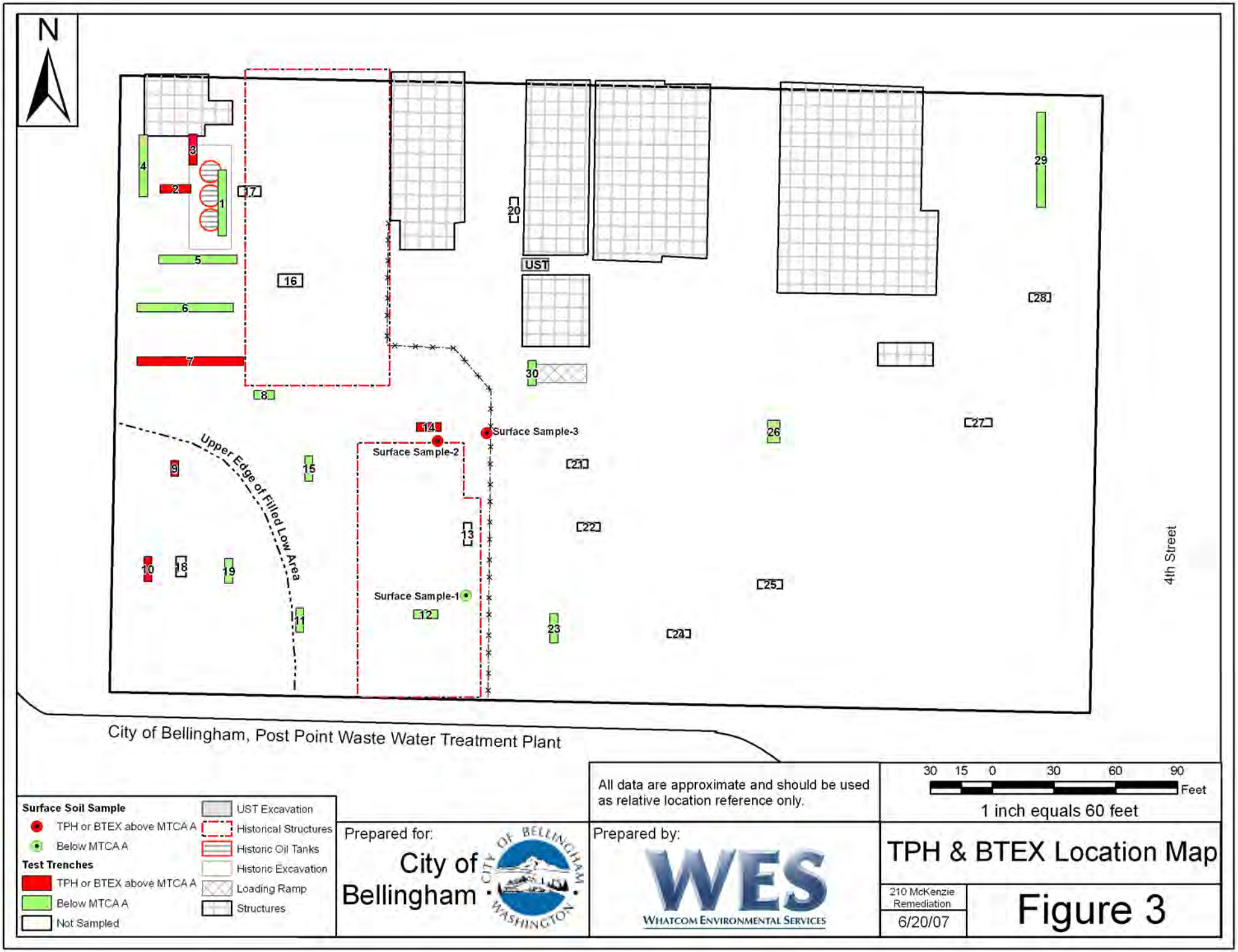
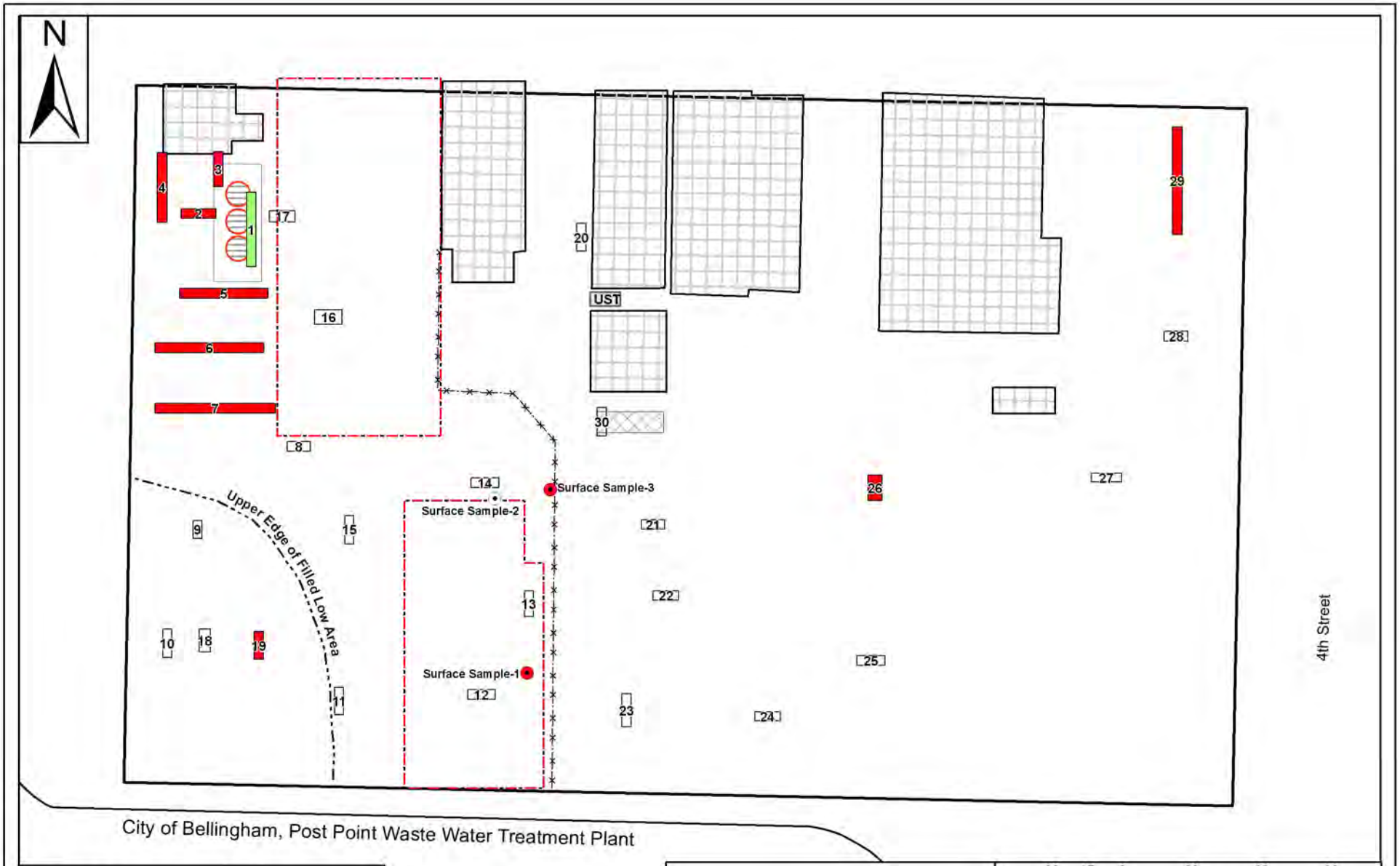


Prepared for:	Prepared by:	
City of Bellingham	WES Whatcom Environmental Services	Site Location Map
		McKenzie UST 4/4/07 — Figure 1


N
Surface Sample-1
Surface Sample-2
Surface Sample-3
UST
Upper Edge of Filled Low Area
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
W indicates a water sample was collected.
Surface Soil Sample
Test Trenches
Samples not collected
Samples collected
Water Encountered
UST Excavation
Fence
Property Electrical Lines
Catch Basin
Property Storm Sewer
Historical Structures
Historic Oil Tanks
Hydrant
Fiber Optic
Sanitary Sewer Main
Sanitary Sewer Service
Storm Sewer Service
Storm Sewer Main
Water Main Line
Water Service Line
All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
WES
Whatcom Environmental Services
Test Trench and Soil Sample Location Map
210 McKenzie Remediation
6/20/07
Figure 2


N
UST
Surface Sample-3
Surface Sample-2
Surface Sample-1
Upper Edge of Filled Low Area
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
Surface Soil Sample
TPH or BTEX above MTCA A
Below MTCA A
Test Trenches
TPH or BTEX above MTCA A
Below MTCA A
Not Sampled
UST Excavation
Historical Structures
Historic Oil Tanks
Historic Excavation
Loading Ramp
Structures
All data are approximate and should be used as relative location reference only.
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
WES
Whatcom Environmental Services
TPH & BTEX Location Map
210 McKenzie Remediation
6/20/07
Figure 3


N
1
2
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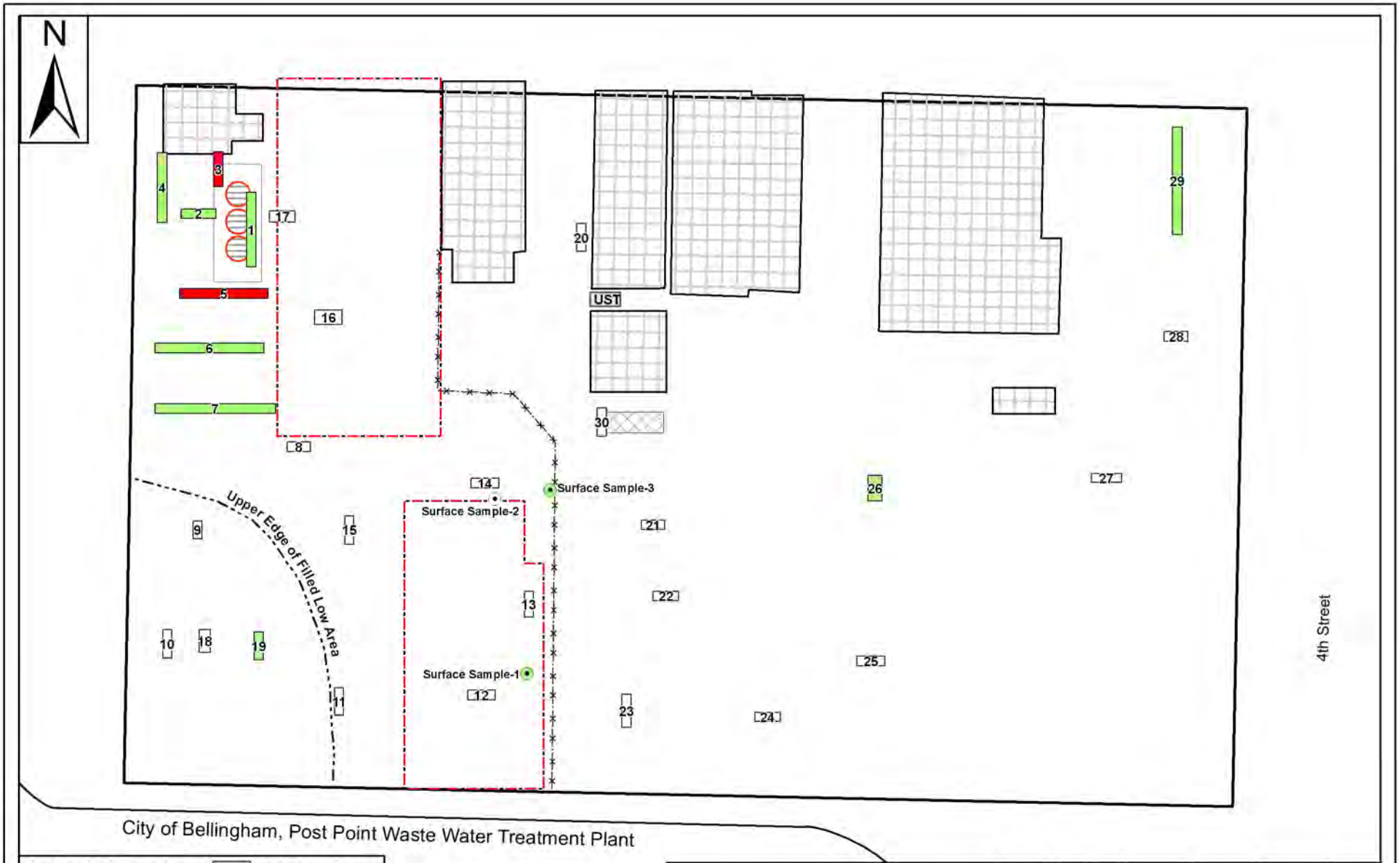
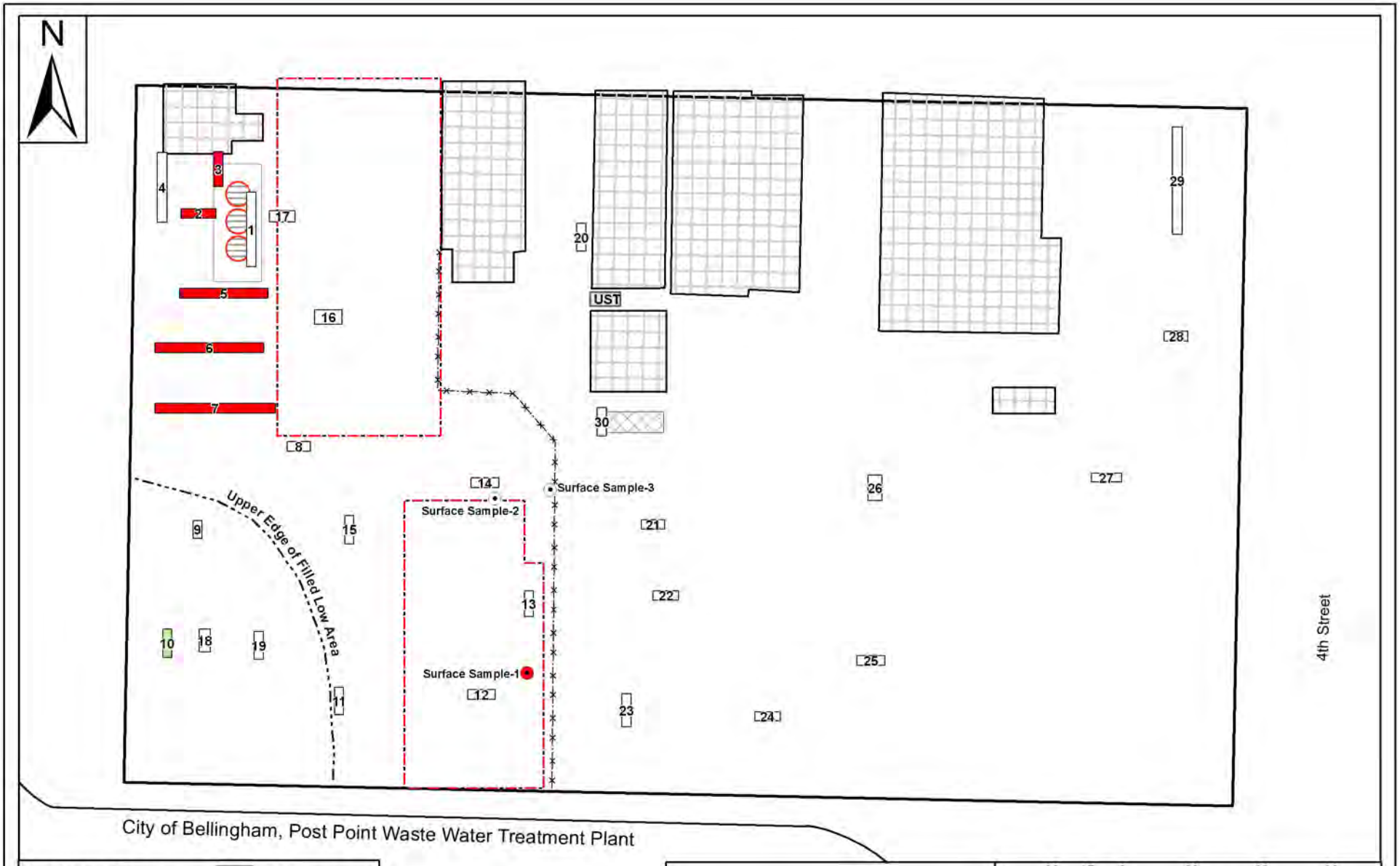
21
22
23
24
25
26
27
28
29
30
UST
Surface Sample-1
Surface Sample-2
Surface Sample-3
Upper Edge of Filled Low Area
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
Surface Soil Sample
Cadmium Above MTCA A
Below MTCA A
Not Analyzed for Cadmium
Test Trenches
Cadmium above MTCA A
Below MTCA A
Not Analyzed for Cadmium
UST Excavation
Historical Structures
Historic Oil Tanks
Historic Excavation
Loading Ramp
Structures
All data are approximate and should be used as relative location reference only.
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
WES
Whatcom Environmental Services
Cadmium Location Map
210 McKenzie Remediation
6/20/07
Figure 4


N
UST
Surface Sample-3
Surface Sample-2
Surface Sample-1
Upper Edge of Filled Low Area
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
Surface Soil Sample
Lead Above MTCA A
Below MTCA A
Not Analyzed for Lead
Test Trenches
Lead above MTCA A
Below MTCA A
Not Analyzed for Lead
UST Excavation
Historical Structures
Historic Oil Tanks
Historic Excavation
Loading Ramp
Structures
All data are approximate and should be used as relative location reference only.
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
WES
Whatcom Environmental Services
Lead Location Map
210 McKenzie Remediation
6/20/07
Figure 5


N
UST
Surface Sample-3
Surface Sample-2
Surface Sample-1
Upper Edge of Filled Low Area
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
Surface Soil Sample
cPAHs above MTCA A
Below MTCA A
Not Analyzed for cPAHs
Test Trenches
cPAHs above MTCA A
Below MTCA A
Not Analyzed for cPAHs
UST Excavation
Historical Structures
Historic Oil Tanks
Historic Excavation
Loading Ramp
Structures
All data are approximate and should be used as relative location reference only.
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
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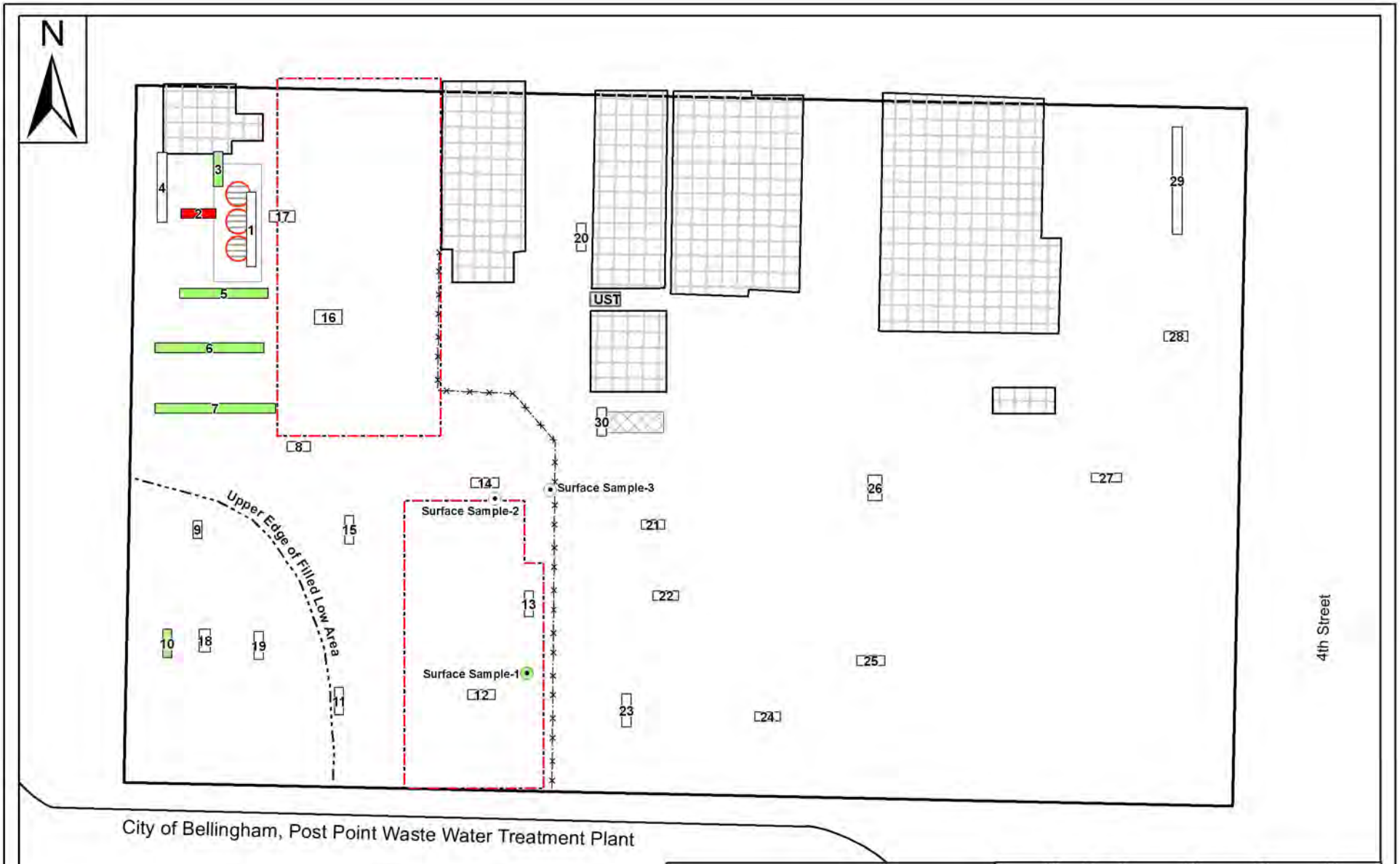
Whatcom Environmental Services
cPAH Location Map
210 McKenzie Remediation
6/20/07
Figure 6



Surface Soil Sample
- Naphthalenes above MTCA A
- Below MTCA A
- Not Analyzed for Naphthalenes

Test Trenches
- Naphthalenes above MTCA A
- Below MTCA A
- Not Analyzed for Naphthalenes

- UST Excavation
- Historical Structures
- Historic Oil Tanks
- Historic Excavation
- Loading Ramp
- Structures

All data are approximate and should be used as relative location reference only.

30 15 0 30 60 90 Feet

1 inch equals 60 feet

Prepared for: City of Bellingham

Prepared by: WES Whatcom Environmental Services

Naphthalenes Location Map

210 McKenzie Remediation

6/20/07

Figure 7

Table 1. Soil Sample Descriptions - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Depth (ft bgs)	Location and Description	PID	Sheen Test*
Trench 1 - 6 ft	4/17/07	6.0	Center of Trench 1 Sandy gravel (pit run), brown, loose, wet	0.0	MS (weathered)
Trench 2 - 2.5 ft	4/17/07	2.5	Black layer Fine sand, black, soft, moist, asphalt-like	0.0	HS
Trench 2 - 11 ft	4/17/07	11.0	From what appears to be native material (beach deposit?) Fine sand, greenish-gray, firm, wet	0.0	VSS
Trench 3 - 4 ft	4/17/07	4.0	Collected from visible contamination Medium to coarse sand, black, minor gravel, loose, moist	0.0	NS
Trench 3 - 5 ft	4/17/07	5.0	North end of Trench 3 Silty fine sand, brown, firm, wet	32	HS
Trench 4 - 4.5 ft - S	4/18/07	4.5	58 ft from north end of Trench 4, 11 ft off fence line Clayey silt, moderate gravel (up to 1"), brown, sticky, wet	0.0	VSS
Trench 4 - 6 ft - N	4/18/07	6.0	3 ft south of north end of trench, below water depth Silty gravel, black, abundant organics (woody debris), sticky, wet	0.0	SS
Trench 5 - 5 ft	4/18/07	5.0	Center of Trench 5, south sidewall below rusty material, near where good flow of oily water entered trench Sandy silt, black, moderate gravel, abundant organics (burned wood), plastic, wet	0.0	NS
Trench 6 - 3 ft	4/18/07	6.0	Beneath old (buried) concrete slab near center of Trench 6 Medium to coarse sand sized metal fragments, black, loose, dry	0.0	NS
Trench 6 - 8 ft	4/18/07	8.0	Presumed native floor material Fine sand, greenish-gray, firm, wet	0.0	NS
Trench 7 - 6 ft	4/19/07	6.0	Collected from visible contamination Medium to coarse sand sized metal fragments (up to 0.25"), black, loose, dry	0.0	MS
Trench 8 - 8.5 ft	4/19/07	8.5	Below black soil/brick from Trench 8 Silty fine sand, brown, abundant organics, sticky, wet	0.0	NS
Trench 9 - 4 ft	4/19/07	4.0	From organic layer in trench sidewall Medium sand with gravel, black, abundant organics, hard, dry	0.0	NS
Trench 10 - 1 ft	4/19/07	1.0	East sidewall of Trench 10 Coarse sandy gravel, brown, loose, moist	514	NS
Trench 10 - 7 ft	4/19/07	7.0	Collected to determine contamination	13	MS

Table 1. Soil Sample Descriptions - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Depth (ft bgs)	Location and Description	PID	Sheen Test*
			Silty gravel, brown, loose, wet		
Trench 11 - 8 ft	4/19/07	8.0	Collected from center of trench Silty sand with gravel, gray, loose, moist	0.0	NS
Trench 12 - 1 ft	4/19/07	1.0	Surficial sample Silty coarse sand with gravel, brown, loose, moist	0.0	VSS
Surface Sample 1	4/19/07	0.0	Ground surface south of Trench 13, 172 ft east of southwest fence corner, 50 ft north of southern fence	0.0	SS
			Medium to coarse sand, black, loose, dry		
Trench 14 - 1 ft	4/19/07	1.0	From shallow material at Trench 14 Fine sandy silt, brown, minor gravel, minor organics (charred wood), firm, dry	0.0	VSS
Trench 15 - 8 ft	4/19/07	8.0	Beneath brick fill Fine sand, gray, firm, wet	0.0	VSS
Trench 23 - 0.5 ft	4/23/07	0.5	0 to 1 ft bgs from north end of trench Silty sand with gravel, dark brown, loose, dry	0.0	VSS
Surface Sample 2	4/23/07	0.0	25 ft west of fence beneath former metal tug boat which was demolished Sandy gravel, dark brown, loose, dry	28.0	HS
Surface Sample 3	4/23/07	0.0	Stained soil at fence line just north of electrical outlet, near bow of removed metal tug boat Sandy gravel, black, loose, dry	0.0	HS
Trench 26 - 0.5 ft	4/23/07	0.5	0 to 6 inches from Trench 25, at end of surface drainage ditch Sandy gravel, brown, loose, moist, minor amount of black sand blast grit	0.0	VSS
Trench 29 - 2 ft	4/23/07	2.0	North end of trench Clayey silt with gravel and organics, gray, firm, moist	0.0	SS
Trench 29 - 8 ft	4/23/07	8.0	South end of trench Silty fine sand, brown, abundant rootlets, plastic, wet	0.0	VSS
Trench 30 - 1 ft	4/23/07	1.0	North end, east side of trench Silty fine sand, brown, moderate gravel, firm, dry	0.0	VSS

* Sheen Test: NS = No Sheen, VSS = Very Slight Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

Table 2. Soil Sample Analytical Results - TPH and BTEX - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Gasoline Range NWTPH-Gx mg/Kg	Diesel Range NWTPH-Dx mg/Kg	Lube Oil Range NWTPH-Dx mg/Kg	Benzene EPA-8021 mg/Kg	Toluene EPA-8021 mg/Kg	Ethylbenzene EPA-8021 mg/Kg	Xylenes EPA-8021 mg/Kg	MTBE EPA-8021 mg/Kg
Trench 1 - 6 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 2.5 ft	4/17/07	ND(<3)	**110,000**	**120,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 11 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 3 - 5 ft	4/17/07	ND(<30)	**28,000**	**6,900**	ND(<0.3)	ND(<0.5)	ND(<0.5)	ND(<2.0)	ND(<1.0)
Trench 3 - 4 ft	4/17/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 4.5 ft - S	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 6 ft - N	4/18/07	ND(<3)	350	260	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 5 - 5 ft	4/18/07	ND(<3)	ND(<45)	110	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 6 - 8 ft	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 7 - 6 ft	4/19/07	ND(<3)	**3,200**	**5,600**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 8 - 8.5 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 9 - 4 ft	4/19/07	ND(<3)	**6,700**	**11,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 10 - 1 ft	4/19/07	**5,900**	ND(<100)	ND(<50)	**0.09**	0.76	4.3	**82**	ND(<0.1)
Trench 10 - 7 ft	4/19/07	14	900	600	ND(<0.03)	0.08	ND(<0.05)	0.6	ND(<0.1)
Trench 11 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 12 - 1 ft	4/19/07	ND(<3)	25	100	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 1	4/19/07	4	ND(<25)	90	ND(<0.03)	ND(<0.05)	ND(<0.05)	0.19	ND(<0.1)
Trench 14 - 1 ft	4/19/07	22	1,500	**2,800**	**0.03**	0.5	0.4	5.5	ND(<0.1)
Trench 15 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 23 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	430	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 2	4/23/07	ND(<30)	**10,000**	ND(<500)	ND(<0.3)	ND(<0.5)	ND(<0.5)	2.9	ND(<10)

Table 2. Soil Sample Analytical Results - TPH and BTEX - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Gasoline Range NWTPH-Gx mg/Kg	Diesel Range NWTPH-Dx mg/Kg	Lube Oil Range NWTPH-Dx mg/Kg	Benzene EPA-8021 mg/Kg	Toluene EPA-8021 mg/Kg	Ethylbenzene EPA-8021 mg/Kg	Xylenes EPA-8021 mg/Kg	MTBE EPA-8021 mg/Kg
Surface Sample 3	4/23/07	ND(6)	ND(<380)	**24,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 26 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 2 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 8 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 30 - 1 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
MTCA Method A (mg/kg)		100/30*	2,000	2,000	0.03	7	6	9	0.1

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)

NA - indicates sample not analyzed for the specified analyte

Bold - Concentration exceeded MTCA Method A cleanup level

* - Cleanup level dependent on benzene concentration

Table 3. Soil Sample Analytical Data - Metals - 210 McKenzie Avenue, Bellingham, WA

Sample ID	**Trench 1 - 6 ft**	**Trench 2 - 2.5 ft**	**Trench 3 - 5 ft**	**Trench 3 - 4 ft**	**Trench 5 - 5 ft**	**Trench 6 - 3 ft**	**Method A Cleanup Levels**
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Date	4/17/2007	4/17/2007	4/17/2007	4/17/2007	4/18/2007	4/18/2007	
Total Metals - EPA 6000/7000 Series Methods							
Antimony	ND(<3.0)	4.3	ND(<3.0)	14	160	3.9	
Arsenic	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	20
Beryllium	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	
Cadmium	1.7	**5.5**	1.6	**12**	**3.3**	**6.9**	2
Chromium	28	9.6	32	ND(<1.0)	35	11	2,000
Copper	20	120	22	6,900	630	290	
Lead	ND(<5.0)	100	ND(<5.0)	**830**	**3,000**	17	250
Mercury	ND(<0.02)	ND(<0.02)	ND(<0.02)	0.16	0.04	ND(<0.02)	2
Nickel	48	59	47	60	45	65	
Selenium	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Silver	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	44	85	80	2,500	630	28	

Sample ID	**Trench 7 - 6 ft**	**Surface Sample 1**	**Surface Sample 3**	**Trench 26 - 0.5 ft**	**Trench 29 - 2 ft**	**Method A Cleanup Levels**
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Date	4/19/2007	4/19/2007	4/23/2007	4/23/2007	4/23/2007	
Antimony	13	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	
Arsenic	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	20
Beryllium	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	
Cadmium	**23**	**19**	**3**	**4.2**	**2.4**	2
Chromium	13	ND(<1.0)	24	29	37	2,000
Copper	470	2,200	510	270	34	
Lead	62	52	71	18	ND(<5.0)	250
Mercury	ND(<0.02)	ND(<0.02)	1.1	0.04	0.04	2
Nickel	210	14	39	41	48	
Selenium	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Silver	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	62	4,300	340	94	58	

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)

BOLD indicates the sample fails to meet MTCA Method A cleanup standards

Table 4. Soil Sample Analytical Data - VOCs - 210 McKenzie Avenue, Bellingham, WA

Analyte	Sample ID	**Trench 2 - 2.5 ft** (µg/kg)	**Trench 3 - 4 ft** (µg/kg)	**Trench 5 - 5 ft** (µg/kg)	**Method A Cleanup Levels** (µg/kg)
	Date	4/17/2007	4/17/2007	4/18/2007	
EPA 8260 Method					
Dichlorodifluoromethane		ND(<10)	ND(<10)	ND(<10)	
Chloromethane		ND(<10)	ND(<10)	ND(<10)	
Vinyl Chloride		ND(<10)	ND(<10)	ND(<10)	
Bromomethane		ND(<10)	ND(<10)	ND(<10)	
Chloroethane		ND(<10)	ND(<10)	ND(<10)	
Trichlorofluoromethane		ND(<10)	ND(<10)	ND(<10)	
Acetone		410	ND(<50)	ND(<50)	
1,1-Dichloroethene		ND(<10)	ND(<10)	ND(<10)	
Methylene Chloride		**70**	ND(<10)	ND(<10)	20
Acrylonitrile		ND(<50)	ND(<50)	ND(<50)	
Methyl T-Butyl Ether		ND(<10)	ND(<10)	ND(<10)	100
Trans-1,2-Dichloroethene		ND(<10)	ND(<10)	ND(<10)	
1,1-Dichloroethane		ND(<10)	ND(<10)	ND(<10)	
2-Butanone		ND(<50)	ND(<50)	ND(<50)	
Cis-1,2-Dichloroethene		ND(<10)	ND(<10)	ND(<10)	
2,2-Dichloropropane		ND(<10)	ND(<10)	ND(<10)	
Bromochloromethane		ND(<10)	ND(<10)	ND(<10)	
Chloroform		ND(<10)	ND(<10)	ND(<10)	
1,1,1-Trichloroethane		ND(<10)	ND(<10)	ND(<10)	2,000
1,1-Dichloropropene		ND(<10)	ND(<10)	ND(<10)	
Carbon Tetrachloride		ND(<10)	ND(<10)	ND(<10)	
1,2-Dichloroethane		ND(<10)	ND(<10)	ND(<10)	
Benzene		ND(<10)	ND(<10)	ND(<10)	30
Trichloroethene		ND(<10)	ND(<10)	ND(<10)	
1,2-Dichloropropane		ND(<10)	ND(<10)	ND(<10)	
Dibromomethane		ND(<10)	ND(<10)	ND(<10)	
Bromodichloromethane		ND(<10)	ND(<10)	ND(<10)	
Trans-1,3-Dichloropropene		ND(<10)	ND(<10)	ND(<10)	
4-Methyl-2-Pentanone		ND(<50)	ND(<50)	ND(<50)	
Toluene		ND(<10)	ND(<10)	ND(<10)	7,000
Cis-1,3-Dichloropropene		ND(<10)	ND(<10)	ND(<10)	
1,1,2-Trichloroethane		ND(<10)	ND(<10)	ND(<10)	
2-Hexanone		ND(<50)	ND(<50)	ND(<50)	
1,3-Dichloropropane		ND(<10)	ND(<10)	ND(<10)	
Tetrachloroethylene		ND(<10)	ND(<10)	ND(<10)	50
Dibromochloromethane		ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromoethane		ND(<5)	ND(<5)	ND(<5)	
Chlorobenzene		ND(<10)	ND(<10)	ND(<10)	
1,1,1,2-Tetrachloroethane		ND(<10)	ND(<10)	ND(<10)	
Ethylbenzene		ND(<10)	ND(<10)	ND(<10)	600
M+P Xylene		ND(<20)	ND(<20)	ND(<20)	
Styrene		ND(<10)	ND(<10)	ND(<10)	
O-Xylene		ND(<10)	ND(<10)	ND(<10)	
Bromoform		ND(<10)	ND(<10)	ND(<10)	
Isopropylbenzene		ND(<10)	ND(<10)	ND(<10)	
1,1,2,2-Tetrachloroethane		ND(<10)	ND(<10)	ND(<10)	
1,2,3-Trichloropropane		ND(<10)	ND(<10)	ND(<10)	
Bromobenzene		ND(<10)	ND(<10)	ND(<10)	
N-Propyl Benzene		ND(<10)	ND(<10)	ND(<10)	
2-Chlorotoluene		ND(<10)	ND(<10)	ND(<10)	

Table 4. Soil Sample Analytical Data - VOCs - 210 McKenzie Avenue, Bellingham, WA

Analyte	Sample ID	**Trench 2 - 2.5 ft** (µg/kg)	**Trench 3 - 4 ft** (µg/kg)	**Trench 5 - 5 ft** (µg/kg)	**Method A Cleanup Levels** (µg/kg)
	Date	4/17/2007	4/17/2007	4/18/2007	
1,3,5-Trimethylbenzene		17	ND(<10)	ND(<10)	
4-Chlorotoluene		ND(<10)	ND(<10)	ND(<10)	
T-Butyl Benzene		ND(<10)	ND(<10)	ND(<10)	
1,2,4-Trimethylbenzene		17	ND(<10)	ND(<10)	
S-Butyl Benzene		ND(<10)	ND(<10)	ND(<10)	
P-Isopropyltoluene		ND(<10)	ND(<10)	ND(<10)	
1,3 Dichlorobenzene		ND(<10)	ND(<10)	ND(<10)	
1,4-Dichlorobenzene		ND(<10)	ND(<10)	ND(<10)	
N-Butylbenzene		ND(<10)	ND(<10)	ND(<10)	
1,2-Dichlorobenzene		ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromo 3-Chloropropane		ND(<50)	ND(<50)	ND(<50)	
1,2,4-Trichlorobenzene		ND(<10)	ND(<10)	ND(<10)	
Hexachlorobutadiene		ND(<10)	ND(<10)	ND(<10)	
Naphthalene		86	ND(<10)	ND(<10)	5,000
1,2,3-Trichlorobenzene		ND(<10)	ND(<10)	ND(<10)	

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)
BOLD indicates the sample fails to meet MTCA Method A cleanup standards

Table 5. Soil Sample Analytical Data - SVOCs - 210 McKenzie Avenue, Bellingham, WA

Sample ID	**Trench 2 - 2.5 ft**	**Trench 3 - 4 ft**	**Trench 5 - 5 ft**	**Trench 6 - 3 ft**	**Trench 7 - 6 ft**	**Trench 10 - 7 ft**	**Surface Sample 1**	**Method A Cleanup Levels**
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
EPA 8270 SIM Method (mg/kg)								
Naphthalene	15	ND(<0.04)	ND(<0.04)	ND(<0.04)	ND(<0.02)	0.15	0.07	
1-Methylnaphthalene	130	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.03	0.18	0.14	
2-Methylnaphthalene	100	ND(<0.04)	ND(<0.04)	0.04	0.05	0.27	0.13	
Total Naphthalenes	**245**			0.04	0.08	0.6	0.34	5*
Acenaphthylene	7.2	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.1	ND(<0.02)	0.09	
Acenaphthene	100	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.07	ND(<0.02)	0.18	
Fluorene	87	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.21	ND(<0.02)	0.06	
Phenanthrene	320	0.11	0.13	0.05	0.64	0.05	1.3	
Anthracene	84	ND(<0.04)	ND(<0.04)	0.05	0.44	ND(<0.02)	0.15	
Fluoranthene	150	0.12	0.16	ND(<0.04)	0.98	0.06	2.2	
Pyrene	190	0.16	0.19	0.23	2.6	0.1	2.6	
Benzo[A]Anthracene	68	0.08	0.05	ND(<0.04)	1	0.03	1.2	
Chrysene	120	0.1	0.09	0.23	2.5	0.05	1.5	
Benzo[B]Fluoranthene	26	0.07	0.05	0.12	0.83	0.02	1.6	
Benzo[K]Fluoranthene	11	0.06	0.06	0.06	0.44	0.02	1	
Benzo(A)Pyrene	33	0.09	0.08	0.26	1.2	0.03	0.86	
Indeno[1,2,3-Cd]Pyrene	9.8	0.07	0.06	0.1	0.46	ND(<0.02)	0.8	
Dibenz[A,H]Anthracene	11	ND(<0.04)	ND(<0.04)	0.09	0.4	ND(<0.02)	0.37	
Benzo[G,H,I]Perylene	15	0.08	0.07	0.23	0.72	0.02	0.77	
cPAH Total TEC**	**46.78**	**0.12**	**0.10**	**0.30**	**1.54**	0.04	**1.37**	0.1
EPA 8270 Method (µg/kg)								
Pyridine	ND(<20,000)	ND(<200)	ND(<200)	ND(<200)	ND(<800)	NA	NA	
N-Nitrosodimethylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Phenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Aniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroethyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Chlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,3-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,4-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzyl Alcohol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroisopropyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitroso-Di-N-Propylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachloroethane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Nitrobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Isophorone	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Nitrophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dimethylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzoic Acid	ND(<1,000)	ND(<1,000)	ND(<1,000)	ND(<2,000)	ND(<4,000)	NA	NA	
Bis(2-Chloroethoxy)Methane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2,4-Trichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloroaniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobutadiene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloro-3-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Naphthalene	11,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylnaphthalene	94,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1-Methylnaphthalene	120,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Total Naphthalenes	**225,000**							5,000*
Hexachlorocyclopentadiene	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
2,4,6-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4,5-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table 5. Soil Sample Analytical Data - SVOCs - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Trench 2 - 2.5 ft	Trench 3 - 4 ft	Trench 5 - 5 ft	Trench 6 - 3 ft	Trench 7 - 6 ft	Trench 10 - 7 ft	Surface Sample 1	Method A Cleanup Levels
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
2-Chloronaphthalene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthylene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Dimethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthene	69,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
3-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dinitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
4-Nitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Dibenzofuran	16,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,3,4,6-Tetrachlorophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Diethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Fluorene	61,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chlorophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
4,6-Dinitro-2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitrosodiphenylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Azobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Bromophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Pentachlorophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Phenanthrene	270,000	ND(<100)	110	ND(<200)	580	NA	NA	
Anthracene	60,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Carbazole	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Di-N-Butylphthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Fluoranthene	120,000	110	130	ND(<200)	950	NA	NA	
Pyrene	180,000	110	140	ND(<200)	2,900	NA	NA	
Butylbenzylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
3,3'-Dichlorobenzidine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[A]Anthracene	51,000	ND(<100)	ND(<100)	ND(<200)	870	NA	NA	
Chrysene	97,000	ND(<100)	ND(<100)	ND(<200)	2,600	NA	NA	
Bis(2-Ethylhexyl)Phthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Di-N-Octylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[B]Fluoranthene	19,000	ND(<100)	ND(<100)	ND(<200)	530	NA	NA	
Benzo[K]Fluoranthene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[A]Pyrene	22,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
Indeno[1,2,3-Cd]Pyrene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	460	NA	NA	
Dibenz[A,H]Anthracene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	430	NA	NA	
Benzo[G,H,I]Perylene	16,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
cPAH Total TEC**	**29,970**				**1,105**			100

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)
BOLD indicates the sample fails to meet MTCA Method A cleanup standards

NA - indicates sample not analyzed for the specified analyte

* - Cleanup level for sum of Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene

** - Toxic equivalent concentrations (TEC) for carcinogenic polyaromatic hydrocarbons (cPAHs) based on methodology in WAC 173-340-708(8)(e)

Table 6. Trench Water Analytical Data - 210 McKenzie Avenue, Bellingham, WA

Analyte	Sample ID	**Trench 1 Water** (μg/L)	**Trench 4 Water** (μg/L)	**Trench 19 Water** (μg/L)	**Method A Cleanup Levels** (μg/L)
	Date	4/17/2007	4/18/2007	4/23/2007	
Gasoline Range TPH - NWTPH-Gx		ND(<50)	ND(<50)	ND(<50)	1,000/800*
Diesel Range TPH - NWTPH-Dx		230	ND(<130)	170	500
Lube Oil Range TPH - NWTPH-Dx		ND(<290)	ND(<250)	ND(<250)	500
EPA Method 8021					
Benzene		ND(<1)	ND(<1)	ND(<1)	5
Toluene		ND(<1)	ND(<1)	ND(<1)	1,000
Ethylbenzene		ND(<1)	ND(<1)	ND(<1)	700
Xylenes		ND(<3)	ND(<3)	ND(<3)	1,000
Methyl tert-butyl ether (MTBE)		ND(<3)	ND(<3)	ND(<3)	20
Total Metals - EPA 6000/7000 Series Methods					
Antimony (Dissolved)		ND(<20)	28	24	
Arsenic (Dissolved)		ND(<5)	ND(<4)	ND(<5)	5
Beryllium (Dissolved)		8	6	8	
Cadmium (Dissolved)		**9**	**7**	**8**	5
Chromium (Dissolved)		14	9	19	50
Copper (Dissolved)		17	30	19	
Lead (Dissolved)		ND(<3)	ND(<3)	ND(<3)	15
Mercury (Dissolved)		ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Nickel (Dissolved)		ND(<20)	ND(<20)	ND(<20)	
Selenium (Dissolved)		ND(<40)	ND(<40)	ND(<40)	
Silver (Dissolved)		ND(<30)	ND(<30)	71	
Thallium (Dissolved)		ND(<2)	ND(<2)	ND(<2)	
Zinc (Dissolved)		12	140	100	

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)

NA - indicates sample not analyzed for the specified analyte

BOLD indicates the sample fails to meet MTCA Method A cleanup standards

* - Cleanup level dependent on benzene concentration

APPENDIX A

Trench Excavation Logs

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 1	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-6 ft: Sandy gravel, brown, loose (pit run gravel) - Gravel size decreases at ~4 ft bgs		
▼		W	Wet below 4 feet. Water sample collected. Oily sheen observed on water in trench.		
5		S	Soil sample collected at 6 ft bgs. Sandy gravel, brown, loose, wet (pit run gravel)	MS	0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #1

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West of former tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 2	Depth to Water:	5.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Crushed rock and pit run gravel fill		
	Brick Fill		1-5 ft: Brick fill with layers of black asphalt like substance intermixed (sample collected).		
2.5	Sludge Fill	S	Fine sand, black (asphalt-like), soft, moist	HS	0
	Glass Fill		1 foot layer of broken glass encountered at ~4 ft		
5 ▼	GM		Water entering trench from east at ~5.5 ft - West end of trench was dry to ~10 ft Silty sandy gravel, brown, loose, wet		
7.5			Transition zone not well defined due to excessive water in trench		
10	ML	S	Fine sand, greenish gray, firm, wet	VSS	0
12.5			Total trench depth 11 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #2

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 3	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel)		
			Minor brick fill encountered within 1 to 3 ft bgs		
2.5		S	3-4.5 ft: Medium-Coarse sand w/ gravel, black, loose, wet	NS	0
▼			Water encountered at ~4 ft bgs in south end of trench. Heavy Sheen noted on water.		
5	ML	S	4.5-6.5 ft: Silty fine sand, brown, firm, wet	HS	32
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #3

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	NW corner of property, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 4	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1.5 ft: Sandy gravel, brown, loose (pit run gravel)		
2.5	GC		1.5-4 ft: Silty gravel, brown, loose, moist		
▼	Brick Fill w/ black staining	S W	Clayey silt w/ moderate gravel, brown, sticky, wet Collected water sample. Slight Sheen noted.	VSS	0
5			4-6 ft: Brick fill encountered on east sidewall. No brick observed on west sidewall.		
	GC	S	6-7 ft: Silty gravel, black, abundant organics, sticky, wet	SS	0
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #4

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	South of tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 5	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Surficial steel reinforced concrete slab		
	GP		0.67-3.5 ft: Sandy gravel, brown, loose (pit run gravel)	VSS	
2.5	Brick Fill w/ black staining, metal debris, & organics		Encountered brick fill at ~ 4 ft bgs at east end of trench and ~ 1.5 ft bgs on the west		
	Brick Fill w/ black staining, metal debris, & organics		Water observed to enter trench at ~5 ft, but stablized at ~6 ft bgs*		
5 ▼	Brick Fill w/ black staining, metal debris, & organics	S	Sandy silt w/ moderate gravel and abundant organics, black, plastic, wet	NS	0
	Brick Fill w/ black staining, metal debris, & organics		Transition zone not well defined due to excessive water in trench		
7.5	GC		7-8.5 ft: Silty fine sand, gray, firm, wet		
			Total trench depth 8.5 ft bgs.		
10			* Trench water observed w/ Heavy Sheen and free floating black oil globules		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #5

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 5, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 6	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3.5 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, metal debris, & organics	S	Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end Medium to coarse sand sized metal fragmants, black, loose, dry	NS	0
5 ▼			Transition zone not well defined due to excessive water in trench		
7.5	GC	S	6-8.5 ft: Fine sand w/organics, greenish gray, firm, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #6

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 6, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 7	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, ash, metal debris, & organic material		Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end and encountered at lower depths Large chain links encountered in fill material		
5			Water encountered at ~5 ft bgs at east end, and 6.5 ft bgs at west end of trench*		
		S	Medium to coarse sand sized metal fragmants, black, loose, dry	MS	0
	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - was encountered below 6' depth on west end of trench		
7.5			Attempted to dig trench deeper but excessive water and sloughing sidewalls prevented further excavation.		
10			* Moderate sheen observed on water surface at east end of trench		
12.5			Total trench depth approximately 6.5 to 7 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #7

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of former forge building
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 8	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.5 ft: Sandy gravel, brown, loose (pit run gravel)		
	Black metal shavings, metal pieces, and other debris		0.5-1.2 ft: Steel reinforced concrete slab 1.2-4 ft: Miscellaneous fill materials		
2.5					
	Red Bricks		4-5 ft: layer of red brick fill material	NS	
5	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - depth approximate		
			Water encountered at ~7 ft bgs		
7.5	OH	S	6.5-8.5 ft: Silty fine sand w/ abundant organics, brown, sticky, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #8

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	N. end of boat storage area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 9	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GM		0-2 ft: Gravely silty clay material encountered above fill.		
2.5	CDF or concrete		3 ft: White colored rotten concrete or CDF		
▼	Black metal pieces, and organic debris	S	4 ft: Medium sand w/ gravel, abundant organics, black, hard, dry - Fill debris - Slucied material left sand sized metal fragments	NS	0
5					
	GC		7 ft: Clayey silt w/ gravel, gray, hard, dry		
7.5			Water encountered at depth but filled trench to 4 ft as seen in photo Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #9

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 10	Depth to Water:	3 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist	HS	514
2.5 ▼			2-9 ft: (depth approximate) Trash fill material - Trash includes: bottles, metal, wood, fiber glass Water encountered at 3 ft bgs with Heavy Sheen		
5					
7.5		S	7 ft: Silty gravel, brown, loose, wet	MS	13
	OL		Peat encountered at ~9 ft bgs		
10			Total trench depth 9.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #10

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 11	Depth to Water:	4.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2.5 ft: Coarse sandy gravel, brown, loose, moist		
2.5	Black staining, metal pieces, and debris		2.5-5 ft: Black stained layer, metal debris, and other miscellaneous fill material		
▼			Water encountered at approximately 4.5 ft bgs		
5	SM				
7.5		S	5-8 ft: Silty sand w/ gravel, gray, loose, moist	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #11

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SE corner of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 12	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM	S	1-2.5 ft: Silty coarse sand w/ gravel, brown, loose, moist	VSS	0
2.5					
	ML		2.5-10 ft: Clayey silt, tan, firm, dry (native diamicton)		
5					
			No water encountered in trench		
7.5					
10			Total trench depth 10 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #12

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Eastern edge of fenced western area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 13	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM		1-2.5 ft: Silty coarse sand w/gravel, brown, loose, moist to dry		
2.5	ML		2.5-6 ft: Silty fine sand w/ gravel, tan, hard, dry (native diamicton)		
5			No water encountered in trench No samples collected from trench		
7.5			Total trench depth 6 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #13

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW of gate in western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 14	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
0	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist - fill material - charred wood observed in sample collected from ~1 ft bgs	VSS	0
2.5	GM		2-7.5 ft: Silty fine sand w/ gravel, brown to olive brown, firm, dry (native diamicton) No water encountered in trench		
5					
7.5			Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #14

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 15	Depth to Water:	6 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: coarse sandy gravel, brown, loose, moist (fill material)		
5					
	Red Bricks		5.5-6.5 ft: Red brick fill material Water entering trench at brick fill		
7.5	GC	S	6.5-8.5 ft: Fine sand, gray, firm, wet	VSS	0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #15

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SE of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 16	Depth to Water:	approx. 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	Red Bricks		0-1 ft: Steel reinforced concrete slab - Encountered conduit pipes and old water lines just above the brick fill 1-2 ft: Red brick fill material		
2.5	GP		2-4 ft: Coarse sandy gravel fill material		
5	ML		4-8 ft: Native material. Silty fine sand and Sandy silts, brown, firm, wet at depth	NS	0
7.5			Water encountered at depth in trench - No sheen observed on water Did not collect sample from trench	NS	
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #16

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	East of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 17	Depth to Water:	6 to 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.8 ft: Steel reinforced concrete slab		
	Bricks		0.8-3.5 ft: Mixture of brick and discolored fill material		
2.5	Black stained soil and debris				
			3.5-7.5 ft: Coarse sandy gravel fill material, brown, loose, moist to wet		
5	GP		Water entered trench at ~7 ft bgs and leveled out at ~6 ft.		
			Old 1.5 ft diameter pipe encountered at ~7 ft bgs.		
			- Water entered from old pipe		
7.5			- Pipe removed from ground		
	ML		7.5-8 ft: Silty fine sand, brown, firm, wet		
			- No sheen observed on water in trench		
10			- No sample collected from trench		
			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #17

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	12' east of Trench 10
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 18	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2 ft: Coarse sandy gravel fill material		
2.5			2-5.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets Water encountered at 4 ft bgs with Heavy Sheen	HS	
5			Voids were observed in the fill material		
			No samples collected. Trench was excavated to characterize the extent of contamination near Trench 10.		
7.5			Total trench depth 5.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #18

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~20' east of Trench 18
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 19	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: Coarse sandy gravel fill material		
5		W	Water encountered at ~5 ft bgs with Heavy Sheen - Water sample collected 5.5-6.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets		
7.5			No soil samples collected. Trench was excavated to characterize the extent of contamination near Trench 10. Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #19

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of property, east of John's Repair
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 20	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.5 ft: Concrete slab		
2.5	GM		0.5-8.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Area investigated near concrete filled pipe north of UST location. No indication of tank near filled pipe.		0
7.5			- Dry material to depth of trench.		
			- No sample collected. No PID readings.		0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #20

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~40' south of concrete loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 21	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
			- No sample collected. No PID readings.		
7.5			Total trench depth 7.5 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #21

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 22	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
7.5			- No sample collected. No PID readings. Total trench depth 7 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #22

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 23	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	- Collected surface sample (0-1 ft) 0-1 ft: Silty sand w/ gravel, dark brown, loose, dry	VSS	0
5	ML		1-7.5 ft: Fine sandy silt, minor gravel, brown, firm, dry - Lenses of moist gray fine sands to sandy silts encountered at ~5' bgs on west side of trench		
7.5			- No water encountered in trench - Dry material to depth of trench. Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #23

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW edge of dug out slope on SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 24	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-4 ft: Silty sand w/ minor gravel, brown, firm dry (native diamicton)		
5	ML		4-7 ft: Fine sandy silt, brown, hard, dry (native diamicton) - Digging dificult in unit - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #24

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of dug out slope in SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 25	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		- Surficial puddles due to recent rainfall 0-4 ft: Silty sand w/ gravel, brown, firm, dry - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings. Total trench depth 4 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #25

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West end of surface drainage ditch, SE of IOTA
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 26	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	- Collected surficial sample of sand blast grit 0-1 ft: Sandy gravel, brown, loose, moist	VSS	0
2.5	ML		1-4 ft: Clayey silt, brown, hard, dry		0
5	CL		4-8 ft: Silty clay, gray, hard, dry		0
7.5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #26

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Center of the east edge of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 27	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		- Very slight sheen observed in surficial gravel 0-1.5 ft: Surficial gravel, brown, loose, dry	VSS	0
2.5	ML		1.5-6.5 ft: Fine sandy silt w/ minor gravel, brown, firm to hard, dry		0
5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #27

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	100' south of northern property edge, east side
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 28	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.25 ft: Asphalt 0.25-2.5 ft: Pit run gravel, crushed rock (fill material)		
2.5	ML		2.5-8 ft: Sandy silt, brown w/ minor gravel, brown, firm to hard, dry to moist at depth - Lenses of moist gray silts encountered deeper in trench - Moisture content at depth - No water encountered in trench - No sample collected. Total trench depth 8 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #28

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near NE corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 29	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Pit run gravel fill material at surface		
			0.67-6 ft: Clayey silt w/ gravel, gray, firm, moist		
2.5	OL	S	- Sample collected. Clayey silt w/ gravel and heavy organics, gray, firm, moist to wet	SS	0
			- Material appears to be reworked diamicton		
5			- Water encountered at ~7' bgs. Material was moist to wet from surface to depth.		
			- Transition area difficult to discern		
▼ 7.5	OH	S	6-12 ft: Large woody debris and peat layers encountered in reworked diamicton that was gray, plastic, and wet. Abundant organics observed below 6' depth.	VSS	0
			- Collected sample ~8' bgs. Silty fine sand w/ abundant organics, brown, plastic, wet		
10			- Walls of trench calved often due to moisture content of material.		
12.5			Total trench depth 12 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #29

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Below west end of removed loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 30	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	0-8 ft: Silty fine sand w/ moderate gravel, brown, firm, dry - Sample collected at 1' to characterize soil below demolished concrete loading ramp - Dry material to depth of trench. - No water encountered in trench	VSS	0
5					
7.5					
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #30

APPENDIX B

Original Laboratory Soil Sample Data

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 13:30 TRENCH 1 6FT
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/19/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/19/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/19/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/19/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/18/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/18/2007	EBS
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/19/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/19/2007	ICP
Cadmium	EPA-6010	1.7	MG/KG	4/19/2007	ICP
Chromium	EPA-6010	28	MG/KG	4/19/2007	ICP
Copper	EPA-6010	20	MG/KG	4/19/2007	ICP
Lead	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP
Nickel	EPA-6010	48	MG/KG	4/19/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/19/2007	ICP
Zinc	EPA-6010	44	MG/KG	4/19/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/19/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/19/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/19/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/19/2007	DLC
TPH-Diesel Range	NWTPH-DX	110000	MG/KG	4/18/2007	EBS
TPH-Oil Range	NWTPH-DX	120000	MG/KG	4/18/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Acetone	EPA-8260	410	UG/KG	4/19/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Methylene Chloride	EPA-8260	70	UG/KG	4/19/2007	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP

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DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	4/19/2007	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
M+P Xylene	EPA-8260	ND(<20)	UG/KG	4/19/2007	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
O-Xylene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	17	UG/KG	4/19/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	17	UG/KG	4/19/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP

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CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Naphthalene	EPA-8260	86	UG/KG	4/19/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Naphthalene	EPA-8270 SIM	15	MG/KG	5/1/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	130	MG/KG	5/1/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	100	MG/KG	5/1/2007	RAL
Acenaphthylene	EPA-8270 SIM	7.2	MG/KG	5/1/2007	RAL
Acenaphthene	EPA-8270 SIM	100	MG/KG	5/1/2007	RAL
Fluorene	EPA-8270 SIM	87	MG/KG	5/1/2007	RAL
Phenanthrene	EPA-8270 SIM	320	MG/KG	5/1/2007	RAL
Anthracene	EPA-8270 SIM	84	MG/KG	5/1/2007	RAL
Fluoranthene	EPA-8270 SIM	150	MG/KG	5/1/2007	RAL
Pyrene	EPA-8270 SIM	190	MG/KG	5/1/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	68	MG/KG	5/1/2007	RAL
Chrysene	EPA-8270 SIM	120	MG/KG	5/1/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	26	MG/KG	5/1/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	11	MG/KG	5/1/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	33	MG/KG	5/1/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	9.8	MG/KG	5/1/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	11	MG/KG	5/1/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	15	MG/KG	5/1/2007	RAL
Pyridine	EPA-8270	ND(<20000)	UG/KG	4/27/2007	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Phenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Aniline	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Chlorophenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzyl Alcohol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Methylphenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
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DATE RECEIVED: 4/18/2007
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CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Methylphenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Hexachloroethane	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Nitrobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Isophorone	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Nitrophenol	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
2,4-Dimethylphenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2,4-Dichlorophenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Naphthalene	EPA-8270	11000	UG/KG	4/27/2007	RAL
4-Chloroaniline	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2,6-Dichlorophenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Hexachlorobutadiene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Methylnaphthalene	EPA-8270	94000	UG/KG	4/27/2007	RAL
1-Methylnaphthalene	EPA-8270	120000	UG/KG	4/27/2007	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<50000)	UG/KG	4/27/2007	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Chloronaphthalene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2-Nitroaniline	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
Acenaphthylene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Dimethylphthalate	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
Acenaphthene	EPA-8270	69000	UG/KG	4/27/2007	RAL
3-Nitroaniline	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
2,4-Dinitrophenol	EPA-8270	ND(<50000)	UG/KG	4/27/2007	RAL
4-Nitrophenol	EPA-8270	ND(<50000)	UG/KG	4/27/2007	RAL
Dibenzofuran	EPA-8270	16000	UG/KG	4/27/2007	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
Diethylphthalate	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Fluorene	EPA-8270	61000	UG/KG	4/27/2007	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
4-Nitroaniline	EPA-8270	ND(<25000)	UG/KG	4/27/2007	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Azobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Hexachlorobenzene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Pentachlorophenol	EPA-8270	ND(<50000)	UG/KG	4/27/2007	RAL
Phenanthrene	EPA-8270	270000	UG/KG	4/27/2007	RAL
Anthracene	EPA-8270	60000	UG/KG	4/27/2007	RAL
Carbazole	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Di-N-Butylphthalate	EPA-8270	ND(<13000)	UG/KG	4/27/2007	RAL
Fluoranthene	EPA-8270	120000	UG/KG	4/27/2007	RAL
Pyrene	EPA-8270	180000	UG/KG	4/27/2007	RAL
Butylbenzylphthalate	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzo[A]Anthracene	EPA-8270	51000	UG/KG	4/27/2007	RAL
Chrysene	EPA-8270	97000	UG/KG	4/27/2007	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<13000)	UG/KG	4/27/2007	RAL
Di-N-Octylphthalate	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzo[B]Fluoranthene	EPA-8270	19000	UG/KG	4/27/2007	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzo[A]Pyrene	EPA-8270	22000	UG/KG	4/27/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<10000)	UG/KG	4/27/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270	16000	UG/KG	4/27/2007	RAL
Antimony	EPA-6010	4.3	MG/KG	4/19/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/19/2007	ICP
Cadmium	EPA-6010	5.5	MG/KG	4/19/2007	ICP
Chromium	EPA-6010	9.6	MG/KG	4/19/2007	ICP
Copper	EPA-6010	120	MG/KG	4/19/2007	ICP
Lead	EPA-6010	100	MG/KG	4/19/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP

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CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:15 TRENCH 2 2.5FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Nickel	EPA-6010	59	MG/KG	4/19/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/19/2007	ICP
Zinc	EPA-6010	85	MG/KG	4/19/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED BUNKER C

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:30 TRENCH 2 11FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/19/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/19/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/19/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/19/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/19/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/18/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/18/2007	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
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APPROVED BY:

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 14:50 TRENCH 3 5FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<30)	MG/KG	4/19/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<1.0)	MG/KG	4/19/2007	DLC
Benzene	EPA-8021	ND(<0.3)	MG/KG	4/19/2007	DLC
Toluene	EPA-8021	ND(<0.5)	MG/KG	4/19/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.5)	MG/KG	4/19/2007	DLC
Xylenes	EPA-8021	ND(<2.0)	MG/KG	4/19/2007	DLC
TPH-Diesel Range	NWTPH-DX	28000	MG/KG	4/18/2007	EBS
TPH-Oil Range	NWTPH-DX	6900	MG/KG	4/18/2007	EBS
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/19/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/19/2007	ICP
Cadmium	EPA-6010	1.6	MG/KG	4/19/2007	ICP
Chromium	EPA-6010	32	MG/KG	4/19/2007	ICP
Copper	EPA-6010	22	MG/KG	4/19/2007	ICP
Lead	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP
Nickel	EPA-6010	47	MG/KG	4/19/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/19/2007	ICP
Zinc	EPA-6010	80	MG/KG	4/19/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCTS WHICH ARE LIKELY WEATHERED DIESEL FUEL AND LUBE OIL

VOLATILE RANGE REPORTING LEVELS RAISED DUE TO SEMIVOLATILE RANGE OVERLAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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P.O. BOX 2715
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DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/24/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/19/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/24/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/24/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/24/2007	DLC
Xylenes	EPA-8021	ND(<0.02)	MG/KG	4/24/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/19/2007	EBS
TPH-Oil Range	NWTPH-DX	200	MG/KG	4/19/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Methylene Chloride	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP

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P.O. BOX 2715
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DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	4/19/2007	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
M+P Xylene	EPA-8260	ND(<20)	UG/KG	4/19/2007	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
O-Xylene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	4/19/2007	GAP

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CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/19/2007	GAP
Naphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Phenanthrene	EPA-8270 SIM	0.11	MG/KG	5/1/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Fluoranthene	EPA-8270 SIM	0.12	MG/KG	5/1/2007	RAL
Pyrene	EPA-8270 SIM	0.16	MG/KG	5/1/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.08	MG/KG	5/1/2007	RAL
Chrysene	EPA-8270 SIM	0.10	MG/KG	5/1/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.07	MG/KG	5/1/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.06	MG/KG	5/1/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.09	MG/KG	5/1/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.07	MG/KG	5/1/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.04)	MG/KG	5/1/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.08	MG/KG	5/1/2007	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Phenanthrene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	4/27/2007	RAL
Fluoranthene	EPA-8270	110	UG/KG	4/27/2007	RAL
Pyrene	EPA-8270	110	UG/KG	4/27/2007	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	4/27/2007	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Antimony	EPA-6010	14	MG/KG	4/19/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/19/2007	ICP
Cadmium	EPA-6010	12	MG/KG	4/19/2007	ICP
Chromium	EPA-6010	ND(<1.0)	MG/KG	4/19/2007	ICP
Copper	EPA-6010	6900	MG/KG	4/19/2007	ICP
Lead	EPA-6010	830	MG/KG	4/19/2007	ICP
Mercury	EPA-7471	0.16	MG/KG	4/23/2007	ICP

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WDOE ACCREDITATION #: C142

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CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 15:00 TRENCH 3 4FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Nickel	EPA-6010	60	MG/KG	4/19/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/19/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/19/2007	ICP
Zinc	EPA-6010	2500	MG/KG	4/19/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

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DATE: 5/2/2007
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DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704093-01	NWTPH-GX	TFT	99
0704093-01	EPA-8021	TFT	102
0704093-01	NWTPH-DX W/CLEANUP	C25	107
0704093-02	NWTPH-GX	TFT	85
0704093-02	EPA-8021	TFT	77
0704093-02	NWTPH-DX	C25	106
0704093-03	NWTPH-GX	TFT	50
0704093-03	EPA-8021	TFT	**
0704093-03	NWTPH-DX	C25	*
0704093-03	EPA-8260	1,2-Dichloroethane-d4	**
0704093-03	EPA-8260	Toluene-d8	103
0704093-03	EPA-8260	4-Bromofluorobenzene	118
0704093-03	EPA-8270 SIM	Terphenyl-d14	130
0704093-03	EPA-8270	2-Fluorophenol	*
0704093-03	EPA-8270	Phenol-d6	*
0704093-03	EPA-8270	Nitrobenzene-d5	*
0704093-03	EPA-8270	2-Fluorobiphenyl	*
0704093-03	EPA-8270	2,4,6-Tribromophenol	*
0704093-03	EPA-8270	Terphenyl-d14	*
0704093-04	NWTPH-GX	TFT	58
0704093-04	EPA-8021	TFT	62
0704093-04	NWTPH-DX	C25	82
0704093-05	NWTPH-GX	TFT	*
0704093-05	EPA-8021	TFT	*
0704093-05	NWTPH-DX	C25	*
0704093-06	NWTPH-GX	TFT	52
0704093-06	EPA-8021	TFT	**
0704093-06	NWTPH-DX	C25	97
0704093-06	EPA-8260	1,2-Dichloroethane-d4	109
0704093-06	EPA-8260	Toluene-d8	100
0704093-06	EPA-8260	4-Bromofluorobenzene	**
0704093-06	EPA-8270 SIM	Terphenyl-d14	85
0704093-06	EPA-8270	2-Fluorophenol	64
0704093-06	EPA-8270	Phenol-d6	81
0704093-06	EPA-8270	Nitrobenzene-d5	102
0704093-06	EPA-8270	2-Fluorobiphenyl	62
0704093-06	EPA-8270	2,4,6-Tribromophenol	59
0704093-06	EPA-8270	Terphenyl-d14	72

* SURROGATE DILUTED OUT OF CALIBRATION RANGE

** SURROGATE OUTSIDE OF CONTROL LIMITS DUE TO MATRIX EFFECT

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 9:00 TRENCH 4 4.5FTS
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/20/2007	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 9:35 TRENCH 4 6FT N
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	350	MG/KG	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	260	MG/KG	4/20/2007	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY BUNKER C

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<45)	MG/KG	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX	110	MG/KG	4/20/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Chloromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Vinyl Chloride	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Bromomethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Chloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Acetone	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Methylene Chloride	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Acrylonitrile	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
2-Butanone	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Bromochloromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Chloroform	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Benzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Trichloroethene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Dibromomethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP

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CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Bromodichloromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP
Toluene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
2-Hexanone	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Dibromochloromethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<5)	UG/KG	4/24/2007	GAP
Chlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Ethylbenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
M+P Xylene	EPA-8260	ND(<20)	UG/KG	4/24/2007	GAP
Styrene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
O-Xylene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Bromoform	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Isopropylbenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Bromobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
N-Butylbenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<50)	UG/KG	4/24/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,2,4-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Naphthalene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<10)	UG/KG	4/24/2007	GAP
Naphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Phenanthrene	EPA-8270 SIM	0.13	MG/KG	4/30/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Fluoranthene	EPA-8270 SIM	0.16	MG/KG	4/30/2007	RAL
Pyrene	EPA-8270 SIM	0.19	MG/KG	4/30/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.05	MG/KG	4/30/2007	RAL
Chrysene	EPA-8270 SIM	0.09	MG/KG	4/30/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.05	MG/KG	4/30/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.06	MG/KG	4/30/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.08	MG/KG	4/30/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.06	MG/KG	4/30/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.07	MG/KG	4/30/2007	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Phenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Aniline	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Chlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzyl Alcohol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL

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DATE: 5/4/2007
CCIL JOB #: 0704103
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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachloroethane	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Nitrobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Isophorone	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Nitrophenol	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,4-Dimethylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzoic Acid	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Naphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Chloroaniline	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,6-Dichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorobutadiene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
1-Methylnaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Chloronaphthalene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Acenaphthylene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Dimethylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Acenaphthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
3-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,4-Dinitrophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
4-Nitrophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Dibenzofuran	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
Diethylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Fluorene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Nitroaniline	EPA-8270	ND(<250)	UG/KG	4/27/2007	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Azobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Hexachlorobenzene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Pentachlorophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Phenanthrene	EPA-8270	110	UG/KG	4/27/2007	RAL
Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Carbazole	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Di-N-Butylphthalate	EPA-8270	ND(<130)	UG/KG	4/27/2007	RAL
Fluoranthene	EPA-8270	130	UG/KG	4/27/2007	RAL
Pyrene	EPA-8270	140	UG/KG	4/27/2007	RAL
Butylbenzylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[A]Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Chrysene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<130)	UG/KG	4/27/2007	RAL
Di-N-Octylphthalate	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[A]Pyrene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<100)	UG/KG	4/27/2007	RAL
Antimony	EPA-6010	160	MG/KG	4/20/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/20/2007	ICP
Cadmium	EPA-6010	3.3	MG/KG	4/20/2007	ICP
Chromium	EPA-6010	35	MG/KG	4/20/2007	ICP
Copper	EPA-6010	630	MG/KG	4/20/2007	ICP
Lead	EPA-6010	3000	MG/KG	4/20/2007	ICP
Mercury	EPA-7471	0.04	MG/KG	4/23/2007	ICP

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P.O. BOX 2715
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DATE: 5/4/2007
CCIL JOB #: 0704103
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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 10:30 TRENCH 5 5FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Nickel	EPA-6010	45	MG/KG	4/20/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/20/2007	ICP
Zinc	EPA-6010	630	MG/KG	4/20/2007	ICP

NOTES: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY LUBE OIL

DIESEL RANGE REPORTING LIMIT RAISED DUE TO SAMPLE VOLUME

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

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CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 14:05 TRENCH 6 3FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.04	MG/KG	4/30/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Phenanthrene	EPA-8270 SIM	0.05	MG/KG	4/30/2007	RAL
Anthracene	EPA-8270 SIM	0.05	MG/KG	4/30/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Pyrene	EPA-8270 SIM	0.23	MG/KG	4/30/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.04)	MG/KG	4/30/2007	RAL
Chrysene	EPA-8270 SIM	0.23	MG/KG	4/30/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.12	MG/KG	4/30/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.06	MG/KG	4/30/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.26	MG/KG	4/30/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.10	MG/KG	4/30/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.09	MG/KG	4/30/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.23	MG/KG	4/30/2007	RAL
Pyridine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Phenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Aniline	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Chlorophenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzyl Alcohol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Methylphenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Methylphenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Hexachloroethane	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Nitrobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL

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CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 14:05 TRENCH 6 3FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Isophorone	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Nitrophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
2,4-Dimethylphenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzoic Acid	EPA-8270	ND(<2000)	UG/KG	4/27/2007	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2,4-Dichlorophenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Naphthalene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Chloroaniline	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2,6-Dichlorophenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Hexachlorobutadiene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Methylnaphthalene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
1-Methylnaphthalene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Chloronaphthalene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2-Nitroaniline	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Acenaphthylene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Dimethylphthalate	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Acenaphthene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
3-Nitroaniline	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
2,4-Dinitrophenol	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
4-Nitrophenol	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
Dibenzofuran	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
2,4-Dinitrotoluene	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
Diethylphthalate	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Fluorene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Nitroaniline	EPA-8270	ND(<500)	UG/KG	4/27/2007	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 14:05 TRENCH 6 3FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Azobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Hexachlorobenzene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Pentachlorophenol	EPA-8270	ND(<1000)	UG/KG	4/27/2007	RAL
Phenanthrene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Anthracene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Carbazole	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Di-N-Butylphthalate	EPA-8270	ND(<260)	UG/KG	4/27/2007	RAL
Fluoranthene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Pyrene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Butylbenzylphthalate	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzo[A]Anthracene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Chrysene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<260)	UG/KG	4/27/2007	RAL
Di-N-Octylphthalate	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzo[B]Fluoranthene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzo[A]Pyrene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND(<200)	UG/KG	4/27/2007	RAL
Antimony	EPA-6010	3.9	MG/KG	4/20/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/20/2007	ICP
Cadmium	EPA-6010	6.9	MG/KG	4/20/2007	ICP
Chromium	EPA-6010	11	MG/KG	4/20/2007	ICP
Copper	EPA-6010	290	MG/KG	4/20/2007	ICP
Lead	EPA-6010	17	MG/KG	4/20/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP
Nickel	EPA-6010	65	MG/KG	4/20/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/20/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/20/2007	ICP

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 14:05 TRENCH 6 3FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Zinc	EPA-6010	28	MG/KG	4/20/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 14:50 TRENCH 6 8FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/20/2007	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704103-01	NWTPH-GX	TFT	68
0704103-01	EPA-8021	TFT	72
0704103-01	NWTPH-DX	C25	99
0704103-02	NWTPH-GX	TFT	102
0704103-02	EPA-8021	TFT	102
0704103-02	NWTPH-DX W/ CLEANUP	C25	108
0704103-03	NWTPH-GX	TFT	52
0704103-03	EPA-8021	TFT	*
0704103-03	NWTPH-DX W/ CLEANUP	C25	121
0704103-04	NWTPH-GX	TFT	54
0704103-04	EPA-8021	TFT	*
0704103-04	NWTPH-DX	C25	111
0704103-04	EPA-8260	1,2-Dichloroethane-d4	*
0704103-04	EPA-8260	Toluene-d8	*
0704103-04	EPA-8260	4-Bromofluorobenzene	*
0704103-04	EPA-8270 SIM	Terphenyl-d14	85
0704103-04	EPA-8270	2-Fluorophenol	59
0704103-04	EPA-8270	Phenol-d6	78
0704103-04	EPA-8270	Nitrobenzene-d5	101
0704103-04	EPA-8270	2-Fluorobiphenyl	58
0704103-04	EPA-8270	2,4,6-Tribromophenol	58
0704103-04	EPA-8270	Terphenyl-d14	74
0704103-05	EPA-8270 SIM	Terphenyl-d14	93
0704103-05	EPA-8270	2-Fluorophenol	98
0704103-05	EPA-8270	Phenol-d6	115
0704103-05	EPA-8270	Nitrobenzene-d5	160**
0704103-05	EPA-8270	2-Fluorobiphenyl	91
0704103-05	EPA-8270	2,4,6-Tribromophenol	148**
0704103-05	EPA-8270	Terphenyl-d14	116
0704103-06	NWTPH-GX	TFT	70
0704103-06	EPA-8021	TFT	71
0704103-06	NWTPH-DX	C25	101

* SURROGATES OUTSIDE OF QC LIMITS DUE TO MATRIX EFFECT.

** SURROGATES OUTSIDE OF CONTROL LIMITS WITH A HIGH BIAS. SAMPLE WAS NON-DETECT FOR ALL TARGET ANALYTES. NO CORRECTIVE ACTION TAKEN.

APPROVED BY:

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 9:00 TRENCH 7 6FT
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/23/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/23/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/23/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/23/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/23/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/23/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	3200	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	5600	MG/KG	4/23/2007	EBS
Naphthalene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/1/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.03	MG/KG	5/1/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.05	MG/KG	5/1/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.10	MG/KG	5/1/2007	RAL
Acenaphthene	EPA-8270 SIM	0.07	MG/KG	5/1/2007	RAL
Fluorene	EPA-8270 SIM	0.21	MG/KG	5/1/2007	RAL
Phenanthrene	EPA-8270 SIM	0.64	MG/KG	5/1/2007	RAL
Anthracene	EPA-8270 SIM	0.44	MG/KG	5/1/2007	RAL
Fluoranthene	EPA-8270 SIM	0.98	MG/KG	5/1/2007	RAL
Pyrene	EPA-8270 SIM	2.6	MG/KG	5/1/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	1.0	MG/KG	5/1/2007	RAL
Chrysene	EPA-8270 SIM	2.5	MG/KG	5/1/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.83	MG/KG	5/1/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.44	MG/KG	5/1/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	1.2	MG/KG	5/1/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.46	MG/KG	5/1/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.40	MG/KG	5/1/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.72	MG/KG	5/1/2007	RAL
Pyridine	EPA-8270	ND(<800)	UG/KG	4/28/2007	RAL
N-Nitrosodimethylamine	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Phenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Aniline	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Chlorophenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
1,3-Dichlorobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
1,4-Dichlorobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 9:00 TRENCH 7 6FT
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Benzyl Alcohol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
1,2-Dichlorobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Methylphenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Methylphenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Hexachloroethane	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Nitrobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Isophorone	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Nitrophenol	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
2,4-Dimethylphenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Benzoic Acid	EPA-8270	ND(<4000)	UG/KG	4/28/2007	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2,4-Dichlorophenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Naphthalene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Chloroaniline	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2,6-Dichlorophenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Hexachlorobutadiene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Methylnaphthalene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
1-Methylnaphthalene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Hexachlorocyclopentadiene	EPA-8270	ND(<2000)	UG/KG	4/28/2007	RAL
2,4,6-Trichlorophenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2,4,5-Trichlorophenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Chloronaphthalene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2-Nitroaniline	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
Acenaphthylene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Dimethylphthalate	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
2,6-Dinitrotoluene	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
Acenaphthene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
3-Nitroaniline	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
2,4-Dinitrophenol	EPA-8270	ND(<2000)	UG/KG	4/28/2007	RAL
4-Nitrophenol	EPA-8270	ND(<2000)	UG/KG	4/28/2007	RAL
Dibenzofuran	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 9:00 TRENCH 7 6FT
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
2,4-Dinitrotoluene	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
Diethylphthalate	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Fluorene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Nitroaniline	EPA-8270	ND(<1000)	UG/KG	4/28/2007	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
N-Nitrosodiphenylamine	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Azobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Hexachlorobenzene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Pentachlorophenol	EPA-8270	ND(<2000)	UG/KG	4/28/2007	RAL
Phenanthrene	EPA-8270	580	UG/KG	4/28/2007	RAL
Anthracene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Carbazole	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Di-N-Butylphthalate	EPA-8270	ND(<520)	UG/KG	4/28/2007	RAL
Fluoranthene	EPA-8270	950	UG/KG	4/28/2007	RAL
Pyrene	EPA-8270	2900	UG/KG	4/28/2007	RAL
Butylbenzylphthalate	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Benzo[A]Anthracene	EPA-8270	870	UG/KG	4/28/2007	RAL
Chrysene	EPA-8270	2600	UG/KG	4/28/2007	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND(<520)	UG/KG	4/28/2007	RAL
Di-N-Octylphthalate	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Benzo[B]Fluoranthene	EPA-8270	530	UG/KG	4/28/2007	RAL
Benzo[K]Fluoranthene	EPA-8270	ND(<400)	UG/KG	4/28/2007	RAL
Benzo[A]Pyrene	EPA-8270	850	UG/KG	4/28/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	460	UG/KG	4/28/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270	430	UG/KG	4/28/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270	850	UG/KG	4/28/2007	RAL
Antimony	EPA-6010	13	MG/KG	4/24/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/24/2007	ICP
Cadmium	EPA-6010	23	MG/KG	4/24/2007	ICP

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CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 9:00 TRENCH 7 6FT
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Chromium	EPA-6010	13	MG/KG	4/24/2007	ICP
Copper	EPA-6010	470	MG/KG	4/24/2007	ICP
Lead	EPA-6010	62	MG/KG	4/24/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP
Nickel	EPA-6010	210	MG/KG	4/24/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/24/2007	ICP
Zinc	EPA-6010	62	MG/KG	4/24/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY WEATHERED BUNKER C

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 10:15 TRENCH 8 8.5FT
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/23/2007	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 10:40 TRENCH 9 4FT
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	6700	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	11000	MG/KG	4/23/2007	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY WEATHERED BUNKER C

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P.O. BOX 2715
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DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 10:50 TRENCH 10 1FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	5900	MG/KG	4/24/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	0.09	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	0.76	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	4.3	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	82	MG/KG	4/24/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<100)	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/23/2007	EBS

NOTES: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY HIGHLY WEATHERED GASOLINE

DIESEL RANGE REPORTING LEVEL RAISED DUE TO VOLATILE RANGE PRODUCT OVERLAP

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CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 11:10 TRENCH 10 7FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	14	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	0.08	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	0.6	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	900	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	600	MG/KG	4/23/2007	EBS
Naphthalene	EPA-8270 SIM	0.15	MG/KG	5/4/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.18	MG/KG	5/4/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.27	MG/KG	5/4/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Phenanthrene	EPA-8270 SIM	0.05	MG/KG	5/4/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Fluoranthene	EPA-8270 SIM	0.06	MG/KG	5/4/2007	RAL
Pyrene	EPA-8270 SIM	0.10	MG/KG	5/4/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.03	MG/KG	5/4/2007	RAL
Chrysene	EPA-8270 SIM	0.05	MG/KG	5/4/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.02	MG/KG	5/4/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.02	MG/KG	5/4/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.03	MG/KG	5/4/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	5/4/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.02	MG/KG	5/4/2007	RAL

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 11:10 TRENCH 10 7FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCTS THAT ARE LIKELY HIGHLY WEATHERED GASOLINE AND BUNKER C

PAH EXTRACTION PERFORMED OUTSIDE OF HOLD TIME

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CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 11:35 TRENCH 11 8FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/23/2007	EBS

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 11:50 TRANCH 12 1FT
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	25	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	100	MG/KG	4/23/2007	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT THAT IS LIKELY WEATHERED BUNKER C

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 13:30 SURFACE SAMPLE 1
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	4	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	0.19	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<25)	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	90	MG/KG	4/23/2007	EBS
Naphthalene	EPA-8270 SIM	0.07	MG/KG	5/4/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.14	MG/KG	5/4/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.13	MG/KG	5/4/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.09	MG/KG	5/4/2007	RAL
Acenaphthene	EPA-8270 SIM	0.18	MG/KG	5/4/2007	RAL
Fluorene	EPA-8270 SIM	0.06	MG/KG	5/4/2007	RAL
Phenanthrene	EPA-8270 SIM	1.3	MG/KG	5/4/2007	RAL
Anthracene	EPA-8270 SIM	0.15	MG/KG	5/4/2007	RAL
Fluoranthene	EPA-8270 SIM	2.2	MG/KG	5/4/2007	RAL
Pyrene	EPA-8270 SIM	2.6	MG/KG	5/4/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	1.2	MG/KG	5/4/2007	RAL
Chrysene	EPA-8270 SIM	1.5	MG/KG	5/4/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	1.6	MG/KG	5/4/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	1.0	MG/KG	5/4/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.86	MG/KG	5/4/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.80	MG/KG	5/4/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.37	MG/KG	5/4/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.77	MG/KG	5/4/2007	RAL
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/24/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/24/2007	ICP
Cadmium	EPA-6010	19	MG/KG	4/24/2007	ICP
Chromium	EPA-6010	ND(<1.0)	MG/KG	4/24/2007	ICP
Copper	EPA-6010	2200	MG/KG	4/24/2007	ICP
Lead	EPA-6010	52	MG/KG	4/24/2007	ICP
Mercury	EPA-7471	ND(<0.02)	MG/KG	4/23/2007	ICP

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CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 13:30 SURFACE SAMPLE 1
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Nickel	EPA-6010	14	MG/KG	4/24/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/24/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/24/2007	ICP
Zinc	EPA-6010	4300	MG/KG	4/24/2007	ICP

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PAH EXTRACTION PERFORMED OUTSIDE OF HOLD TIME

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 13:50 TRENCH 14 1FT
CCIL SAMPLE #: -09

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	22	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	0.03	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	0.5	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	0.4	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	5.5	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	1500	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	2800	MG/KG	4/23/2007	EBS

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CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/19/2007 14:15 TRENCH 15 8FT
CCIL SAMPLE #: -10

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/20/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/20/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/20/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/23/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/23/2007	EBS

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID		METHOD	SUR ID	% RECV
0704109-01		NWTPH-GX	TFT	55
0704109-01		EPA-8021	TFT	46*
0704109-01		NWTPH-DX W/ CLEANUP	C25	**
0704109-01		EPA-8270 SIM	Terphenyl-d14	84
0704109-01		EPA-8270	2-Fluorophenol	83
0704109-01		EPA-8270	Phenol-d6	117
0704109-01		EPA-8270	Nitrobenzene-d5	139*
0704109-01		EPA-8270	2-Fluorobiphenyl	80
0704109-01		EPA-8270	2,4,6-Tribromophenol	148*
0704109-01		EPA-8270	Terphenyl-d14	96
0704109-02		NWTPH-GX	TFT	62
0704109-02		EPA-8021	TFT	70
0704109-02		NWTPH-DX	C25	95
0704109-03		NWTPH-GX	TFT	55
0704109-03		EPA-8021	TFT	64
0704109-03		NWTPH-DX W/ CLEANUP	C25	**
0704109-04		NWTPH-GX	TFT	**
0704109-04		EPA-8021	TFT	103
0704109-04		NWTPH-DX	C25	85
0704109-04	XYLENE ONLY	EPA-8021	TFT	**
0704109-05		NWTPH-GX	TFT	69
0704109-05		EPA-8021	TFT	57*
0704109-05		NWTPH-DX	C25	**
0704109-05		EPA-8270 SIM	Terphenyl-d14	119
0704109-06		NWTPH-GX	TFT	80
0704109-06		EPA-8021	TFT	64
0704109-06		NWTPH-DX	C25	102
0704109-07		NWTPH-GX	TFT	80
0704109-07		EPA-8021	TFT	65
0704109-07		NWTPH-DX	C25	115
0704109-08		NWTPH-GX	TFT	91
0704109-08		EPA-8021	TFT	75
0704109-08		NWTPH-DX W/ CLEANUP	C25	141*
0704109-08		EPA-8270 SIM	Terphenyl-d14	123
0704109-09		NWTPH-GX	TFT	78
0704109-09		EPA-8021	TFT	64
0704109-09		NWTPH-DX W/ CLEANUP	C25	**
0704109-10		NWTPH-GX	TFT	75
0704109-10		EPA-8021	TFT	74
0704109-10		NWTPH-DX	C25	88

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/7/2007
CCIL JOB #: 0704109
DATE RECEIVED: 4/20/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV

* SURROGATES OUTSIDE OF QC LIMITS DUE TO MATRIX EFFECT

** SURROGATES DILUTED OUTSIDE OF CALIBRATION RANGE

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 11:20 SURFACE SAMPLE 2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<30)	MG/KG	4/26/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<10)	MG/KG	4/26/2007	DLC
Benzene	EPA-8021	ND(<0.3)	MG/KG	4/26/2007	DLC
Toluene	EPA-8021	ND(<0.5)	MG/KG	4/26/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.5)	MG/KG	4/26/2007	DLC
Xylenes	EPA-8021	2.9	MG/KG	4/26/2007	DLC
TPH-Diesel Range	NWTPH-DX	10000	MG/KG	4/27/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<500)	MG/KG	4/27/2007	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY DIESEL FUEL

NWTPH-GX/BTEX/MTBE REPORTING LIMITS RAISED DUE TO SEMIVOLATILE PRODUCT

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 11:30 SURFACE SAMPLE 3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(6)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<380)	MG/KG	4/27/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	24000	MG/KG	4/27/2007	EBS
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/25/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/25/2007	ICP
Cadmium	EPA-6010	3.0	MG/KG	4/25/2007	ICP
Chromium	EPA-6010	24	MG/KG	4/25/2007	ICP
Copper	EPA-6010	510	MG/KG	4/25/2007	ICP
Lead	EPA-6010	71	MG/KG	4/25/2007	ICP
Mercury	EPA-7471	1.1	MG/KG	5/1/2007	CEO
Nickel	EPA-6010	39	MG/KG	4/25/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/25/2007	ICP
Zinc	EPA-6010	340	MG/KG	4/25/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL

DIESEL RANGE REPORTING LIMIT RAISED DUE TO OIL RANGE PRODUCT OVERLAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 11:50 TRENCH 26 0.5 FT
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/25/2007	EBS
TPH-Oil Range	NWTPH-DX	200	MG/KG	4/25/2007	EBS
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/25/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/25/2007	ICP
Cadmium	EPA-6010	4.2	MG/KG	4/25/2007	ICP
Chromium	EPA-6010	29	MG/KG	4/25/2007	ICP
Copper	EPA-6010	270	MG/KG	4/25/2007	ICP
Lead	EPA-6010	18	MG/KG	4/25/2007	ICP
Mercury	EPA-7471	0.04	MG/KG	5/1/2007	CEO
Nickel	EPA-6010	41	MG/KG	4/25/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/25/2007	ICP
Zinc	EPA-6010	94	MG/KG	4/25/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 14:00 TRENCH 29 2 FT
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/25/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/25/2007	EBS
Antimony	EPA-6010	ND(<3.0)	MG/KG	4/25/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	4/25/2007	ICP
Cadmium	EPA-6010	2.4	MG/KG	4/25/2007	ICP
Chromium	EPA-6010	37	MG/KG	4/25/2007	ICP
Copper	EPA-6010	34	MG/KG	4/25/2007	ICP
Lead	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Mercury	EPA-7471	0.04	MG/KG	5/1/2007	CEO
Nickel	EPA-6010	48	MG/KG	4/25/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	4/25/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	4/25/2007	ICP
Zinc	EPA-6010	58	MG/KG	4/25/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 14:25 TRENCH 29 8 FT
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/25/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/25/2007	EBS

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 15:00 TRENCH 30 1 FT
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/25/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	4/25/2007	EBS

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** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 10:45 TRENCH 23-0.5 FT
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<3)	MG/KG	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<0.1)	MG/KG	4/25/2007	DLC
Benzene	EPA-8021	ND(<0.03)	MG/KG	4/25/2007	DLC
Toluene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<0.05)	MG/KG	4/25/2007	DLC
Xylenes	EPA-8021	ND(<0.2)	MG/KG	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	4/27/2007	EBS
TPH-Oil Range	NWTPH-DX	430	MG/KG	4/27/2007	EBS

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY LUBE OIL

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704127-01	NWTPH-GX	TFT	98
0704127-01	EPA-8021	TFT	93
0704127-01	NWTPH-DX W/CLEANUP	C25	95
0704127-02	NWTPH-GX	TFT	*
0704127-02	EPA-8021	TFT	*
0704127-02	NWTPH-DX	C25	*
0704127-03	NWTPH-GX	TFT	85
0704127-03	EPA-8021	TFT	68
0704127-03	NWTPH-DX W/CLEANUP	C25	*
0704127-04	NWTPH-GX	TFT	75
0704127-04	EPA-8021	TFT	63
0704127-04	NWTPH-DX	C25	115
0704127-05	NWTPH-GX	TFT	82
0704127-05	EPA-8021	TFT	78
0704127-05	NWTPH-DX	C25	111
0704127-06	NWTPH-GX	TFT	81
0704127-06	EPA-8021	TFT	68
0704127-06	NWTPH-DX	C25	112
0704127-07	NWTPH-GX	TFT	77
0704127-07	EPA-8021	TFT	75
0704127-07	NWTPH-DX	C25	110
0704127-08	NWTPH-GX	TFT	74
0704127-08	EPA-8021	TFT	61
0704127-08	NWTPH-DX	C25	97

* SURROGATE DILUTED OUT OF CALIBRATION RANGE

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/17/07 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie Ave
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: PO Box 2715
Bellingham, WA 98227
PHONE: 360 752-9571 FAX: 360 752-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 1 Water	4/17/07	1:20	water			X	X	X	X								X					
2. Trench 1 6ft		1:30	soil			X	X	X	X								X					
3. Trench 2 2.5ft		2:15	soil			X	X	X	X		X			X	X		X					
4. Trench 2 11ft		2:30	soil			X	X	X	X													
5. Trench 3 5ft		2:50	soil			X	X	X	X								X					
6. Trench 3 4ft		3:00	soil			X	X	X	X		X			X	X		X					
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS Please filter and preserve metals/water sample at lab

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 4/17/07 3:50
   Received By:
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
☒ 10 Standard ☐ 5 ☐ 3 ☐ 2 ☐ 1 ☐ SAME DAY

Fuels & Hydrocarbon Analysis
☒ 5 Standard ☐ 3 ☐ 1 ☐ SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/18/07 Page 1 Of

PROJECT ID: RAB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Heidi Castleman
ADDRESS: PO Box 2715
Bellingham WA 98227
PHONE: 360 752-9571 FAX: 360 753-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☑ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☑	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☑ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 4 - 4.5ft	4/18/07	9:00	soil			X	X	X	X												2	
2. Trench 4 Water		9:15	water			X	X	X	X								X				4	
3. Trench 4 6ft - N		9:35	soil			X	X	X	X												2	
4. Trench 5 5ft		10:30	soil			X	X	X	X		X			X	X		X				3	
5. Trench 6 3ft		2:05	soil											X	X		X				1	
6. Trench 6 8ft		2:50	soil			X	X	X	X												2	
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS Please filter and preserve water sample (metals) upon receipt

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 4-18-07 3:45p
   Received By:
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis
5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
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(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/19/07 Page 1 Of

PROJECT ID:	COB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	PO Box 2715
	Bellingham, WA 98227
PHONE:	360 752-9571 FAX: 360 752-9573
P.O. NUMBER:	E-MAIL:
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 7 6ft	4/19/07	9:00	soil			X	X	X	X					X	X		X				
2. Trench 8 8.5 ft	4/19/07	10:15	soil			X	X	X	X												
3. Trench 9 4ft	4/19/07	10:40	soil			X	X	X	X												
4. Trench 10 1ft	4/19/07	10:50	soil			X	X	X	X												
5. Trench 10 7ft	4/19/07	11:10	soil			X	X	X	X						X						
6. Trench 11 8ft	4/19/07	11:35	soil			X	X	X	X												
7. Trench 12 1ft	4/19/07	11:50	soil			X	X	X	X												
8. Surface Sample 1	4/19/07	1:30	soil			X	X	X	X						X		X				
9. Trench 14 1ft	4/19/07	1:50	soil			X	X	X	X												
10. Trench 15 8ft	4/19/07	2:15	soil			X	X	X	X												

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 4-19-07 16:00

Received By:

2. Relinquished By:

Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis

5 Standard | 3 | 1 | SAME DAY

OTHER:

Specify:

* *Turnaround request less than standard may incur Rush Charges*

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
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Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/23/07 Page 1 Of 1

PROJECT ID:	COB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	PO Box 2715
	Bellingham, WA 98227
PHONE:	360 752-9571 FAX: 360 752 9573
P.O. NUMBER:	E-MAIL:
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☑ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☑ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 19 Water	4/23/07	8:55	water			X	X	X	X								X				4	
2. Surface Sample 2	4/23/07	11:20	soil			X	X	X	X												2	
3. Surface Sample 3	4/23/07	11:30	soil			X	X	X	X								X				2	
4. Trench 26 0.5ft	4/23/07	11:50	soil			X	X	X	X								X				2	
5. Trench 29 2ft	4/23/07	2:00	soil			X	X	X	X								X				2	
6. Trench 29 8ft	4/23/07	2:25	soil			X	X	X	X												2	
7. Trench 30 1ft	4/23/07	3:00	soil			X	X	X	X												2	
8. Trench 23-0.5ft	4/23/07	10:45	Soil			X	X	X	X												2	
9.																						
10.																						

CLIENT COPY

SPECIAL INSTRUCTIONS Please filter and preserve metal samples upon receipt

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 4/23/07 16:00

Received By: _____

2. Relinquished By: _____

Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

* Turnaround request less than standard may incur Rush Charges

APPENDIX C

Original Laboratory Water Sample Data

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE
CLIENT SAMPLE ID: 4/17/2007 13:20 TRENCH 1 WATER
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	4/19/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	4/19/2007	DLC
Benzene	EPA-8021	ND(<1)	UG/L	4/19/2007	DLC
Toluene	EPA-8021	ND(<1)	UG/L	4/19/2007	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	4/19/2007	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	4/19/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	230	UG/L	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<290)	UG/L	4/20/2007	EBS
Antimony (Dissolved)	EPA-6010	ND(<20)	UG/L	4/19/2007	ICP
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	4/25/2007	CEO
Beryllium (Dissolved)	EPA-6010	8	UG/L	4/19/2007	ICP
Cadmium (Dissolved)	EPA-6010	9	UG/L	4/19/2007	ICP
Chromium (Dissolved)	EPA-6010	14	UG/L	4/19/2007	ICP
Copper (Dissolved)	EPA-6010	17	UG/L	4/19/2007	ICP
Lead (Dissolved)	EPA-7421	ND(<3)	UG/L	4/19/2007	CEO
Mercury (Dissolved)	EPA-7470	ND(<0.2)	UG/L	4/24/2007	ICP
Nickel (Dissolved)	EPA-6010	ND(<20)	UG/L	4/19/2007	ICP
Selenium (Dissolved)	EPA-6010	ND(<40)	UG/L	4/19/2007	ICP
Silver (Dissolved)	EPA-6010	ND(<30)	UG/L	4/19/2007	ICP
Thallium (Dissolved)	EPA-7841	ND(<2)	UG/L	4/27/2007	CEO
Zinc (Dissolved)	EPA-6010	12	UG/L	4/19/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL FUEL

OIL RANGE REPORTING LIMIT RAISED DUE TO LOW SAMPLE VOLUME

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/2/2007
CCIL JOB #: 0704093
DATE RECEIVED: 4/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE AVE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704093-01	NWTPH-GX	TFT	99
0704093-01	EPA-8021	TFT	102
0704093-01	NWTPH-DX W/CLEANUP	C25	107
0704093-02	NWTPH-GX	TFT	85
0704093-02	EPA-8021	TFT	77
0704093-02	NWTPH-DX	C25	106
0704093-03	NWTPH-GX	TFT	50
0704093-03	EPA-8021	TFT	**
0704093-03	NWTPH-DX	C25	*
0704093-03	EPA-8260	1,2-Dichloroethane-d4	**
0704093-03	EPA-8260	Toluene-d8	103
0704093-03	EPA-8260	4-Bromofluorobenzene	118
0704093-03	EPA-8270 SIM	Terphenyl-d14	130
0704093-03	EPA-8270	2-Fluorophenol	*
0704093-03	EPA-8270	Phenol-d6	*
0704093-03	EPA-8270	Nitrobenzene-d5	*
0704093-03	EPA-8270	2-Fluorobiphenyl	*
0704093-03	EPA-8270	2,4,6-Tribromophenol	*
0704093-03	EPA-8270	Terphenyl-d14	*
0704093-04	NWTPH-GX	TFT	58
0704093-04	EPA-8021	TFT	62
0704093-04	NWTPH-DX	C25	82
0704093-05	NWTPH-GX	TFT	*
0704093-05	EPA-8021	TFT	*
0704093-05	NWTPH-DX	C25	*
0704093-06	NWTPH-GX	TFT	52
0704093-06	EPA-8021	TFT	**
0704093-06	NWTPH-DX	C25	97
0704093-06	EPA-8260	1,2-Dichloroethane-d4	109
0704093-06	EPA-8260	Toluene-d8	100
0704093-06	EPA-8260	4-Bromofluorobenzene	**
0704093-06	EPA-8270 SIM	Terphenyl-d14	85
0704093-06	EPA-8270	2-Fluorophenol	64
0704093-06	EPA-8270	Phenol-d6	81
0704093-06	EPA-8270	Nitrobenzene-d5	102
0704093-06	EPA-8270	2-Fluorobiphenyl	62
0704093-06	EPA-8270	2,4,6-Tribromophenol	59
0704093-06	EPA-8270	Terphenyl-d14	72

* SURROGATE DILUTED OUT OF CALIBRATION RANGE

** SURROGATE OUTSIDE OF CONTROL LIMITS DUE TO MATRIX EFFECT

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE
CLIENT SAMPLE ID: 4/18/2007 9:15 TRENCH 4 WATER
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	4/20/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	4/20/2007	DLC
Benzene	EPA-8021	ND(<1)	UG/L	4/20/2007	DLC
Toluene	EPA-8021	ND(<1)	UG/L	4/20/2007	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	4/20/2007	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	4/20/2007	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	4/20/2007	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	4/20/2007	EBS
Antimony (Dissolved)	EPA-6010	28	UG/L	4/20/2007	ICP
Arsenic (Dissolved)	EPA-7060	ND(<4)	UG/L	4/26/2007	CEO
Beryllium (Dissolved)	EPA-6010	6	UG/L	4/20/2007	ICP
Cadmium (Dissolved)	EPA-6010	7	UG/L	4/20/2007	ICP
Chromium (Dissolved)	EPA-6010	9	UG/L	4/20/2007	ICP
Copper (Dissolved)	EPA-6010	30	UG/L	4/20/2007	ICP
Lead (Dissolved)	EPA-7421	ND(<3)	UG/L	4/24/2007	CEO
Mercury (Dissolved)	EPA-7470	ND(<0.2)	UG/L	4/24/2007	ICP
Nickel (Dissolved)	EPA-6010	ND(<20)	UG/L	4/20/2007	ICP
Selenium (Dissolved)	EPA-6010	ND(<40)	UG/L	4/20/2007	ICP
Silver (Dissolved)	EPA-6010	ND(<30)	UG/L	4/20/2007	ICP
Thallium (Dissolved)	EPA-7841	ND(<2)	UG/L	4/27/2007	CEO
Zinc (Dissolved)	EPA-6010	140	UG/L	4/20/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS
*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/4/2007
CCIL JOB #: 0704103
DATE RECEIVED: 4/19/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB:210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704103-01	NWTPH-GX	TFT	68
0704103-01	EPA-8021	TFT	72
0704103-01	NWTPH-DX	C25	99
0704103-02	NWTPH-GX	TFT	102
0704103-02	EPA-8021	TFT	102
0704103-02	NWTPH-DX W/ CLEANUP	C25	108
0704103-03	NWTPH-GX	TFT	52
0704103-03	EPA-8021	TFT	*
0704103-03	NWTPH-DX W/ CLEANUP	C25	121
0704103-04	NWTPH-GX	TFT	54
0704103-04	EPA-8021	TFT	*
0704103-04	NWTPH-DX	C25	111
0704103-04	EPA-8260	1,2-Dichloroethane-d4	*
0704103-04	EPA-8260	Toluene-d8	*
0704103-04	EPA-8260	4-Bromofluorobenzene	*
0704103-04	EPA-8270 SIM	Terphenyl-d14	85
0704103-04	EPA-8270	2-Fluorophenol	59
0704103-04	EPA-8270	Phenol-d6	78
0704103-04	EPA-8270	Nitrobenzene-d5	101
0704103-04	EPA-8270	2-Fluorobiphenyl	58
0704103-04	EPA-8270	2,4,6-Tribromophenol	58
0704103-04	EPA-8270	Terphenyl-d14	74
0704103-05	EPA-8270 SIM	Terphenyl-d14	93
0704103-05	EPA-8270	2-Fluorophenol	98
0704103-05	EPA-8270	Phenol-d6	115
0704103-05	EPA-8270	Nitrobenzene-d5	160**
0704103-05	EPA-8270	2-Fluorobiphenyl	91
0704103-05	EPA-8270	2,4,6-Tribromophenol	148**
0704103-05	EPA-8270	Terphenyl-d14	116
0704103-06	NWTPH-GX	TFT	70
0704103-06	EPA-8021	TFT	71
0704103-06	NWTPH-DX	C25	101

* SURROGATES OUTSIDE OF QC LIMITS DUE TO MATRIX EFFECT.

** SURROGATES OUTSIDE OF CONTROL LIMITS WITH A HIGH BIAS. SAMPLE WAS NON-DETECT FOR ALL TARGET ANALYTES. NO CORRECTIVE ACTION TAKEN.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE
CLIENT SAMPLE ID: 4/23/2007 8:55 TRENCH 19 WATER
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	4/25/2007	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	4/25/2007	DLC
Benzene	EPA-8021	ND(<1)	UG/L	4/25/2007	DLC
Toluene	EPA-8021	ND(<1)	UG/L	4/25/2007	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	4/25/2007	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	4/25/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	170	UG/L	4/27/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	4/27/2007	EBS
Antimony (Dissolved)	EPA-6010	24	UG/L	4/26/2007	ICP
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	4/26/2007	CEO
Beryllium (Dissolved)	EPA-6010	8	UG/L	4/26/2007	ICP
Cadmium (Dissolved)	EPA-6010	8	UG/L	4/26/2007	ICP
Chromium (Dissolved)	EPA-6010	19	UG/L	4/26/2007	ICP
Copper (Dissolved)	EPA-6010	19	UG/L	4/26/2007	ICP
Lead (Dissolved)	EPA-7421	ND(<3)	UG/L	4/26/2007	CEO
Mercury (Dissolved)	EPA-7470	ND(<0.2)	UG/L	5/1/2007	CEO
Nickel (Dissolved)	EPA-6010	ND(<20)	UG/L	4/26/2007	ICP
Selenium (Dissolved)	EPA-6010	ND(<40)	UG/L	4/26/2007	ICP
Silver (Dissolved)	EPA-6010	71	UG/L	4/26/2007	ICP
Thallium (Dissolved)	EPA-6010	ND(<2)	UG/L	4/27/2007	CEO
Zinc (Dissolved)	EPA-6010	100	UG/L	4/26/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS UNIDENTIFIED LATE DIESL RANGE PRODUCT

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 5/18/2007
CCIL JOB #: 0704127
DATE RECEIVED: 4/24/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN
CLIENT PROJECT ID: COB: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704127-01	NWTPH-GX	TFT	98
0704127-01	EPA-8021	TFT	93
0704127-01	NWTPH-DX W/CLEANUP	C25	95
0704127-02	NWTPH-GX	TFT	*
0704127-02	EPA-8021	TFT	*
0704127-02	NWTPH-DX	C25	*
0704127-03	NWTPH-GX	TFT	85
0704127-03	EPA-8021	TFT	68
0704127-03	NWTPH-DX W/CLEANUP	C25	*
0704127-04	NWTPH-GX	TFT	75
0704127-04	EPA-8021	TFT	63
0704127-04	NWTPH-DX	C25	115
0704127-05	NWTPH-GX	TFT	82
0704127-05	EPA-8021	TFT	78
0704127-05	NWTPH-DX	C25	111
0704127-06	NWTPH-GX	TFT	81
0704127-06	EPA-8021	TFT	68
0704127-06	NWTPH-DX	C25	112
0704127-07	NWTPH-GX	TFT	77
0704127-07	EPA-8021	TFT	75
0704127-07	NWTPH-DX	C25	110
0704127-08	NWTPH-GX	TFT	74
0704127-08	EPA-8021	TFT	61
0704127-08	NWTPH-DX	C25	97

* SURROGATE DILUTED OUT OF CALIBRATION RANGE

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/17/07 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie Ave
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: PO Box 2715
Bellingham, WA 98227
PHONE: 360 752-9571 FAX: 360 752-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 1 Water	4/17/07	1:20	water			X	X	X	X								X					
2. Trench 1 6ft		1:30	soil			X	X	X	X								X					
3. Trench 2 2.5ft		2:15	soil			X	X	X	X		X			X	X		X					
4. Trench 2 11ft		2:30	soil			X	X	X	X													
5. Trench 3 5ft		2:50	soil			X	X	X	X								X					
6. Trench 3 4ft		3:00	soil			X	X	X	X		X			X	X		X					
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS Please filter and preserve metals/water sample at lab

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 4/17/07 3:50
   Received By:
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
☒ 10 Standard ☐ 5 ☐ 3 ☐ 2 ☐ 1 ☐ SAME DAY

Fuels & Hydrocarbon Analysis
☒ 5 Standard ☐ 3 ☐ 1 ☐ SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/18/07 Page 1 Of

PROJECT ID: RAB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Heidi Castleman
ADDRESS: PO Box 2715
Bellingham WA 98227
PHONE: 360 752-9571 FAX: 360 753-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☑ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☑	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☑ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 4 - 4.5ft	4/18/07	9:00	soil			X	X	X	X												2	
2. Trench 4 Water		9:15	water			X	X	X	X								X				4	
3. Trench 4 6ft - N		9:35	soil			X	X	X	X												2	
4. Trench 5 5ft		10:30	soil			X	X	X	X		X			X	X		X				3	
5. Trench 6 3ft		2:05	soil											X	X		X				1	
6. Trench 6 8ft		2:50	soil			X	X	X	X												2	
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS Please filter and preserve water sample (metals) upon receipt

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 4-18-07 3:45p
   Received By:
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis
5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/19/07 Page 1 Of

PROJECT ID:	COB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	PO Box 2715
	Bellingham, WA 98227
PHONE:	360 752-9571 FAX: 360 752-9573
P.O. NUMBER:	E-MAIL:
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

CLIENT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 7 6ft	4/19/07	9:00	soil			X	X	X	X					X	X		X				
2. Trench 8 8.5 ft	4/19/07	10:15	soil			X	X	X	X												
3. Trench 9 4ft	4/19/07	10:40	soil			X	X	X	X												
4. Trench 10 1ft	4/19/07	10:50	soil			X	X	X	X												
5. Trench 10 7ft	4/19/07	11:10	soil			X	X	X	X						X						
6. Trench 11 8ft	4/19/07	11:35	soil			X	X	X	X												
7. Trench 12 1ft	4/19/07	11:50	soil			X	X	X	X												
8. Surface Sample 1	4/19/07	1:30	soil			X	X	X	X						X		X				
9. Trench 14 1ft	4/19/07	1:50	soil			X	X	X	X												
10. Trench 15 8ft	4/19/07	2:15	soil			X	X	X	X												

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 4-19-07 16:00

Received By:

2. Relinquished By:

Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis

5 Standard | 3 | 1 | SAME DAY

OTHER:

Specify:

* *Turnaround request less than standard may incur Rush Charges*

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 4/23/07 Page 1 Of 1

PROJECT ID:	COB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	PO Box 2715
	Bellingham, WA 98227
PHONE:	360 752-9571 FAX: 360 752 9573
P.O. NUMBER:	E-MAIL:
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☑ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☑ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. Trench 19 Water	4/23/07	8:55	water			X	X	X	X								X				4	
2. Surface Sample 2	4/23/07	11:20	soil			X	X	X	X												2	
3. Surface Sample 3	4/23/07	11:30	soil			X	X	X	X								X				2	
4. Trench 26 0.5ft	4/23/07	11:50	soil			X	X	X	X								X				2	
5. Trench 29 2ft	4/23/07	2:00	soil			X	X	X	X								X				2	
6. Trench 29 8ft	4/23/07	2:25	soil			X	X	X	X												2	
7. Trench 30 1ft	4/23/07	3:00	soil			X	X	X	X												2	
8. Trench 23-0.5ft	4/23/07	10:45	Soil			X	X	X	X												2	
9.																						
10.																						

CLIENT COPY

SPECIAL INSTRUCTIONS Please filter and preserve metal samples upon receipt

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 4/23/07 16:00

Received By: _____

2. Relinquished By: _____

Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

* Turnaround request less than standard may incur Rush Charges

November 1, 2007

Mr. Geoff Smyth
City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

RE: 210 McKenzie Avenue – Surface Soil Remediation and Disposal Action

Mr. Smyth:

Whatcom Environmental Services (WES) has completed the documentation of a contaminated surface soil removal action undertaken at the property located at 210 McKenzie Avenue in Bellingham, Washington on July 2, 2007. The site location is shown on Figure 1. The contaminated surface soil was discovered during a site investigation conducted by WES at the property in April, 2007. The contaminated surface soil was located on the western side of the property (WES, 2007) in an area used as a private boat storage and maintenance yard, as shown on Figure 2. Approximately 48 tons of contaminated soil were excavated, temporarily stockpiled onsite, and shipped to a licensed soil treatment and disposal facility.

Confirmation soil samples collected after excavation activities were completed did not contain concentrations of contaminants above applicable cleanup standards.

One soil sample collected to characterize the sand blasting grit found in several locations at the property was found to contain concentrations of cadmium above applicable state cleanup standards.

Site History

WES conducted a Phase I Environmental Site Assessment (ESA) at the property in May, 2006. Historical research conducted as part of the Phase I ESA determined that the subject property had been developed as an industrial site since at least the early 1900's. Over time, the site was used as a brick manufacturing facility, a foundry, a chain manufacturing facility, several boat manufacturing facilities, a warehousing and general storage facility, as an auto repair shop, and as a machine shop (WES, 2006).

Release Discovery

Surficial staining was observed by WES during a site investigation conducted in April, 2007. The staining was located on the western side of the property in an area used as a private

boat storage and maintenance yard. WES collected three surface soil samples (Surface Sample-1 through Surface Sample-3) from the largest and most visibly stained areas (WES, 2007), as seen on Figure 2. The soil samples were sent to CCI Analytical Laboratory in Everett, Washington for analysis. CCI Lab is accredited by the Washington Department of Ecology. Laboratory analytical data confirmed that the stained areas contained concentrations of diesel and lube oil range total petroleum hydrocarbons (TPH), cadmium, and/or carcinogenic polycyclic aromatic hydrocarbons (cPAHs) above the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels (Ecology, 2001). A summary of the surface sample laboratory analytical results is provided as Table 1.

PCS Removal Action

On July 2, 2007, at the request of Mr. Geoff Smyth of the City of Bellingham, Whatcom Environmental Services returned to the site to assist with the remediation of the contaminated surface soil. A City of Bellingham utility crew was onsite with an excavator to conduct the remedial activities. A temporary stockpile was built on the eastern side of the property to place excavated soil prior to offsite disposal. Approximately 70 cubic yards of contaminated soil was excavated and placed in the stockpile.

Surface soils in the area of cadmium and cPAH contamination, near Surface Sample-1, appeared to have a significant amount of black sand blasting grit scattered over a large area. The area of sand blasting grit was scraped to an approximate depth of 0.5 feet. The final excavated area measured approximately 35 feet by 65 feet. No field screening was conducted in this area due to the nature of the contamination.

Sheen tests were conducted to field screen the excavated soil from the two areas where TPH contamination was confirmed, i.e. the areas surrounding Surface Sample-2 and Surface Sample-3. Soils in those two areas exhibited moderate to heavy sheens prior to excavation. A 10 foot by 10 foot area was excavated surrounding each location. The excavation near Surface Sample-2 was excavated to an approximate depth of 1.5 feet below ground surface (bgs). The excavation near Surface Sample-3 was excavated to an approximate depth of 3 feet bgs.

The depth to groundwater is unknown at the site. Groundwater was not encountered in any of the remedial excavations.

Soil Sampling

One composite and two discrete clean confirmation soil samples were collected after all excavation activities had been completed. A composite sample from three sub-locations was collected from the excavation floor near Surface Sample-1. A single, discrete floor sample was collected from each of the other two excavations. Soil was placed in sample containers provided by the lab, cooled with ice, and shipped to CCI Analytical in Everett, Washington. Samples were named CS-1 through CS-3.

One other surface soil sample was collected to characterize the sand blasting grit. Soil sample GRIT was collected from near the center of the subject property, approximately 80 feet southwest of the large, eastern-most building. A significant amount of sand blasting grit was located in the area where the grit sample was collected.

Soil samples CS-1 through CS-3 were collected to document the contaminant concentrations remaining in soil at the remedial locations after the completion of the excavation work. Based on the soil sample laboratory analytical results from the Site Investigation (WES, 2007) presented in Table 1, soil samples were analyzed for diesel and lube-oil range TPH, priority pollutant metals, and cPAHs.

The confirmation soil sample locations and descriptions are included in Table 2, and the laboratory analytical results are summarized in Table 3. Soil samples CS-1, CS-2, and CS-3 did not contain diesel or lube-oil range TPH, metals, or cPAH at concentrations that exceeded the MTCA Method A target cleanup levels. Soil sample CS-3 contained cadmium at a concentration of 2 mg/kg, which is the MTCA Method A cleanup standard for that metal. The original analytical data are included in Appendix A.

Soil sample GRIT contained cadmium at a concentration of 9.8 mg/kg, which is above the MTCA Method A cleanup level of 2 mg/kg.

PCS Disposal

Stockpiled PCS was removed from the site on October 16, 2007. Approximately 48 tons of soil were shipped to Rinker Materials of Everett, Washington for treatment via thermal desorption and disposal. Rinker Materials is a licensed PCS treatment and disposal facility. A Certificate of Disposal is provided in Appendix B.

Conclusions

A contaminated surface soil removal action was undertaken on July 2, 2007 at the property located at 210 McKenzie Avenue in Bellingham, Washington. The contaminated surface soil was discovered during a site investigation conducted by WES at the property in April, 2007. The contaminated surface soil was located on the western side of the property in an area used as a private boat storage and maintenance yard, as shown on Figure 2. Approximately 70 cubic yards of contaminated soil were excavated hauled offsite to a permitted soil treatment and disposal facility.

Three clean confirmation soil samples were collected from the excavations when field screening or visual indicators showed that all the contaminated surface soil had been removed. Soil samples CS-1 and CS-2 did not contain diesel or lube-oil range TPH, metals, and/or cPAHs at concentrations that exceeded the MTCA Method A target cleanup levels. Soil Sample CS-3 did not contain concentrations of diesel or lube-oil range TPH, metals, or cPAHs above MTCA Method A cleanup levels, but did contain a concentration of cadmium at a level equal to the MTCA Method A cleanup standard.

One surface soil sample was collected to characterize the black sand blasting grit observed onsite in several locations. The GRIT sample contained concentrations of cadmium that exceeded MTCA Method A cleanup standards.

Stockpiled PCS was removed from the site on October 16, 2007. Approximately 48 tons of soil were shipped to Rinker Materials of Everett, Washington for treatment and disposal via thermal desorption.

Limitations

This report has been prepared for use by the City of Bellingham. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

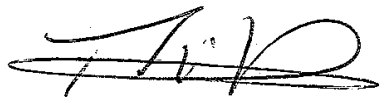
No remedial action can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this remedial action by WES is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination on the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the remedial action was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

The WES staff that conducted the investigation meet the requirements of environmental professional as outlined in ASTM E 1527-05. The liability of WES and its employees is limited to the City of Bellingham only. There is no obligation or liability to any third party.

We appreciate the opportunity to assist the City of Bellingham with this project. If you have any questions about the information contained in this report, I can be reached at (360) 752-9571.

Sincerely,



Thomas A. Davis
Project Manager, Whatcom Environmental Services

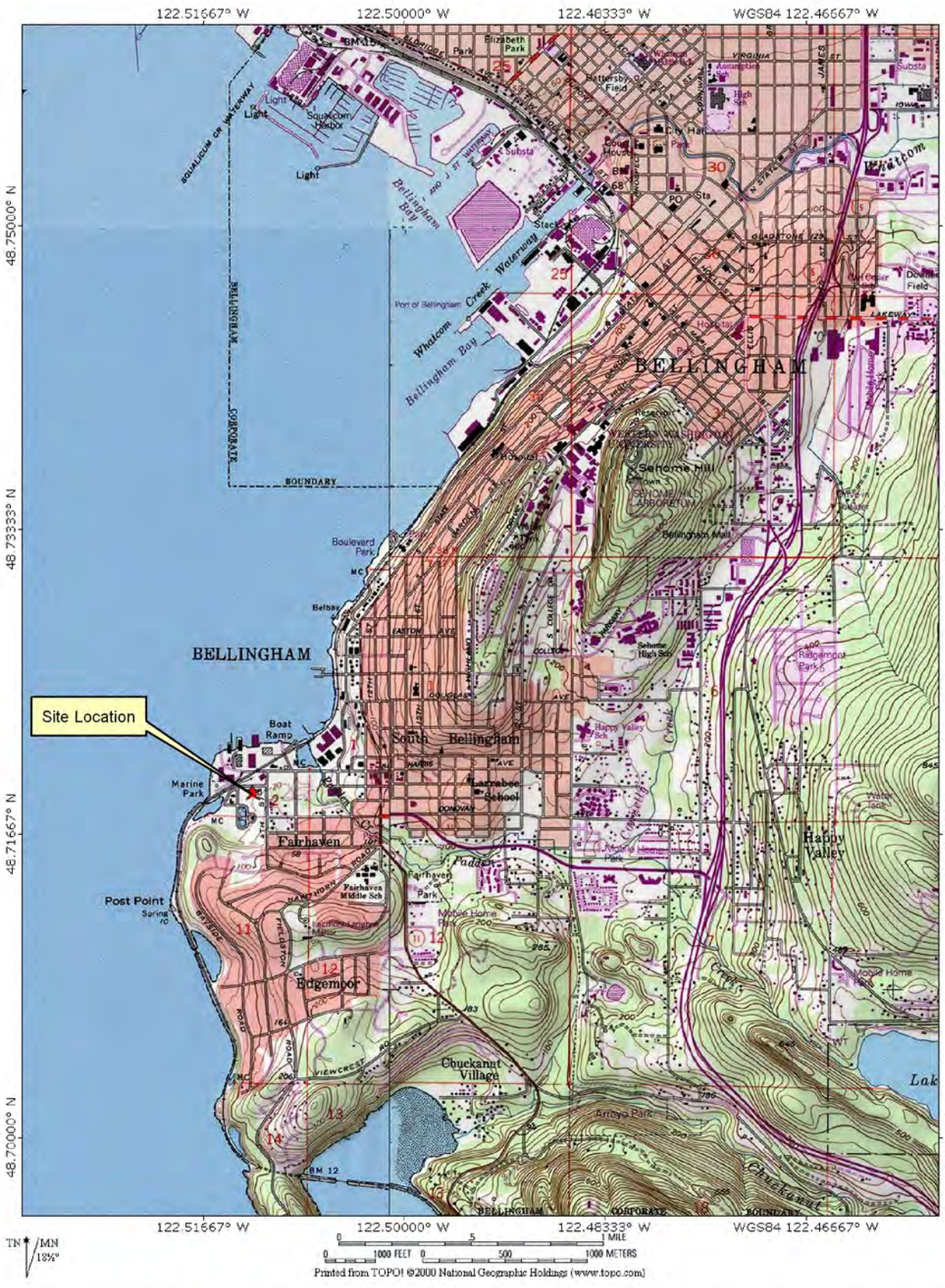
TAD:tad
Attachments

References

Washington State Department of Ecology (Ecology). 2001. Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC. Publication No. 94-06. February 12, 2001.

Whatcom Environmental Services. June 26, 2006. Phase I Environmental Site Assessment Homeport Properties Inc. 210 McKenzie Avenue Bellingham, Washington.

Whatcom Environmental Services. June 25, 2007. Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington.



Prepared for:

City of Bellingham

Prepared by:

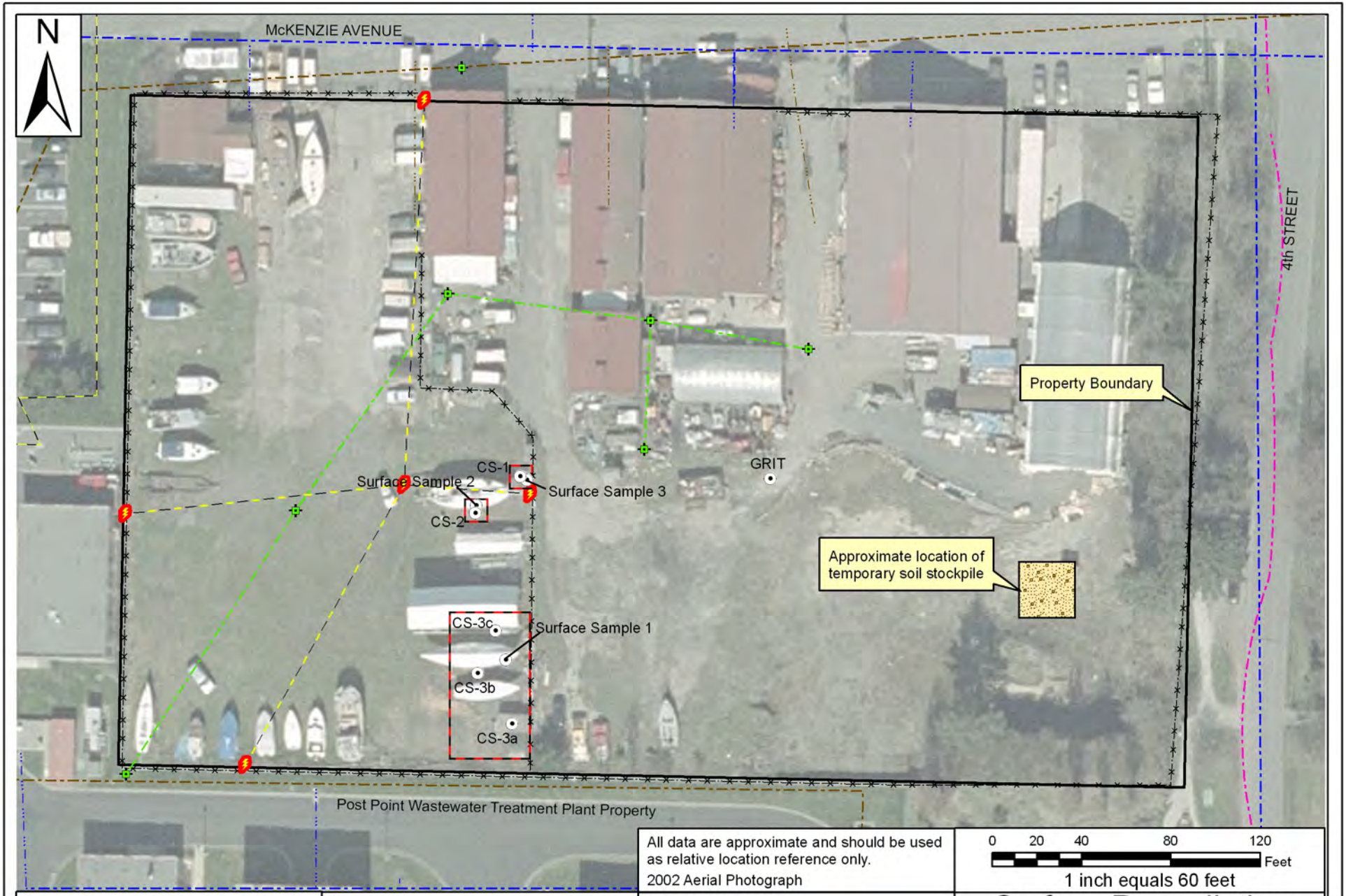
WES
Whatcom Environmental Services

Site Location Map

McKenzie UST

4/4/07

Figure 1



All data are approximate and should be used as relative location reference only.

2002 Aerial Photograph

0 20 40 80 120 Feet

1 inch equals 60 feet

Surface Soil Sample
Surface Remediation Excavations
Catch Basins
Fenceline
Property Storm Sewer
Power Posts
Property Electrical Lines
Fiber Optic Line
Sanitary Sewer Line
City Storm Sewer Line
Water Line

Prepared for:

City of Bellingham

Prepared by:

WES
Whatcom Environmental Services

Surface Remediation and Sample Locations

210 McKenzie Remediation

7/11/07

Figure 2

Table 1. Soil Sample Analytical Data - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Surface Sample 1	Surface Sample 2	Surface Sample 3	Method A Cleanup Levels
Date	4/19/07	4/23/07	4/23/07	
Gasoline Range (NWTPH-Gx) (mg/kg)	4	ND(<30)	ND(6)	100/30*
Diesel Range (NWTPH-Dx) (mg/kg)	ND(<25)	**10,000**	ND(<380)	2,000
Lube Oil Range (NWTPH-Dx) (mg/kg)	90	ND(<500)	**24,000**	2,000
EPA 8021 Method (mg/kg)				
Benzene	ND(<0.03)	ND(<0.3)	ND(<0.03)	0.03
Toluene	ND(<0.05)	ND(<0.5)	ND(<0.05)	7
Ethylbenzene	ND(<0.05)	ND(<0.5)	ND(<0.05)	6
Xylenes	0.19	2.9	ND(<0.2)	9
MTBE	ND(<0.1)	ND(<10)	ND(<0.1)	0.1
Metals - EPA 6000/7000 Series Methods				
Antimony	ND(<3.0)	NA	ND(<3.0)	
Arsenic	ND(<5.0)	NA	ND(<5.0)	20
Beryllium	ND(<1.0)	NA	ND(<1.0)	
Cadmium	**19**	NA	**3**	2
Chromium	ND(<1.0)	NA	24	2,000
Copper	2,200	NA	510	
Lead	52	NA	71	250
Mercury	ND(<0.02)	NA	1.1	2
Nickel	14	NA	39	
Selenium	ND(<5.0)	NA	ND(<5.0)	
Silver	ND(<5.0)	NA	ND(<5.0)	
Thallium	ND(<10)	NA	ND(<10)	
Zinc	4,300	NA	340	
EPA 8270 SIM Method (mg/kg)				
Naphthalene	0.07	NA	NA	
1-Methylnaphthalene	0.14	NA	NA	
2-Methylnaphthalene	0.13	NA	NA	
Total Naphthalenes	0.34	NA	NA	5**
Acenaphthylene	0.09	NA	NA	
Acenaphthene	0.18	NA	NA	
Flourene	0.06	NA	NA	
Phenanthrene	1.3	NA	NA	
Anthracene	0.15	NA	NA	
Fluoranthene	2.2	NA	NA	
Pyrene	2.6	NA	NA	
Benzo[A]Anthracene	1.2	NA	NA	
Chrysene	1.5	NA	NA	
Benzo[B]Fluoranthene	1.6	NA	NA	
Benzo[K]Fluoranthene	1	NA	NA	
Benzo(A)Pyrene	0.86	NA	NA	

Table 1. Soil Sample Analytical Data - 210 McKenzie Avenue, Bellingham, WA

Sample ID	**Surface Sample 1**	**Surface Sample 2**	**Surface Sample 3**	**Method A Cleanup Levels**
Date	4/19/07	4/23/07	4/23/07	
Indeno[1,2,3-Cd]Pyrene	0.8	NA	NA	
Dibenz[A,H]Anthracene	0.37	NA	NA	
Benzo[G,H,I]Perylene	0.77	NA	NA	
cPAH Total TEC***	**1.37**			0.1

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)
BOLD indicates the sample fails to meet MTCA Method A cleanup standards

NA - indicates sample not analyzed for the specified analyte

* - Cleanup level dependent on benzene concentration

** - Cleanup level for sum of Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene

*** - Toxic equivalent concentrations (TEC) for carcinogenic polyaromatic hydrocarbons (cPAHs) based on methodology in WAC 173-340-708(8)(e)

Table 2. Soil Sample Descriptions - 210 McKenzie Avenue, Bellingham, WA

Sample ID	Date	Depth (ft bgs)	Location and Description	PID	Sheen Test*
CS-1	7/2/07	3.0	Center of excavation floor. Over-excavated Surface Sample-3. Gravelly sand, brown, firm, moist	NA	VSS
CS-2	7/2/07	2.0	Center of excavation floor. Over-excavated Surface Sample-2. Fine sand with gravel, brown, firm, moist	NA	SS
CS-3	7/2/07	0.5	Composite sample from 3 locations. Over-excavated Surface Sample-1. Very gravelly sand, brown, loose, moist to dry	NA	VSS
GRIT	7/2/07	0.1	Collected approx. 80 feet SW of large eastern-most building. Medium to fine sand size particles, black, loose, dry	NA	NA

NA - indicates that the sample was not analyzed for the particulat test

* Sheen Test: NS = No Sheen, VSS = Very Slight Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

Table 3. Soil Sample Analytical Data - 210 McKenzie Avenue, Bellingham, WA

Sample ID	CS-1	CS-2	CS-3	GRIT	Method A Cleanup Levels
Date	7/2/07	7/2/07	7/2/07	7/2/07	
Total Pertoleum Hydrocarbons - NWTPH-Dx					
Diesel Range (NWTPH-Dx) (mg/kg)	ND(<25)	56	ND(<25)	ND(<25)	2,000
Lube Oil Range (NWTPH-Dx) (mg/kg)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	2,000
Metals - EPA 6000/7000 Series Methods					
Antimony	ND(<3)	ND(<3)	ND(<3)	ND(<3)	
Arsenic	ND(<5)	ND(<5)	ND(<5)	ND(<5)	20
Beryllium	ND(<1)	ND(<1)	ND(<1)	ND(<1)	
Cadmium	ND(<1)	ND(<1)	2	**9.8**	2
Chromium	32	31	11	14	2,000
Copper	24	30	160	2600	
Lead	ND(<5)	5.1	ND(<5)	15	250
Mercury	0.04	0.03	0.02	0.04	2
Nickel	50	45	41	29	
Selenium	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Silver	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	1700	81	250	300	
cPAHs - EPA 8270 SIM Method (mg/kg)					
Benzo[A]Anthracene	ND(<0.02)	ND(<0.02)	0.05	ND(<0.02)	
Chrysene	ND(<0.02)	ND(<0.02)	0.08	0.02	
Benzo[B]Fluoranthene	ND(<0.02)	ND(<0.02)	0.08	ND(<0.02)	
Benzo[K]Fluoranthene	ND(<0.02)	ND(<0.02)	0.06	ND(<0.02)	
Benzo(A)Pyrene	ND(<0.02)	ND(<0.02)	0.04	ND(<0.02)	
Indeno[1,2,3-Cd]Pyrene	ND(<0.02)	ND(<0.02)	0.04	ND(<0.02)	
Dibenz[A,H]Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
cPAH Total TEC*	0.00	0.00	0.06	0.0002	0.1

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)

BOLD indicates the sample fails to meet MTCA Method A cleanup standards

NA - indicates sample not analyzed for the specified analyte

* - Toxic equivalent concentrations (TEC) for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) based on methodology in WAC 173-340-708(8)(e)

APPENDIX A

Original Laboratory Soil Sample Data

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/11/2007
CCIL JOB #: 0707011
DATE RECEIVED: 7/3/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 7/2/2007 8:45 GRIT
CCIL SAMPLE #: -01

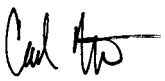
DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	7/5/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	7/5/2007	EBS
Benzo(a)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Chrysene	EPA-8270 SIM	0.02	MG/KG	7/9/2007	RAL
Benzo(b)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(k)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(a)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Indeno(1,2,3-cd)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Dibenz(a,h)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Antimony	EPA-6010	ND(<3.0)	MG/KG	7/5/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Cadmium	EPA-6010	9.8	MG/KG	7/5/2007	ICP
Chromium	EPA-6010	14	MG/KG	7/5/2007	ICP
Copper	EPA-6010	2600	MG/KG	7/5/2007	ICP
Lead	EPA-6010	15	MG/KG	7/5/2007	ICP
Mercury	EPA-7471	0.04	MG/KG	7/6/2007	CEO
Nickel	EPA-6010	29	MG/KG	7/5/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	7/5/2007	ICP
Zinc	EPA-6010	300	MG/KG	7/5/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:



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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/11/2007
CCIL JOB #: 0707011
DATE RECEIVED: 7/3/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 7/2/2007 11:30 CS-1
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	7/5/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	7/5/2007	EBS
Benzo(a)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(b)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(k)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(a)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Indeno(1,2,3-cd)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Dibenz(a,h)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Antimony	EPA-6010	ND(<3.0)	MG/KG	7/5/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Cadmium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Chromium	EPA-6010	32	MG/KG	7/5/2007	ICP
Copper	EPA-6010	24	MG/KG	7/5/2007	ICP
Lead	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Mercury	EPA-7471	0.04	MG/KG	7/6/2007	CEO
Nickel	EPA-6010	50	MG/KG	7/5/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	7/5/2007	ICP
Zinc	EPA-6010	1700	MG/KG	7/5/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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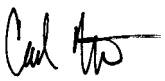

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/11/2007
CCIL JOB #: 0707011
DATE RECEIVED: 7/3/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 7/2/2007 11:42 CS-2
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	56	MG/KG	7/5/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	7/5/2007	EBS
Benzo(a)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(b)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(k)fluoranthene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Benzo(a)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Indeno(1,2,3-cd)pyrene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Dibenz(a,h)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Antimony	EPA-6010	ND(<3.0)	MG/KG	7/5/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Cadmium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Chromium	EPA-6010	31	MG/KG	7/5/2007	ICP
Copper	EPA-6010	30	MG/KG	7/5/2007	ICP
Lead	EPA-6010	5.1	MG/KG	7/5/2007	ICP
Mercury	EPA-7471	0.03	MG/KG	7/6/2007	CEO
Nickel	EPA-6010	45	MG/KG	7/5/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	7/5/2007	ICP
Zinc	EPA-6010	81	MG/KG	7/5/2007	ICP

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY DIESEL FUEL.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/11/2007
CCIL JOB #: 0707011
DATE RECEIVED: 7/3/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 7/2/2007 12:15 CS-3
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<25)	MG/KG	7/5/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<50)	MG/KG	7/5/2007	EBS
Benzo(a)anthracene	EPA-8270 SIM	0.05	MG/KG	7/9/2007	RAL
Chrysene	EPA-8270 SIM	0.08	MG/KG	7/9/2007	RAL
Benzo(b)fluoranthene	EPA-8270 SIM	0.08	MG/KG	7/9/2007	RAL
Benzo(k)fluoranthene	EPA-8270 SIM	0.06	MG/KG	7/9/2007	RAL
Benzo(a)pyrene	EPA-8270 SIM	0.04	MG/KG	7/9/2007	RAL
Indeno(1,2,3-cd)pyrene	EPA-8270 SIM	0.04	MG/KG	7/9/2007	RAL
Dibenz(a,h)anthracene	EPA-8270 SIM	ND(<0.02)	MG/KG	7/9/2007	RAL
Antimony	EPA-6010	ND(<3.0)	MG/KG	7/5/2007	ICP
Arsenic	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Beryllium	EPA-6010	ND(<1.0)	MG/KG	7/5/2007	ICP
Cadmium	EPA-6010	2.0	MG/KG	7/5/2007	ICP
Chromium	EPA-6010	11	MG/KG	7/5/2007	ICP
Copper	EPA-6010	160	MG/KG	7/5/2007	ICP
Lead	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Mercury	EPA-7471	0.02	MG/KG	7/6/2007	CEO
Nickel	EPA-6010	41	MG/KG	7/5/2007	ICP
Selenium	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Silver	EPA-6010	ND(<5.0)	MG/KG	7/5/2007	ICP
Thallium	EPA-6010	ND(<10)	MG/KG	7/5/2007	ICP
Zinc	EPA-6010	250	MG/KG	7/5/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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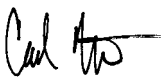

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/11/2007
CCIL JOB #: 0707011
DATE RECEIVED: 7/3/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0707011-01	NWTPH-DX	C25	99
0707011-01	EPA-8270 SIM	Terphenyl-d14	117
0707011-02	NWTPH-DX	C25	89
0707011-02	EPA-8270 SIM	Terphenyl-d14	124
0707011-03	NWTPH-DX	C25	96
0707011-03	EPA-8270 SIM	Terphenyl-d14	129
0707011-04	NWTPH-DX	C25	96
0707011-04	EPA-8270 SIM	Terphenyl-d14	133

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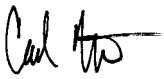

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CCI Analytical Laboratories, Inc.
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 7/2/07 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold and Thom
ADDRESS: 119 N. Commercial #120
Bham WA 98225
PHONE: 360-752-9571 FAX: 360-759-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION: Same
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. GRIT	7/2/07	8:45	S			X									X		X				1	
2. CS-1	"	11:30	S			X									X		X				1	
3. CS-2	"	11:42	S			X									X		X				1	
4. CS-3	"	12:15	S			X									X		X				1	
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

CLIENT COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 7/2/07 15:30
Received By:
2. Relinquished By: WES 7/6/07 14:00
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

APPENDIX B

Rinker Materials Certificate of Disposal

Rinker MATERIALS™

Release of Liability/Certificate of Disposal

WHATCOM ENVIRONMENTAL is released from liability for all petroleum contaminated soil originating from:

210 McKenzie Ave
Bellingham, WA

and transported to:

Rinker Materials, Northwest Division.
6300 Glenwood Ave.
Everett WA 98203

On 10/16/2007

A total of 47.57 tons of petroleum-contaminated soil were transported to the above facility. The material was disposed of in the following manner:

Thermal Desorption/Landfill for Reclamation

Disposal of the contaminated soil was performed in accordance with all applicable federal, state, and local laws and regulations.

Signed: Date: November 30th, 2007

Harry W. Baker

Rinker Materials CO.
Operations Manager
Soil Remediation Division

GROUNDWATER INVESTIGATION DATA REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FACILITY SITE ID #151016)

prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

February 11, 2009

whatcom ENVIRONMENTAL

soil | water | air
compliance consulting

228 East Champion Street, Suite 101, Bellingham, WA 98225
tel 360.752.9571 | **fax** 360.752.9573 | *www.whatcomenvironmental.com*

GROUNDWATER INVESTIGATION
DATA REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FACILITY SITE ID #151016)

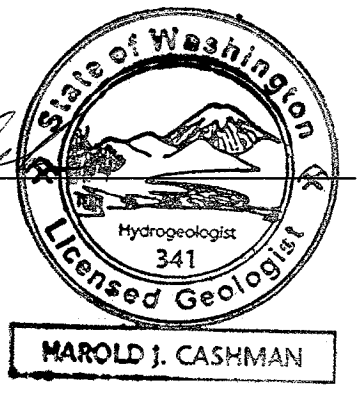
Prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

Prepared by:

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, Washington 98225

February 11, 2009



Harold Cashman
Project Manager

Thomas Davis
QA/QC Reviewer

TABLE OF CONTENTS

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EXECUTIVE SUMMARY iv

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- 2.2 Site Geology 2
- 2.3 Site Hydrogeology 3

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EXECUTIVE SUMMARY

This report describes the subsurface investigation of groundwater conditions at an industrial property located at 210 McKenzie Avenue in the Fairhaven neighborhood of Bellingham, Washington. The site location is shown on Figure 1.

A subsurface soil investigation was conducted at the site in April, 2007. A report documenting the investigation findings titled ***Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington*** was submitted to the Washington Department of Ecology on July 11, 2007 (WES, 2007b). Based on the results of the Initial Site Investigation, a groundwater investigation was initiated at the site.

Six groundwater monitoring wells were installed at the site in July 2007. A site map showing the groundwater monitoring well locations and other important site features is included as Figure 2. Groundwater samples were collected from the monitoring well system for five consecutive quarters - in August 2007, December 2007, March 2008, June 2008, and September 2008. Groundwater samples were collected using a low-flow sample collection method (USEPA, 1998).

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by the petroleum contamination discovered during the Initial Site Investigation. Of all the analytes monitored in the groundwater at the property, arsenic was the only contaminate found at concentrations which exceed the Model Toxics Control Act (MTCA) Method A target cleanup level of 5 ug/L. Arsenic has been detected in two monitoring wells with an average study concentration of 12.8 ug/L in monitoring well MW-2 and 5.8 ug/L in MW-6.

1.0 INTRODUCTION

Whatcom Environmental Services (WES) conducted a groundwater investigation at an industrial property located at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by The City of Bellingham and is located adjacent to the Post Point Waste Water Treatment Plant. The site has been assigned Facility Site ID #151016 by Ecology. The location of subject property is shown on Figure 1.

A Phase I Environmental Site Assessment (ESA) completed in May, 2006 revealed several recognized environmental conditions in connection with the subject property (WES, 2006). A subsurface soil investigation was conducted in response to the findings of the Phase I ESA in April, 2007 (WES, 2007b). During the subsurface soil investigation, perched water was encountered in several of the exploratory trenches excavated at the site, predominantly on the west side of the property. The groundwater investigation described in this report was undertaken in response to the findings of the subsurface soil investigation.

Six groundwater monitoring wells were installed in July, 2007 to characterize groundwater quality at the site. The groundwater monitoring wells were developed using disposable bailers and groundwater samples were collected using a "low-flow" sampling technique. The groundwater monitoring wells were sampled for five consecutive quarters. The monitoring well locations and elevations were surveyed in September, 2007 by a licensed surveyor. Maps of the groundwater surface for each sampling event were prepared based on the survey results.

2.0 SITE DESCRIPTION

The subject property is located at the southwest corner of the intersection of 4th Street and McKenzie Avenue in Bellingham, Washington (Figure 1). The property is located in the southeast quarter of the southeast quarter of Section 2, Township 37 North, Range 2 East. The subject property encompasses approximately 3.3 acres and is zoned Industrial. The layout of the subject property including relevant site features is presented on Figure 2.

2.1 Site Topography and Surrounding Area

The median elevation of the site is approximately 25 feet above mean sea level. The site topography is relatively level. The property is bordered by McKenzie Avenue on the north, by 4th Street on the east, and by the City of Bellingham's Post Point Waste Water Treatment facility on the west and south.

Based on historical information obtained by WES, including personal communication, geotechnical studies, and review of historical aerial photographs, it is suspected that a low area on the west side of the property was filled in the 1960s, near the location of monitoring well MW-3.

2.2 Site Geology

The bedrock under the site is the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

Field evidence obtained from the soil borings indicates that the site is underlain by Bellingham Glaciomarine Drift of the Everson Interstade, which is covered in places by several feet of imported fill material or industrial debris. The Bellingham Glaciomarine Drift consists of moderately sorted to unsorted diamicton with lenses and discontinuous beds of moderately to well-sorted gravel, sand, silt, and clay. Bedding is massive to poorly stratified. Color is blue-gray to olive-gray depending on oxidation state. Thickness ranges to as much as 90 meters. The unit is consistently firm to very hard, depending on moisture content. The unit is

predominantly dry to slightly moist. The unit acts as an aquitard, impeding vertical migration of contaminants.

2.3 Site Hydrogeology

Groundwater was encountered in several of the initial soil investigation's exploratory trench excavations, predominantly on the west side of the property. It is possible that the water encountered is perched water trapped in the coarse fill material above the relatively impermeable diamicton.

Groundwater surface elevations at the site were found to be approximately 14 to 18 feet above mean sea level (msl) in August, 2007 and approximately 15 to 23 feet above msl in March, 2007. The groundwater surface appears to be sloped away from a high point located at the south central portion of the property towards the west/northwest and towards the north/northeast. Additional discussion of the groundwater flow direction is included in Section 5.1.

3.0 SITE HISTORY

A Phase I Environmental Site Assessment (ESA) was performed at the subject property in 2006. Historical research conducted as part of the Phase I ESA determined that the subject property had been developed as an industrial site since at least the early 1900's. Over time, the site was used as a brick manufacturing facility, a foundry, a chain manufacturing facility, several boat manufacturing facilities, a warehousing and general storage facility, as an auto repair shop, and as a machine shop. A summary of historical uses of the property is included below (WES, 2006).

Based on a review of Sanborn Fire Insurance maps, the first date structures are shown on the subject property is 1904. Three structures are shown as part of an industrial ironworks complex. In 1913 the site was used as a brick manufacturer. There were still three structures located on the property at that time, and a large circular kiln was located behind one of the buildings. The 1932 map showed just two structures on the property. The site was listed as a chain forging facility. The map indicates that oil was used as a fuel source in the facility. The 1950 map shows a much larger Bellingham Chain and Forge complex. On the 1932 map, the complex consisted of two structures located between 2nd and 3rd streets. The 1950 map shows a complex of eight structures. Three circular fuel oil tanks are shown south of the office building in the northwest corner of the property. The 1964 map shows the property with several vacant buildings and the chain manufacturer no longer operational. All buildings present in 1950 are still visible in 1964. The two eastern-most structures are used as part of a boat manufacturing business. The three fuel oil tanks near the northwest corner of the parcel are still present in 1964.

Based on review of Polk City Directories at the Bellingham Public Library (WES, 2006), it was determined that from approximately 1962 to the present, the property has been used by several boat manufacturing companies. In 1992, a company called Enerwaste International occupied one of the buildings at the site. Enerwaste built waste incinerators. In 1998, a refrigeration equipment sales company used one of the property structures. In 2003, a company called EcoWaste Solutions Group occupied one of the property buildings. It is unknown whether EcoWaste actually stored any type of waste at the site.

4.0 PREVIOUS INVESTIGATIONS

Previous investigations have been conducted at the site. A brief summary of the previous investigations is provided below.

4.1 Environmental Site Assessment: Phase II (1994)

Soil samples were collected from the site in 1994 to investigate the condition of soil within a former underground storage tank (UST) pit. The work was completed after two 10,000 gallon USTs had been removed from the ground. The work was performed by W.D. Purnell and Associates and was documented in a report titled ***Environmental Site Assessment: Phase II, 206 and 208 McKenzie Avenue, Bellingham Washington*** (Purnell, 1994a). The report concluded that petroleum hydrocarbon products were present at high concentrations in the UST excavation area.

4.2 Onsite Thermal Desorption of Contaminated Soil (1994)

Petroleum contaminated soil excavated from the former UST pit was treated on-site via thermal desorption. The work was performed by W.D. Purnell and Associates and was documented in a report titled ***Final Report, On-Site Thermal Desorption of Contaminated Soil, 206 and 208 McKenzie Avenue, Bellingham Washington*** (Purnell, 1994b). The report concluded that the thermal desorption process was limited in its effectiveness and that petroleum contaminated soil remained in the bottom and sidewalls of the former UST pit.

4.3 Phase I Environmental Site Assessment (2006)

A Phase I Environmental Site Assessment (ESA) was conducted at the property in May, 2006. The Phase I ESA findings were documented in a report titled ***Phase I Environmental Site Assessment, Homeport Properties Inc, 210 McKenzie Avenue, Bellingham, Washington*** (WES, 2006).

The Phase I ESA revealed that the property has been developed as an industrial site since at least the early 1900's. Historical fire insurance maps and city directories provided evidence of past industrial activity on the subject property related to brick manufacturing, chain manufacturing, and boat construction and maintenance. Historical fire insurance maps and aerial photographs provided evidence of three large oil tanks on the subject property. The site reconnaissance revealed evidence of stored drums with unknown contents, lead melting work onsite, sandblasting work onsite, and several potential tank vent pipes associated with several of the buildings. Two aboveground storage tanks and an underground hydraulic lift were observed at the auto repair shop currently operating in one of the structures.

The existence of the three fuel oil tanks in the past was identified as a historical recognized environmental condition. Although the tanks were removed in the past and a petroleum contaminated soil (PCS) cleanup action was conducted onsite using a mobile thermal desorption system, a review of the document describing the remedial action indicates that contaminated soil was left in place in the excavation. Also, when the tanks were removed in 1993, cleanup levels for gasoline-range total petroleum hydrocarbon (TPH) were higher than they are today. The cleanup report indicated that the soil treated onsite through thermal desorption was cleaned to just below the cleanup level at that time and placed back in the excavation. Therefore, PCS is suspected to remain onsite in the area near the former fuel oil tanks and was considered a recognized environmental condition.

The Phase I ESA revealed several recognized environmental conditions at the subject property:

- the existence of subsurface petroleum contaminated soil associated with the former underground storage tanks;
- metal working operations associated with the former chain and forge business including galvanizing of chain and storage of petroleum products;
- past and current boat fabrication operations, including sand blasting of boat hulls, painting activities, and the use of lead ballast;
- above ground heating oil and waste oil tanks;
- an underground hydraulic lift.

4.4 Underground Storage Tank Removal and Site Assessment (2007)

A 600 gallon abandoned gasoline UST was removed from the property in April, 2007. The UST was discovered during onsite underground utility marking conducted at the property in February, 2007. A UST Site Assessment was completed at closure. WES prepared a UST Site Assessment report titled ***210 McKenzie Avenue - Underground Storage Tank Removal and Site Assessment*** (WES, 2007a). The report documented the UST closure/removal and collection of clean confirmation soil samples from the UST excavation. All soil samples collected from the UST excavation met applicable MTCA Method A and B soil cleanup standards. The UST Site Assessment report was submitted to Ecology.

4.5 Initial Site Investigation (2007)

A subsurface soil investigation was conducted at the property in April, 2007. The intent of the investigation was to determine the extent of the PCS remaining at the western portion of the site remediated in 1994, and to determine if other areas of contamination exist at the site. Thirty exploratory trenches were excavated at the site. Observations made during the trench excavation work indicated that sometime in the past, the western portion of the property was filled with imported fill material and debris associated with past uses of the property (including bricks and metal debris) and leveled for use as a boat storage area. Water appears to be perched in the fill/debris material. The majority of the remainder of the property appears to be underlain by relatively dry native clayey silt. Oily sheens were observed on the perched water in several of the test trenches excavated on the western portion of the property. Several areas of stained surface soil were observed in locations where individuals worked on stored boats and may have spilled waste solvents, oil, or fuel on the ground.

The subsurface investigation findings indicated that surface and subsurface soil located at the western portion of the subject property are contaminated with petroleum compounds and metals. The laboratory analytical data confirmed that historical land uses at the site have impacted soil quality at the site. The trench water samples indicated that it was possible that petroleum compounds and metals may have impacted perched water at the site. The trench locations and soil and trench water sample data which exceeded the MTCA Method A target cleanup levels are shown on Figure 3.

A report was prepared titled ***Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington*** (WES, 2007b). A complete discussion of the soil and trench-water analytical results was presented in that report. The report was submitted to Ecology. Based on the Initial Site Investigation findings, a surface soil removal action was conducted and a groundwater investigation was initiated at the property.

4.6 Surface Soil Remediation and Disposal (2007)

A contaminated surface soil removal action was conducted at the property in July, 2007. The soil removal action was conducted prior to the area being used as a laydown yard for the Wastewater Treatment Plant Alternative Outfall project. The intent of the soil removal action was to provide a clean surface for the contractors using the area during the project.

The contaminated surface soil was discovered during the Initial Site Investigation conducted in April, 2007. The contaminated surface soil was located on the western side of the property (WES, 2007b) in an area used as a private boat storage and maintenance yard. Approximately 48 tons of contaminated soil were excavated and shipped offsite to a licensed soil treatment and disposal facility.

The locations where surface soil was excavated are shown on Figure 4. Clean confirmation soil samples collected after the surface soil excavation activities were completed did not contain concentrations of contaminants above the MTCA Method A target cleanup levels. One soil sample collected to characterize the sand blasting grit found in several locations at the property was found to contain concentrations of cadmium above the MTCA Method A target cleanup level.

A report was prepared titled ***210 McKenzie Avenue – Surface Soil Remediation and Disposal Action*** (WES, 2007c). A complete discussion of the surface soil removal action and follow-up soil sampling analytical results was presented in that report.

5.0 GROUNDWATER INVESTIGATION AND RESULTS

Based upon the findings of the initial subsurface soil investigation, a groundwater investigation was initiated in July, 2007. The purpose of the groundwater investigation was to determine if hydrocarbon compounds or metals have impacted groundwater at the site and to establish a groundwater flow direction to determine if there is a potential for offsite migration of contaminates. Six groundwater monitoring wells were installed and groundwater samples were collected for five consecutive quarters in order to evaluate the groundwater quality at the property. The groundwater data results are discussed in Section 5.2.

5.1 Groundwater Characterization

Groundwater monitoring wells were installed on July 24th and 25th, 2007 in each of six soil borings that were drilled at the locations shown on Figure 2. The borings were identified as B-1 through B-6 and the corresponding monitoring wells were identified as MW-1 through MW-6. The monitoring wells were installed at a depth of 15 feet below ground surface and were constructed with 2-inch diameter, machine slotted PVC pipe. The well screen lengths are 10 feet and the top of the PVC well casings are protected with flush mounted well monuments. Soil boring logs are included in Appendix A. Monitoring well design specifications are included in Appendix B.

The monitoring wells were developed on July 26, 2007 using disposable bailers to purge a minimum of 20 gallons from each well. Purge water was monitored for pH and Electrical Conductivity (EC) during the purging process. All purge water was collected in 55 gallon drums for offsite treatment and disposal.

Groundwater samples were collected for laboratory analysis on August 2nd and 3rd, 2007; December 6, 2007; March 12, 2008; June 16, 2008; and September 16, 2008. Common industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

Groundwater samples were collected from each monitoring well using a "low-flow" sample collection method (EPA, 1998). A peristaltic pump and polyethylene tubing were used to collect the water samples from the wells. The tubing was placed approximately 3 feet from the

bottom of the screened interval to avoid disturbing any sediment that may have settled at the bottom of the well.

Water quality indicator parameters were measured during the low-flow well purging, prior to sample collection. The water quality indicator parameters were measured using a Horiba multi-parameter probe (Model U-22XD) equipped with a flow-through cell. Water quality indicator parameters included temperature, electrical conductivity (EC), dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP). When the water quality indicator parameters and water levels stabilized, purging was considered adequate and groundwater samples were collected by the low-flow sampling technique.

Groundwater samples were collected in sample bottles provided by CCI Analytical Laboratories and stored on ice in a cooler immediately after collection. All sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler's name, and the analysis requested. Groundwater samples were identified by the monitoring well identification number. One duplicate sample and one equipment blank sample were also collected during each sampling event. Duplicate samples were identified as MW-7, and equipment blank samples were identified as MW-8.

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor on September 4, 2007. Depth to water in each was well was measured from the top of the PVC well casing with an electronic well probe and recorded in the field notebook. Depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the site. The data indicate that the groundwater flows in a northwesterly direction on the western portion of the property and in a northeasterly direction on the eastern portion of the property. The groundwater elevation data and groundwater surface contours for each sampling event are presented in Appendix C.

5.2 Groundwater Analytical Results

Groundwater samples were analyzed for gasoline and diesel/lube-oil range total petroleum hydrocarbons (TPH), priority pollutant metals, volatile and semi-volatile organic compounds (VOCs and SVOCs), and polychlorinated biphenyls (PCBs). The samples were analyzed at CCI Analytical Laboratories, Inc. in Everett, Washington. CCI is accredited by the Washington State Department of Ecology.

Groundwater analytical data for each monitoring well, as well as the duplicate (MW-7) and blank (MW-8) samples, are summarized in Tables 1 through 8. The final water quality indicator parameter measurements for each well collected prior to sample collection are shown on Table 9. All samples were analyzed within the prescribed holding times, and the equipment blank and duplicate sample results were within acceptable limits.

No petroleum compounds, VOCs, SVOCs, or PCBs were detected above MTCA Method A cleanup levels in any of the groundwater samples collected from wells MW-1 through MW-6. Arsenic was detected above MTCA Method A cleanup levels in MW-1 on 8/2/07; in MW-2 during all sampling events; and in MW-6 on 12/6/07, 3/12/08, and 9/16/08. Other minor concentrations of metals were detected below MTCA Method A cleanup levels in MW-1, MW-2, and MW-3 over the five quarters. Diesel and gasoline range TPH were detected below MTCA Method A cleanup levels in MW-3. Five VOCs were detected below MTCA cleanup levels in MW-3. Various SVOCs were detected below MTCA Method A cleanup levels in MW-1, MW-2, MW-3, MW-5, and MW-6. The laboratory analytical data are included in Appendix D.

The groundwater indicator parameter data collected during the low-flow well purging are summarized in Table 9. The data revealed that groundwater beneath the site is generally low in oxygen, indicating anaerobic conditions. Oxygen concentrations in the wells were generally less that 1 mg/L, with the exception of well MW-5. The data indicate that groundwater beneath the site has a relatively neutral pH. The oxidation-reduction potential in wells MW-1, MW-2, MW-3, and MW-6 were low, indicating reducing conditions exist in the groundwater at those locations.

6.0 CONCLUSIONS

A groundwater investigation was performed at 210 McKenzie Avenue in Bellingham, Washington. Six groundwater monitoring wells were installed at the site in July, 2007. The monitoring wells were developed and groundwater samples were collected for five consecutive quarters using a low-flow sample collection method (USEPA, 1998).

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds, VOCs, SVOCs, or PCBs. The groundwater investigation has revealed evidence of dissolved arsenic contamination at two well locations at concentrations that exceed the MTCA Method A target cleanup level for arsenic.

Monitoring wells MW-2 and MW-6 yielded relatively consistent arsenic detections over the monitoring period. The source of the arsenic detected in wells MW-2 and MW-6 is unknown. The arsenic detections could be the result of past uses of the property or they could be the result of natural causes. Groundwater from both of those wells had low oxidation-reduction potential, indicating reducing conditions (Table 9). Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release (Welch et. al, 2000). Strongly reducing aquifers are often derived from alluvium and tend to contain geologically young sediments and to be in flat, low-lying areas where groundwater flow is sluggish. The perched water in the Bellingham Glaciomarine Drift located beneath the site exhibit the criteria where reducing conditions are commonly found. Arsenic can also be released to groundwater under anaerobic groundwater conditions through methanogenesis (Kirk et. al, 2004).

Monitoring wells MW-1, MW-2 and MW-6 are located at the downgradient edges of the property (Appendix C). The laboratory analytical data indicates that petroleum compounds and PCBs are not adversely impacting groundwater at those well locations, therefore petroleum products do not appear to be migrating offsite.

The groundwater monitoring well system will be monitored on a quarterly schedule in 2009. The groundwater monitoring parameter list will be reduced based on the data collected during five quarterly sampling events. Future groundwater samples will be analyzed for gasoline and diesel range TPH and arsenic. Additional parameters may be added to the list to further explore the causes of the arsenic detections in wells MW-2 and MW-6 (i.e. sulfate and/or iron and manganese etc.)

7.0 LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by WES is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on WES' field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. WES prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent from WES. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

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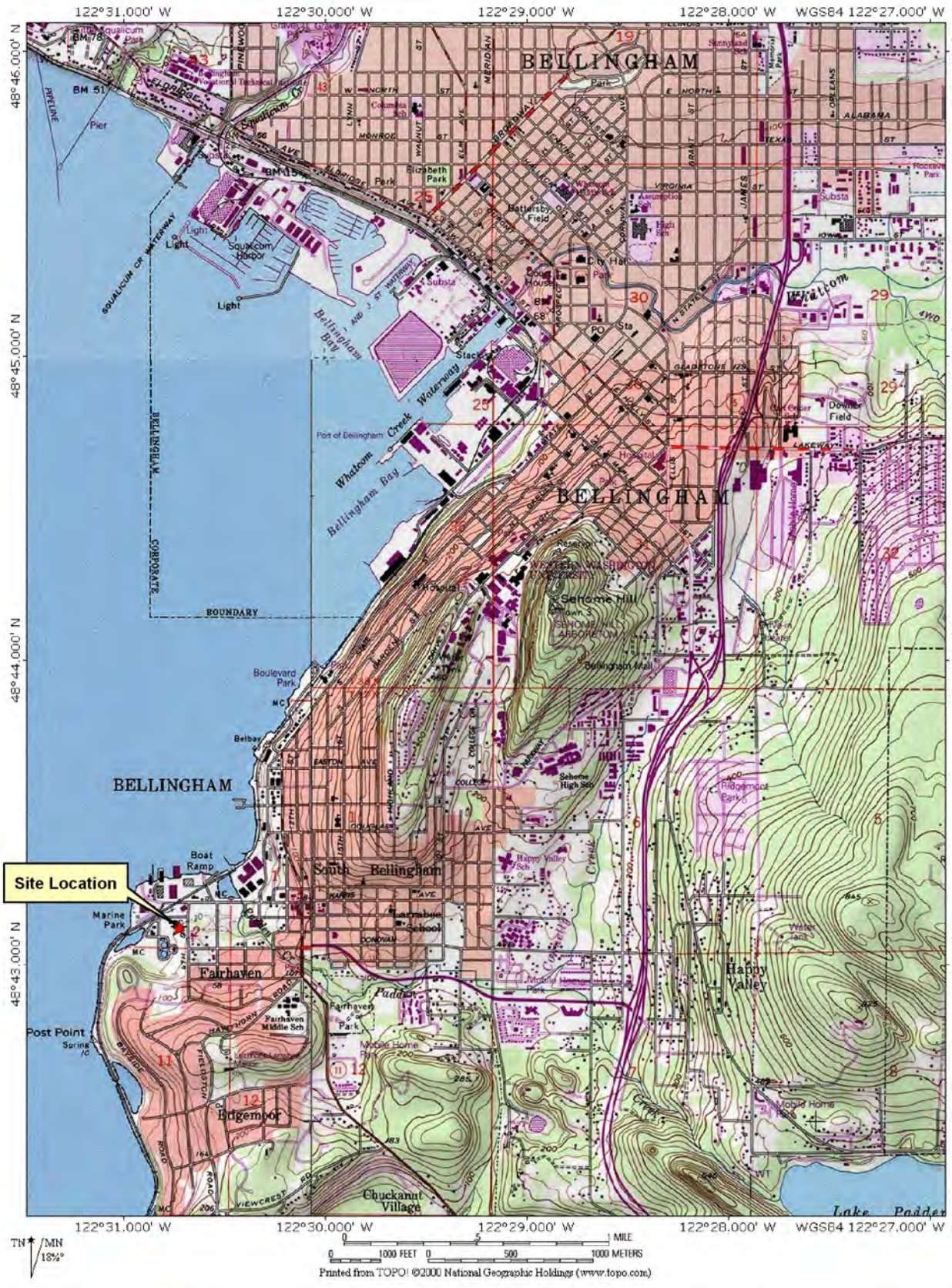


Prepared for:

City of Bellingham

Prepared by:

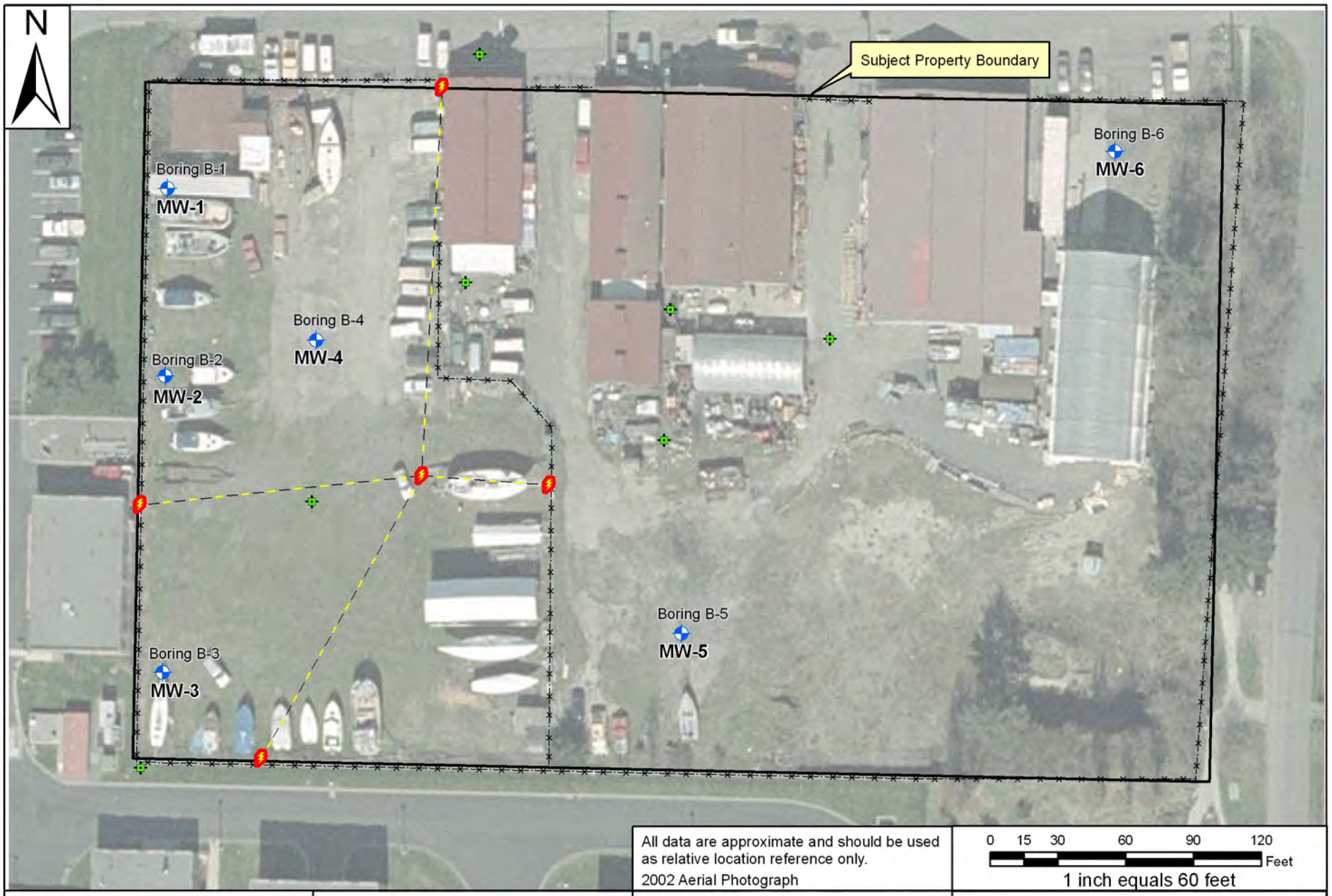
whatcom ENVIRONMENTAL

Site Location Map

210 McKenzie

9/25/08

Figure 1



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

- Monitoring Wells
- Power Posts
- Catch Basins
- Fenceline

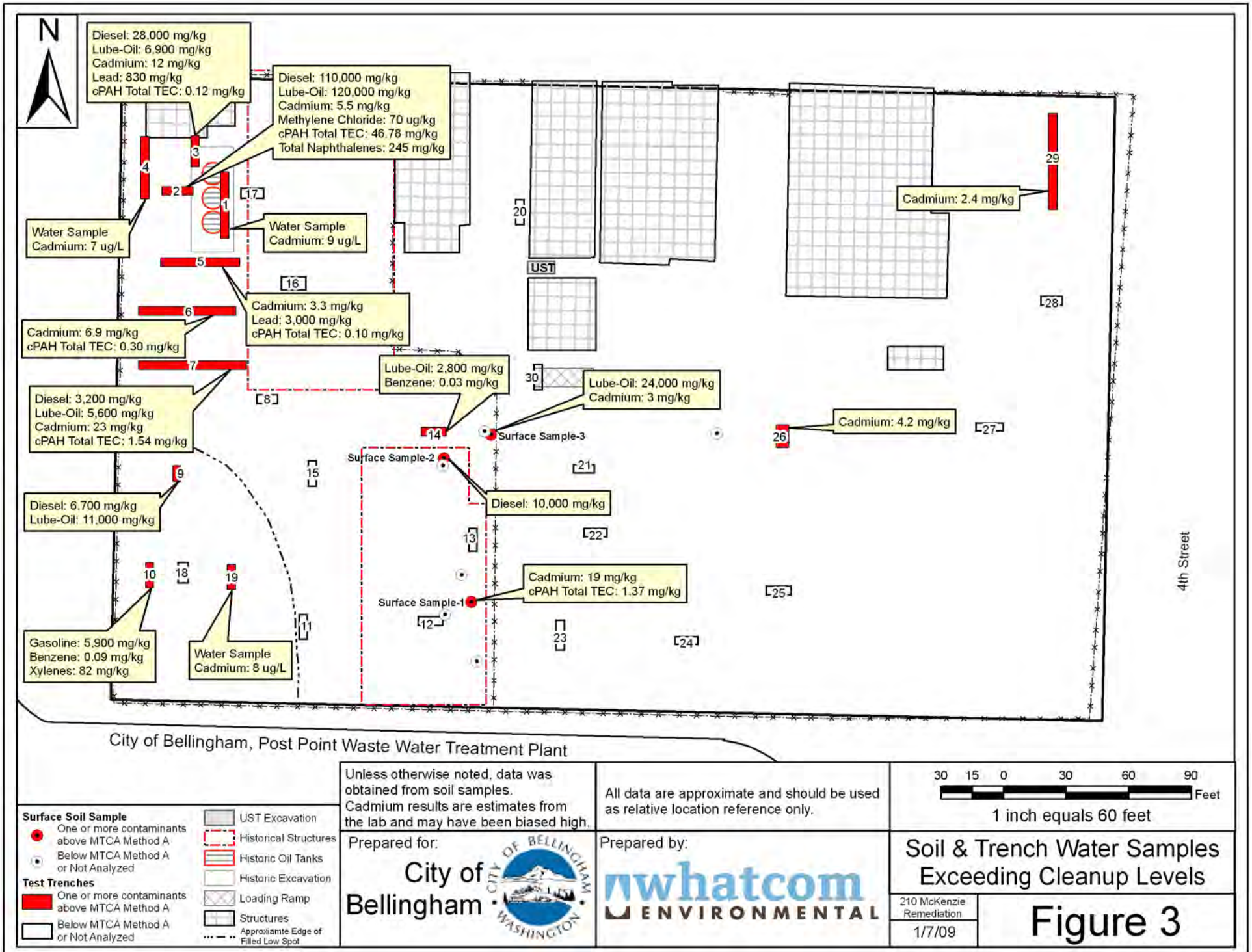
Prepared for: City of Bellingham

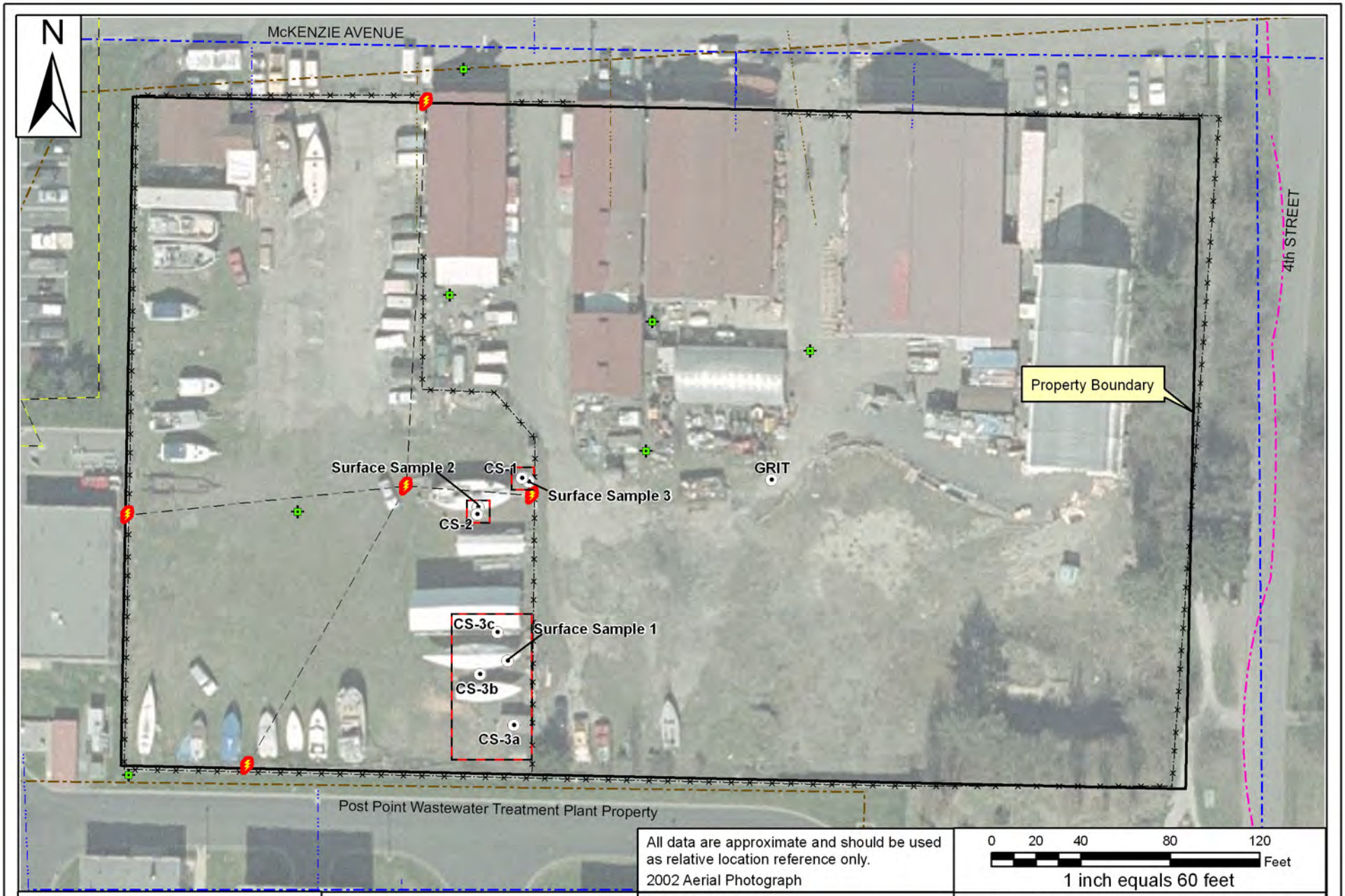
Prepared by: nwhatcom ENVIRONMENTAL

Monitoring Well Location Map

210 McKenzie Remediation
1/7/09

Figure 2


N
Diesel: 28,000 mg/kg
Lube-Oil: 6,900 mg/kg
Cadmium: 12 mg/kg
Lead: 830 mg/kg
cPAH Total TEC: 0.12 mg/kg
Diesel: 110,000 mg/kg
Lube-Oil: 120,000 mg/kg
Cadmium: 5.5 mg/kg
Methylene Chloride: 70 ug/kg
cPAH Total TEC: 46.78 mg/kg
Total Naphthalenes: 245 mg/kg
Water Sample
Cadmium: 7 ug/L
Water Sample
Cadmium: 9 ug/L
Cadmium: 2.4 mg/kg
UST
Cadmium: 3.3 mg/kg
Lead: 3,000 mg/kg
cPAH Total TEC: 0.10 mg/kg
Cadmium: 6.9 mg/kg
cPAH Total TEC: 0.30 mg/kg
Lube-Oil: 2,800 mg/kg
Benzene: 0.03 mg/kg
Lube-Oil: 24,000 mg/kg
Cadmium: 3 mg/kg
Diesel: 3,200 mg/kg
Lube-Oil: 5,600 mg/kg
Cadmium: 23 mg/kg
cPAH Total TEC: 1.54 mg/kg
Surface Sample-3
Cadmium: 4.2 mg/kg
Surface Sample-2
Diesel: 10,000 mg/kg
Diesel: 6,700 mg/kg
Lube-Oil: 11,000 mg/kg
Cadmium: 19 mg/kg
cPAH Total TEC: 1.37 mg/kg
Surface Sample-1
Gasoline: 5,900 mg/kg
Benzene: 0.09 mg/kg
Xylenes: 82 mg/kg
Water Sample
Cadmium: 8 ug/L
4th Street
City of Bellingham, Post Point Waste Water Treatment Plant
Surface Soil Sample
One or more contaminants above MTCA Method A
Below MTCA Method A or Not Analyzed
Test Trenches
One or more contaminants above MTCA Method A
Below MTCA Method A or Not Analyzed
UST Excavation
Historical Structures
Historic Oil Tanks
Historic Excavation
Loading Ramp
Structures
Approxiamte Edge of Filled Low Spot
Unless otherwise noted, data was obtained from soil samples.
Cadmium results are estimates from the lab and may have been biased high.
All data are approximate and should be used as relative location reference only.
30 15 0 30 60 90
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
Prepared by:
whatcom ENVIRONMENTAL
Soil & Trench Water Samples Exceeding Cleanup Levels
210 McKenzie Remediation
1/7/09
Figure 3



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 20 40 80 120 Feet
1 inch equals 60 feet

Surface Soil Sample
Surface Excavations
Catch Basins
Fenceline
Power Posts
Property Electrical Lines
Fiber Optic Line
Sanitary Sewer Line
City Storm Sewer Line
Water Line

Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Surface Soil Remediation and Sample Locations

210 McKenzie Remediation
1/7/09

Figure 4

Table 1. Groundwater Analytical Results for MW-1 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-1	MW-1	MW-1	MW-1	MW-1	MTCA Method A
Date	8/2/07	12/6/07	3/12/08	6/16/08	9/15/08	**Cleanup Levels**
	Quarter 3	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	7	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	46	26	33	ND(<10)	22	
Arsenic (Method 7060)	**7**	ND(<4)	ND(<4)	ND(<4)	ND(<4)	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
1-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
2-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Total Naphthalenes	ND	ND	ND	ND	ND	160
Acenaphthylene	ND(<0.02)	0.02	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Acenaphthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluorene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Phenanthrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluoranthene	ND(<0.02)	0.02	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Pyrene	ND(<0.02)	0.02	ND(<0.02)	ND(<0.02)	ND(<0.02)	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

Bold - Concentration exceeded MTCA Method A cleanup level

** - For a full Method analyte list, see Appendices

Table 2. Groundwater Analytical Results for MW-2 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-2	MW-2	MW-2	MW-2	MW-2	MTCA Method A
Date	8/2/07	12/6/07	3/12/08	6/16/08	9/16/08	Cleanup Levels
	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	12	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	**11**	**12**	**15**	**6**	**20**	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	0.03	0.03	ND(<0.02)	ND(<0.02)	ND(<0.02)	
1-Methylnaphthalene	0.06	0.05	0.05	0.05	0.04	
2-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Total Naphthalenes	0.09	0.08	0.05	0.05	0.04	160
Acenaphthylene	0.02	0.04	ND(<0.02)	ND(<0.02)	0.02	
Acenaphthene	0.13	0.13	0.10	0.10	0.11	
Fluorene	0.08	0.09	0.08	0.09	0.09	
Phenanthrene	0.17	0.16	0.13	0.14	0.16	
Anthracene	0.07	0.06	0.05	0.06	0.07	
Fluoranthene	0.02	0.04	0.02	0.03	0.04	
Pyrene	0.04	0.06	0.04	0.05	0.06	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

Bold - Concentration exceeded MTCA Method A cleanup level

** - For a full Method analyte list, see Appendices

Table 3. Groundwater Analytical Results for MW-3 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-3	MW-3	MW-3	MW-3	MW-3	MTCA Method A
Date	8/2/07	12/6/07	3/12/08	6/16/08	9/16/08	Cleanup Levels
	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	64	ND(<50)	ND(<50)	77	800/1,000*
Diesel Range Organics (NWTPH - Dx)	150	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	4	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	2	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	4	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	130	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	3	3	3	4	5	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	3	3	3	3	7	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	0.23	0.19	0.12	0.14	0.18	
1-Methylnaphthalene	0.44	0.29	0.31	0.34	0.34	
2-Methylnaphthalene	0.32	0.18	0.15	0.16	0.17	
Total Naphthalenes	0.99	0.66	0.58	0.64	0.69	160
Acenaphthylene	ND(<0.02)	0.03	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Acenaphthene	0.21	0.18	0.21	0.23	0.28	
Fluorene	0.19	0.19	0.23	0.25	0.30	
Phenanthrene	0.13	0.14	0.15	0.18	0.16	
Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluoranthene	ND(<0.02)	0.02	ND(<0.02)	0.02	0.03	
Pyrene	0.03	0.02	ND(<0.02)	ND(<0.02)	ND(<0.02)	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

** - For a full Method analyte list, see Appendices

Table 4. Groundwater Analytical Results for MW-4 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-4	MW-4	MW-4	MW-4	MW-4	MTCA Method A
Date	8/3/07	12/6/07	3/12/08	6/16/08	9/16/08	Cleanup Levels
	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
1-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
2-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Total Naphthalenes	ND	ND	ND	ND	ND	160
Acenaphthylene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Acenaphthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluorene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Phenanthrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluoranthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Pyrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

** - For a full Method analyte list, see Appendices

Table 5. Groundwater Analytical Results for MW-5 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-5	MW-5	MW-5	MW-5	MW-5	MTCA Method A
Date	8/3/07	12/6/07	3/12/08	6/16/08	9/16/08	**Cleanup Levels**
	Quarter 3	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
1-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
2-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Total Naphthalenes	ND	ND	ND	ND	ND	160
Acenaphthylene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Acenaphthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluorene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Phenanthrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluoranthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Pyrene	0.03	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

** - For a full Method analyte list, see Appendices

Table 6. Groundwater Analytical Results for MW-6 - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-6	MW-6	MW-6	MW-6	MW-6	MTCA Method A
Date	8/3/07	12/6/07	3/12/08	6/16/08	9/16/08	Cleanup Levels
	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	4	**6**	**5**	ND(<4)	**12**	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
1,1-Dichloroethane	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	
2-Butanone	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	5
Toluene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
Ethylbenzene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	700
M+P Xylene	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	1,000
O-Xylene	ND(<2)	ND(<2)	ND(<2)	ND(<2)	ND(<2)	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	ND(<0.02)	0.03	ND(<0.02)	ND(<0.02)	ND(<0.02)	
1-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
2-Methylnaphthalene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Total Naphthalenes	ND	0.03	ND	ND	ND	160
Acenaphthylene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Acenaphthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluorene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Phenanthrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Anthracene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Fluoranthene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
Pyrene	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	
PCBs (Method 8082) µg/L**	ND	ND	ND	ND	ND	

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

* - Cleanup level dependent on BTEX concentration

** - For a full Method analyte list, see Appendices

Table 7. Groundwater Analytical Results for Duplicate Samples - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-7	MW-7	MW-7	MW-7	MW-7	MTCA Method A
	Dup. of MW-2	Dup. of MW-1	Dup. of MW-3	Dup. of MW-6	Dup. of MW-1	
Date	8/2/07	12/6/07	3/12/08	6/16/08	9/16/08	**Cleanup Levels**
	Quarter 3	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	NA	NA	ND(<50)	NA	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	ND(<130)	ND(<130)	ND(<130)	NA	ND(<130)	500
Heavy Oils (NWTPH - Dx)	ND(<250)	ND(<250)	ND(<250)	NA	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	NA	ND(<20)	NA	ND(<20)	ND(<20)	
Beryllium (Method 6010)	NA	ND(<5)	NA	ND(<5)	ND(<5)	
Cadmium (Method 6010)	NA	ND(<5)	NA	ND(<5)	ND(<5)	5
Chromium (Method 6010)	NA	ND(<7)	NA	ND(<7)	ND(<7)	100
Copper (Method 6010)	NA	9	NA	ND(<5)	ND(<5)	
Nickel (Method 6010)	NA	ND(<20)	NA	ND(<20)	ND(<20)	
Selenium (Method 6010)	NA	ND(<40)	NA	ND(<40)	ND(<40)	
Silver (Method 6010)	NA	ND(<30)	NA	ND(<30)	ND(<30)	
Zinc (Method 6010)	NA	25	NA	ND(<10)	16	
Arsenic (Method 7060)	NA	ND(<4)	NA	ND(<4)	ND(<4)	5
Lead (Method 7421)	NA	ND(<3)	NA	ND(<3)	ND(<3)	15
Mercury (Method 7470)	NA	ND(<0.2)	NA	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	NA	ND(<2)	NA	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	NA	NA	NA	NA	NA	
1,1-Dichloroethane	NA	NA	NA	NA	NA	
2-Butanone	NA	NA	NA	NA	NA	
Benzene	NA	NA	NA	NA	NA	5
Toluene	NA	NA	NA	NA	NA	1,000
Ethylbenzene	NA	NA	NA	NA	NA	700
M+P Xylene	NA	NA	NA	NA	NA	1,000
O-Xylene	NA	NA	NA	NA	NA	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	NA	NA	NA	NA	NA	
1-Methylnaphthalene	NA	NA	NA	NA	NA	
2-Methylnaphthalene	NA	NA	NA	NA	NA	
Total Naphthalenes	NA	NA	NA	NA	NA	160
Acenaphthylene	NA	NA	NA	NA	NA	
Acenaphthene	NA	NA	NA	NA	NA	
Fluorene	NA	NA	NA	NA	NA	
Phenanthrene	NA	NA	NA	NA	NA	
Anthracene	NA	NA	NA	NA	NA	
Fluoranthene	NA	NA	NA	NA	NA	
Pyrene	NA	NA	NA	NA	NA	
PCBs (Method 8082) µg/L**	NA	NA	NA	NA	NA	

NA - indicates sample not analyzed for the specified analyte

* - Cleanup level dependent on BTEX concentration

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

** - For a full Method analyte list, see Appendices

Table 8. Groundwater Analytical Results for Equipment Blank Samples - 210 McKenzie Avenue, Bellingham, WA

Sample ID	MW-8 Blank	MW-8 Blank	MW-8 Blank	MW-8 Blank	MW-8 Blank	MTCA Method A
Date	8/3/07	12/6/07	3/13/08	6/16/08	9/16/08	**Cleanup Levels**
	Quarter 3	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	
Total Petroleum Hydrocarbons µg/L						
Gasoline Range Organics (NWTPH - Gx)	NA	NA	NA	NA	ND(<50)	800/1,000*
Diesel Range Organics (NWTPH - Dx)	NA	ND(<130)	ND(<130)	NA	ND(<130)	500
Heavy Oils (NWTPH - Dx)	NA	ND(<250)	ND(<250)	NA	ND(<250)	500
Metals (µg/L)						
Antimony (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Beryllium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Cadmium (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	5
Chromium (Method 6010)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	ND(<7)	100
Copper (Method 6010)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	ND(<5)	
Nickel (Method 6010)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	
Selenium (Method 6010)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	ND(<40)	
Silver (Method 6010)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	ND(<30)	
Zinc (Method 6010)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Arsenic (Method 7060)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	ND(<4)	5
Lead (Method 7421)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	ND(<3)	15
Mercury (Method 7470)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	ND(<0.2)	2
Thallium (Method 7841)	ND(<2)	ND(<2)	ND(<100)	ND(<2)	ND(<2)	
VOCs (Method 8260) µg/L**						
Chloromethane	ND(<2)	NA	NA	NA	NA	
1,1-Dichloroethane	ND(<2)	NA	NA	NA	NA	
2-Butanone	ND(<10)	NA	NA	NA	NA	
Benzene	ND(<2)	NA	NA	NA	NA	5
Toluene	ND(<2)	NA	NA	NA	NA	1,000
Ethylbenzene	ND(<2)	NA	NA	NA	NA	700
M+P Xylene	ND(<4)	NA	NA	NA	NA	1,000
O-Xylene	ND(<2)	NA	NA	NA	NA	1,000
SVOCs (Method 8270 SIM) µg/L**						
Naphthalene	NA	NA	NA	NA	NA	
1-Methylnaphthalene	NA	NA	NA	NA	NA	
2-Methylnaphthalene	NA	NA	NA	NA	NA	
Total Naphthalenes	NA	NA	NA	NA	NA	160
Acenaphthylene	NA	NA	NA	NA	NA	
Acenaphthene	NA	NA	NA	NA	NA	
Fluorene	NA	NA	NA	NA	NA	
Phenanthrene	NA	NA	NA	NA	NA	
Anthracene	NA	NA	NA	NA	NA	
Fluoranthene	NA	NA	NA	NA	NA	
Pyrene	NA	NA	NA	NA	NA	
PCBs (Method 8082) µg/L**	NA	NA	NA	NA	NA	

NA - indicates sample not analyzed for the specified analyte

* - Cleanup level dependent on BTEX concentration

ND - indicates analyte was not detected in the sample (reporting limit shown in parentheses)

** - For a full Method analyte list, see Appendices

Table 9. Groundwater Chemistry Parameters - 210 McKenzie Avenue, Bellingham, WA

Well ID	Date	Temp (oC)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	8/2/2007	16.63	0.575	0.24	6.87	-125.9
	12/6/2007	9.2	0.475	0.00	6.90	132
	3/12/2008	9.0	0.401	1.71	7.10	136
	6/16/2008	13.0	0.599	*	6.70	28
	9/16/2008	16.1	0.737	*	7.07	-84
	10/29/2008	-	-	0.10	-	-
MW-2	8/2/2007	15.88	0.609	0.13	6.67	-107.2
	12/6/2007	10.8	0.748	0.00	7.00	-115
	3/12/2008	9.1	0.725	0.00	7.40	-166
	6/16/2008	12.4	0.713	*	6.90	-160
	9/16/2008	16.0	0.762	*	6.96	-129
	10/29/2008	-	-	0.10	-	-
MW-3	8/2/2007	16.48	1.028	0.16	6.48	-84.2
	12/6/2007	9.7	0.772	0.00	6.70	-87
	3/12/2008	9.5	1.050	0.00	7.20	-154
	6/16/2008	13.2	0.822	*	6.80	-138
	9/16/2008	17.5	1.060	*	6.84	-122
	10/29/2008	-	-	0.10	-	-
MW-4	8/3/2007	16.98	0.337	2.08	6.46	127.3
	12/6/2007	13.0	0.643	0.00	6.80	100
	3/12/2008	10.3	0.609	0.05	7.10	85
	6/16/2008	14.8	0.540	*	6.80	61
	9/16/2008	18.2	0.592	*	6.84	112
	10/29/2008	-	-	0.20	-	-
MW-5	8/3/2007	17.74	0.343	4.85	7.54	84.2
	12/6/2007	10.2	0.412	6.87	7.80	138
	3/12/2008	9.3	0.207	4.22	8.00	79
	6/16/2008	14.5	0.186	*	7.00	76
	9/16/2008	18.3	0.349	*	7.48	111
	10/29/2008	-	-	3.80	-	-
MW-6	8/3/2007	16.52	0.436	0.19	6.23	16.5
	12/6/2007	10.3	0.394	0.00	6.60	-50
	3/12/2008	9.0	0.413	0.00	6.90	-107
	6/16/2008	13.7	0.426	*	6.30	-85
	9/16/2008	16.5	0.492	*	6.48	-84
	10/29/2008	-	-	0.10	-	-

* = DO probe membrance mafunctioned during sample collection event

DO readings were verified on October 29, 2008 using a Hach HQ10 non-membrance type DO probe.

APPENDIX A

Soil Boring Logs

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-1**
Location: NW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with minor gravel, Brown, Firm, Dry	3-3-3	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet	1-3-1	0.0	SS	
12.5' to 14' Silty clay with minor fine sand and gravel, Olive gray with minor gray vertical fractures, Firm, Dry	5-7-11	0.0	NS	
NOTE: Drilling was refused twice approximately 6 feet east prior to completion of this boring. Both attempts were abandoned with bentonite chip.				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-2**
Location: West center fence line
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~6 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' 2.5' to 3' - Gravel up to 1.5", Loose, Dry 3' to 4' - Clayey silt with moderate gravel, Brown, Firm, Dry	4-5-4	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet (1 ft of recovery)	1-2-1	0.0	NS	
12.5' to 14' Medium to coarse sand, Olive gray, Loose, Wet (recovery limited due to excessive water in sample spoon)	11-15-17	0.0	SS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-3**
Location: SW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~7 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' No Recovery	7/11/27			
7.5' to 9' Clayey fine sand with minor gravel, Gray, Firm, Wet	0-0-1	0.0	NS	
12.5' to 14'	0-1-1	0.0	NS	
12.5' to 13' - Peat, Dark brown, Sticky, Firm, Wet				
13' to 14' - Clayey fine sand with shell fragments and minor gravel, Gray, Loose, Wet				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-4**
Location: SW corner of concrete pad of old forge building
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~8 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Poor recovery. Some material in shoe. Silty clay with gravel, Light brown, Firm, Dry	2-3-3	0.0	NS	
7.5' to 9' Silty sand with minor gravel, Light brown, Loose, Wet (half of spoon recovery)	9-14-12	0.0	NS	
12.5' to 14' Silty clay with minor gravel, Brown with orange mottling, Hard, Moist to dry	10-14-15	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-5**
Location: South center of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~7.5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Fine Sand with abundant gravel (to 3"), Brown, Firm, Dry	19-26-26	0.0	NS	
7.5' to 9' Silty fine to medium sand with moderate gravel (to 2"), Brown, Firm, Wet Silt layer at 8.5', dry Medium sand in shoe	13-20-26	0.0	NS	
12.5' to 14' Silty fine sand with minor gravel (to 1"), Gray, Firm, Slightly moist	20-41-23	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-6**
Location: NE corner of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water:
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with moderate gravel (to 3"), Brown, Firm, Dry	2-3-2	0.0	NS	
7.5' to 9' Silty sand with gravel, Brown, Loose, Wet Layer of organic material a 8' bgs (decomposed wood and soil layer)	1 for 18"	0.0	NS	
12.5' to 14' Silty clay with minor gravel (to 1"), Gray, Firm, Moist Changed to Brown, Hard, Dry at 13' bgs	4-11-14	0.0	NS	

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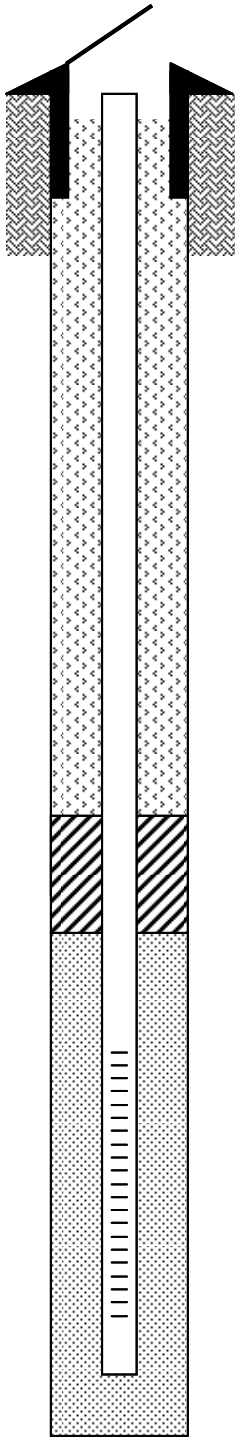
APPENDIX B

Monitoring Well Design Specifications

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

15.0'

15.25'

15.25'

Elevations (feet): Top of Casing:
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Coordinate System:

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/26/2007 (developed)	5.02'	13.93	6	400
8/2/2007	5.09'	13.86	6.87	575
12/16/2008	2.79	16.16	6.9	475
3/12/2008	3.66	15.29	7.1	401

Comments:

Project: 210 McKenzie Ave.

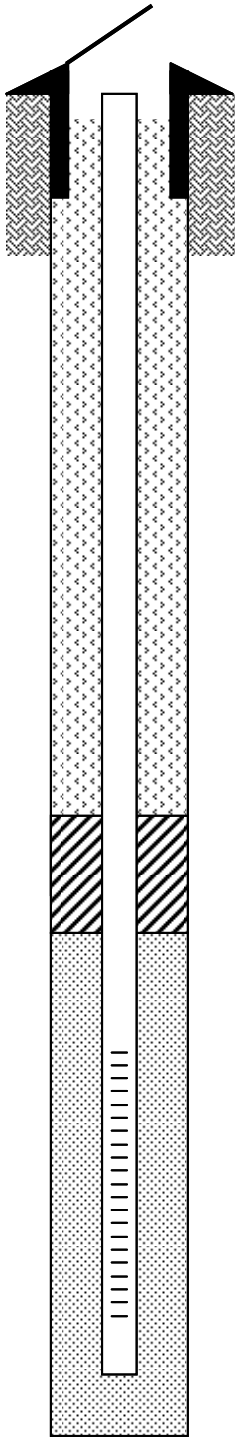
Location: NW corner of Property

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 1 APQ984

210 McKenzie Avenue

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Elevations (feet): Top of Casing:
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Coordinate System:

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/26/2007 (developed)	5.08'	13.6	6	438
8/2/2007	4.54'	14.14	6.67	609
12/16/2008	2.55	16.13	7	748
3/12/2008	3.41	15.27	7.4	725

Comments: Globules of black oil observed in cuttings and on water emenating from boring during drilling of well. Sheen observed on purge water in bucket when well was developed.

Project: 210 McKenzie Ave.

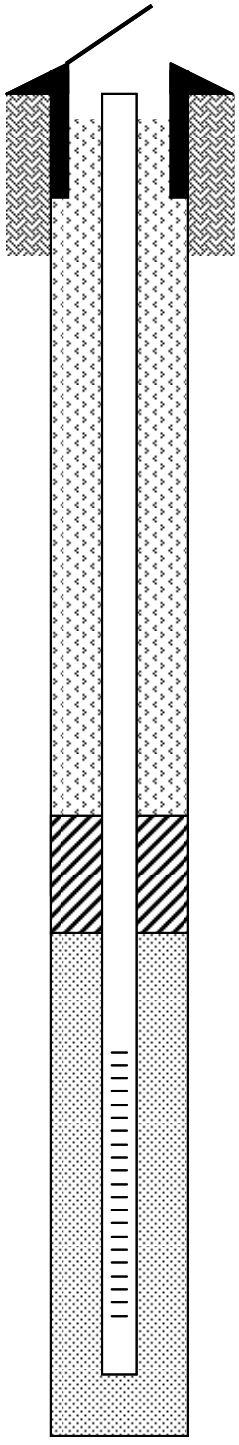
Location: Center of western fence line

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 2 APQ985

210 McKenzie Avenue

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.67'

15.0'

15.5'

Elevations (feet): Top of Casing: _____
Mean Sea Level (MSL) Ground Elevation: _____

Coordinates: _____ _____

Coordinate System: _____

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: _____ **Weight:** _____

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/25/2007 (developed)	3.56'	14.05	6.5	780
8/2/2007	3.49'	14.12	6.48	1,028
12/16/2008	2.11	15.5	6.7	772
3/12/2008	2.36	15.25	7.2	1,050

Comments:

Project: 210 McKenzie Ave.

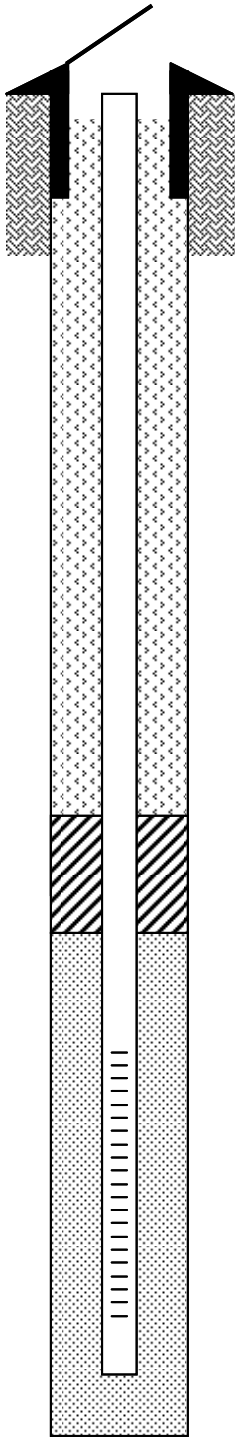
Location: SW corner of property

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 3 APQ986

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.75'

14.75'

15.0'

Not to Scale

Elevations (feet): Top of Casing: _____
Mean Sea Level (MSL) Ground Elevation: _____

Coordinates: _____ _____

Coordinate System: _____

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: _____ **Weight:** _____

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/25/2007 (developed)	6.12'	14.2	6	271
8/3/2007	6.19'	14.13	6.46	337
12/16/2008	4.07	16.25	6.8	643
3/12/2008	4.96	15.36	7.1	609

Comments: _____

Project: 210 McKenzie Ave.

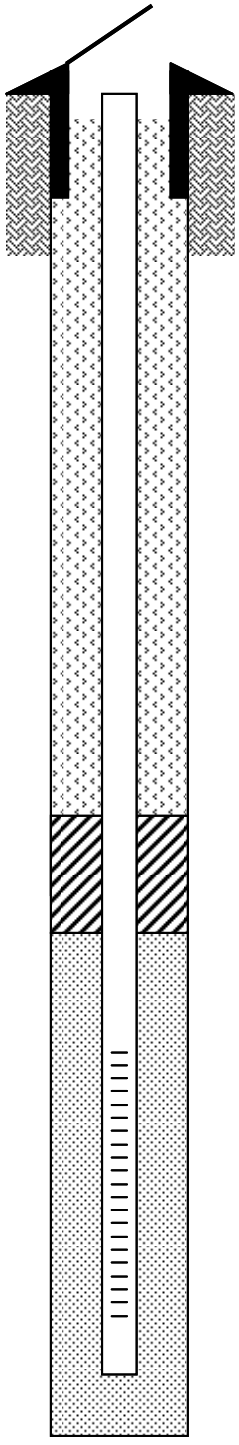
Location: In concrete slab of old forge building

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 4 APQ987

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.58'

15.0'

15.5'

Not to Scale

Elevations (feet): Top of Casing: _____
Mean Sea Level (MSL) Ground Elevation: _____

Coordinates: _____ _____

Coordinate System: _____

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: _____ **Weight:** _____

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/25/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/26/2007 (developed)	9.12'	16.02	6.5	300
8/3/2007	6.31	18.83	7.54	343
12/16/2008	1.54	23.6	7.8	412
3/12/2008	1.98	23.16	8	207

Comments: Bailed dry after 5 gallons when well was developed.

Project: 210 McKenzie Ave.

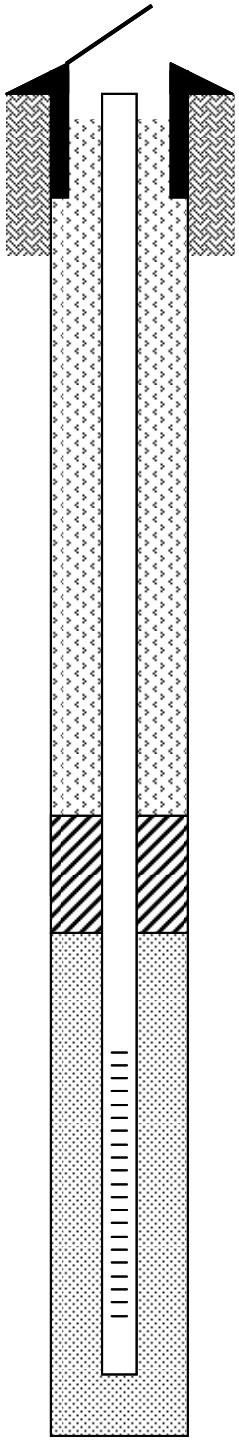
Location: Center of south side of property

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 5 APQ988

210 McKenzie Avenue

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Elevations (feet): Top of Casing: _____
Mean Sea Level (MSL) Ground Elevation: _____

Coordinates: _____ _____

Coordinate System: _____

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: _____ **Weight:** _____

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mV)
7/26/2007 (developed)	5.12'	16.1	6	347
8/3/2007	5.51'	15.71	6.23	436
12/16/2008	2.36	18.86	6.6	394
3/12/2008	2.79	18.43	6.9	413

Comments: Bailed dry after 15 gallons when well was developed.

Project: 210 McKenzie Ave.

Location: NE corner of property

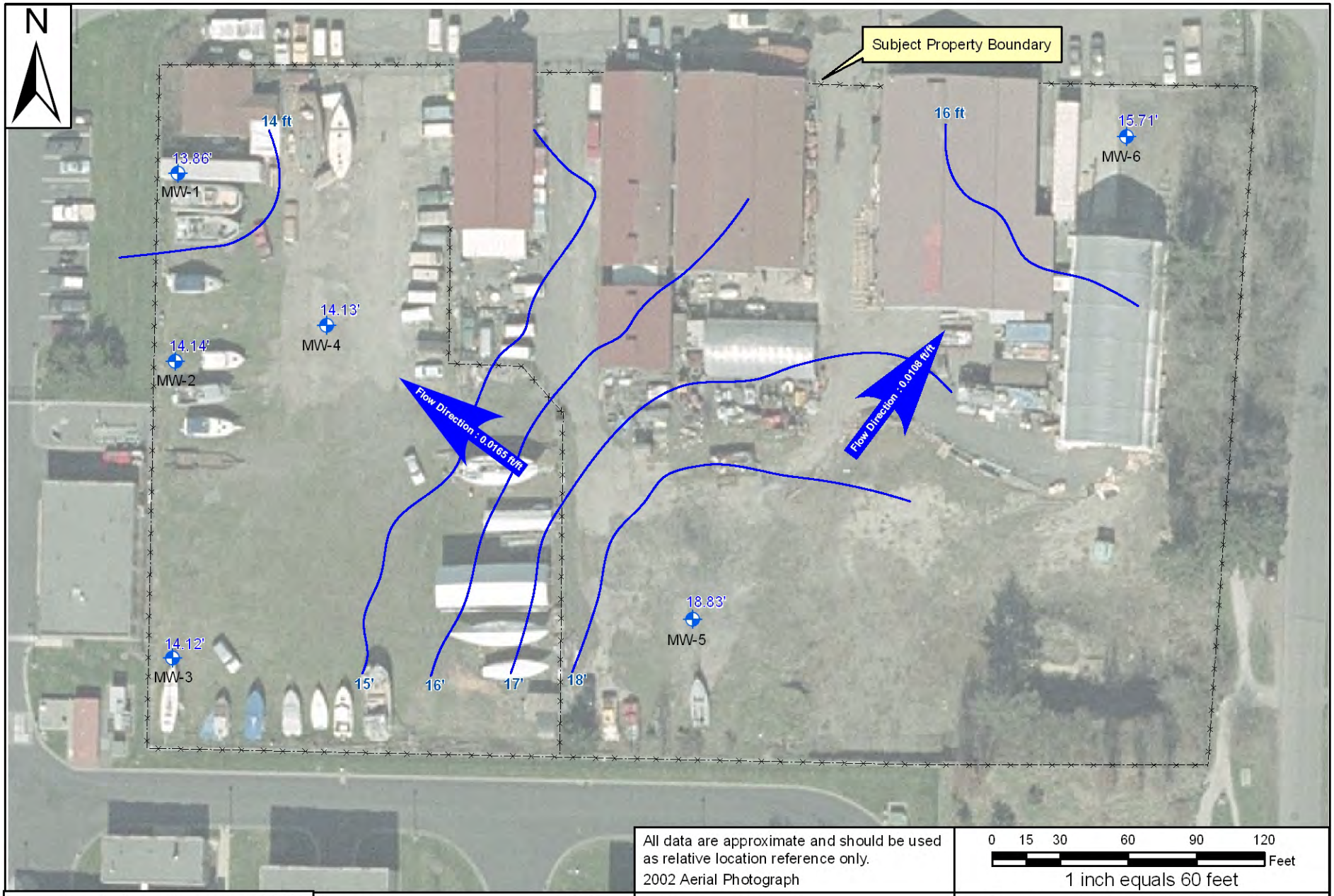
Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 6 APQ989

210 McKenzie Avenue

APPENDIX C

Groundwater Elevation Contour Maps



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Groundwater Contours (ft) - 8/3/2007
Monitoring Wells
Fenceline
14.00' = Groundwater elevation in well (ft)
14' = Groundwater contour elevation (ft)

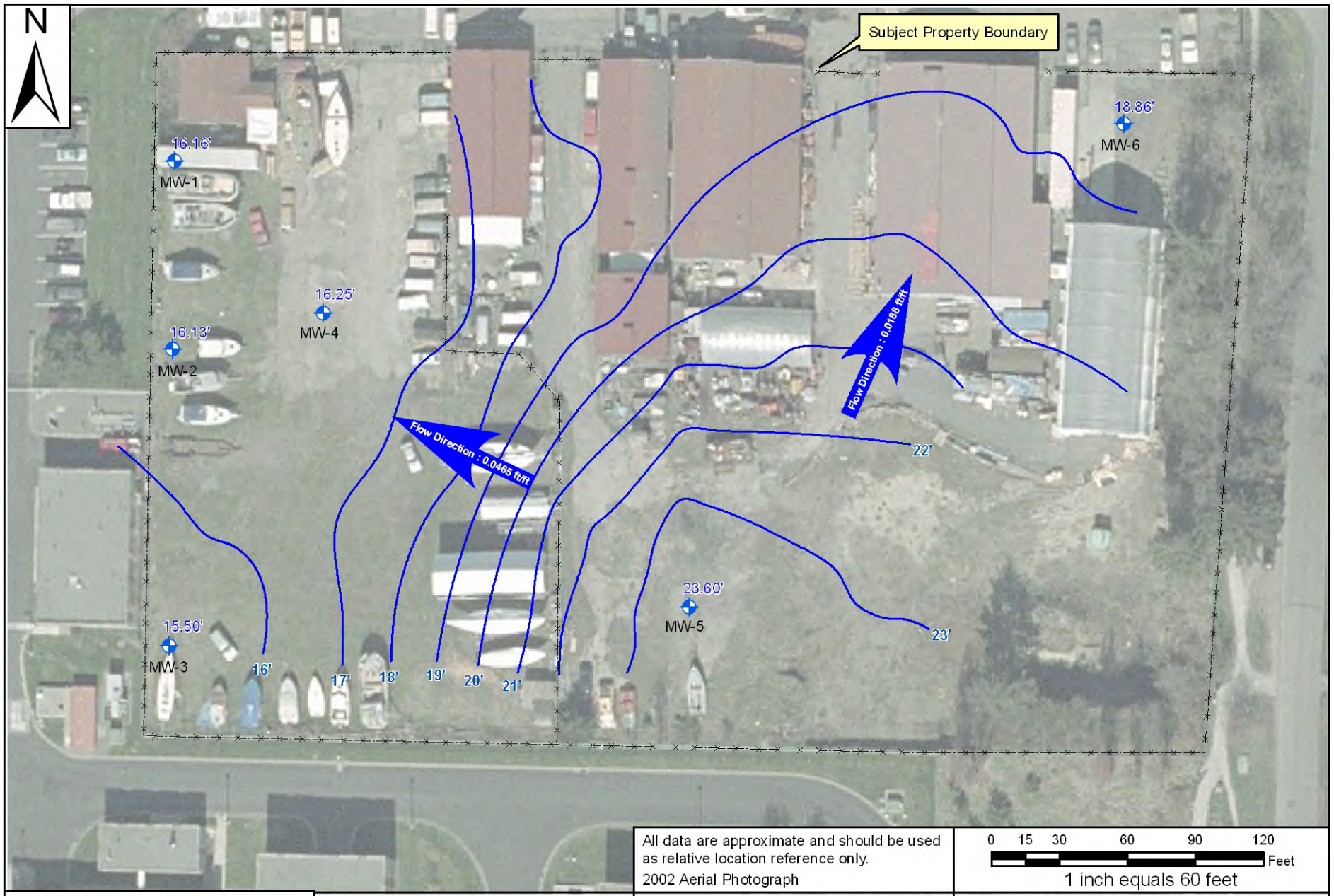
Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevations Contours - 8/3/07

210 McKenzie Remediation
9/25/08

Figure C-1



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Groundwater Contours (ft) - 12/6/2007
Monitoring Wells
Fenceline
14.00' = Groundwater elevation in well (ft)
14' = Groundwater contour elevation (ft)

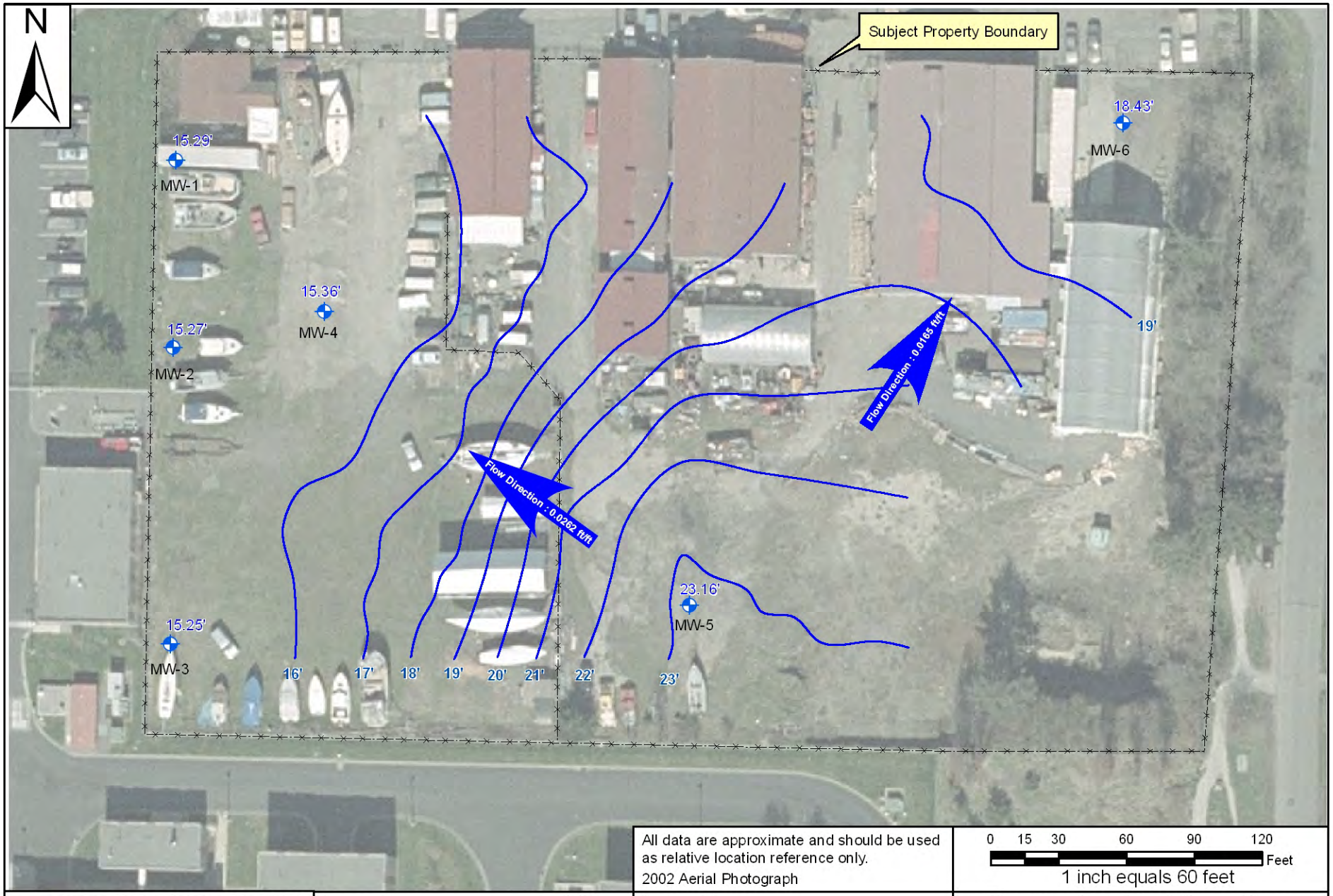
Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevation Contours - 12/6/07

210 McKenzie Remediation
9/25/08

Figure C-2



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Groundwater Contour (ft) - 3/12/2008
Monitoring Wells
Fenceline
14.00' = Groundwater elevation in well (ft)
14' = Groundwater contour elevation (ft)

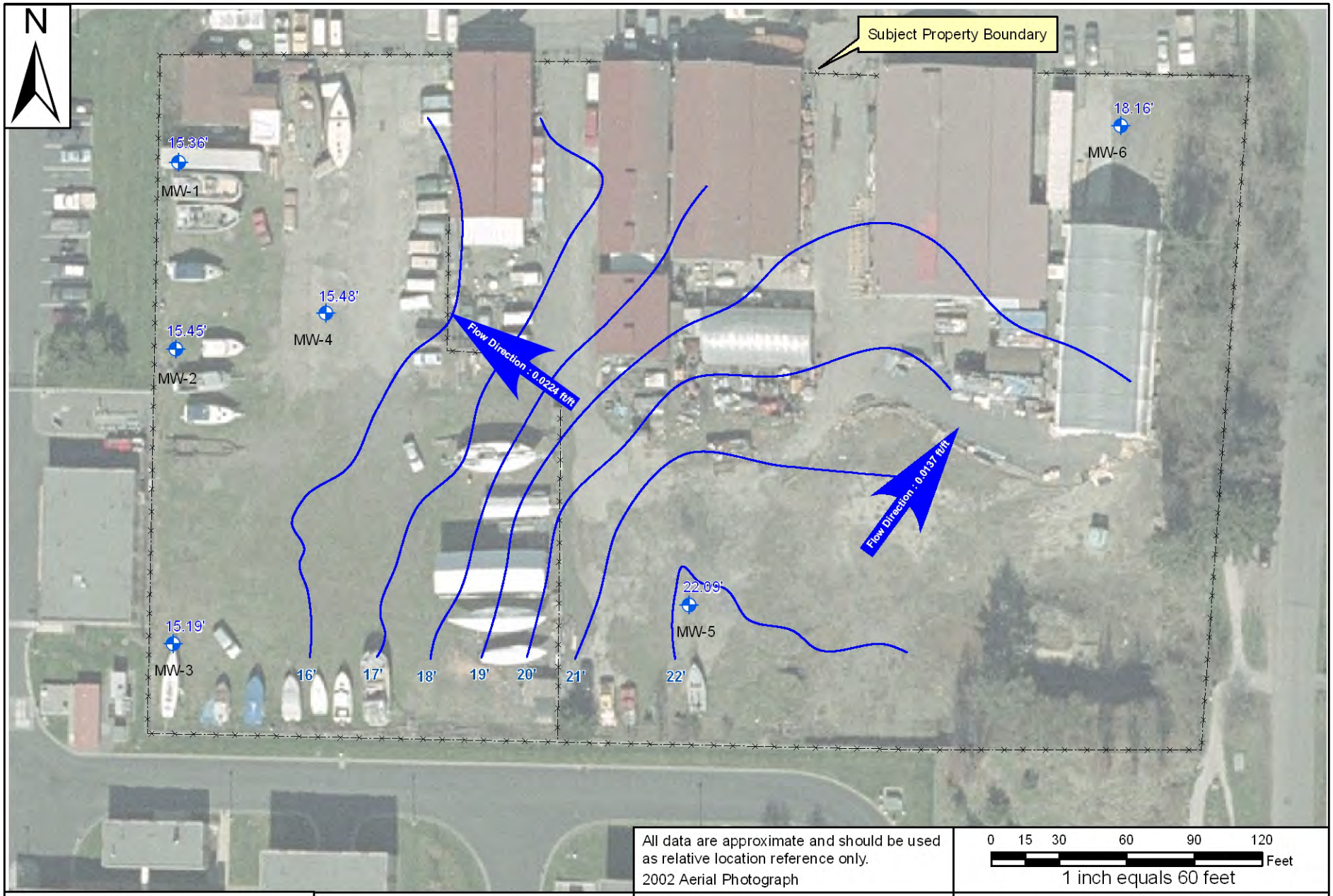
Prepared for:
City of Bellingham

Prepared by:
nwhatcom ENVIRONMENTAL

Groundwater Elevation Contours - 3/12/08

210 McKenzie Remediation
9/25/08

Figure C-3



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Groundwater Contours (ft) - 6/16/2008
Monitoring Wells
Fenceline
14.00' = Groundwater elevation in well (ft)
14' = Groundwater contour elevation (ft)

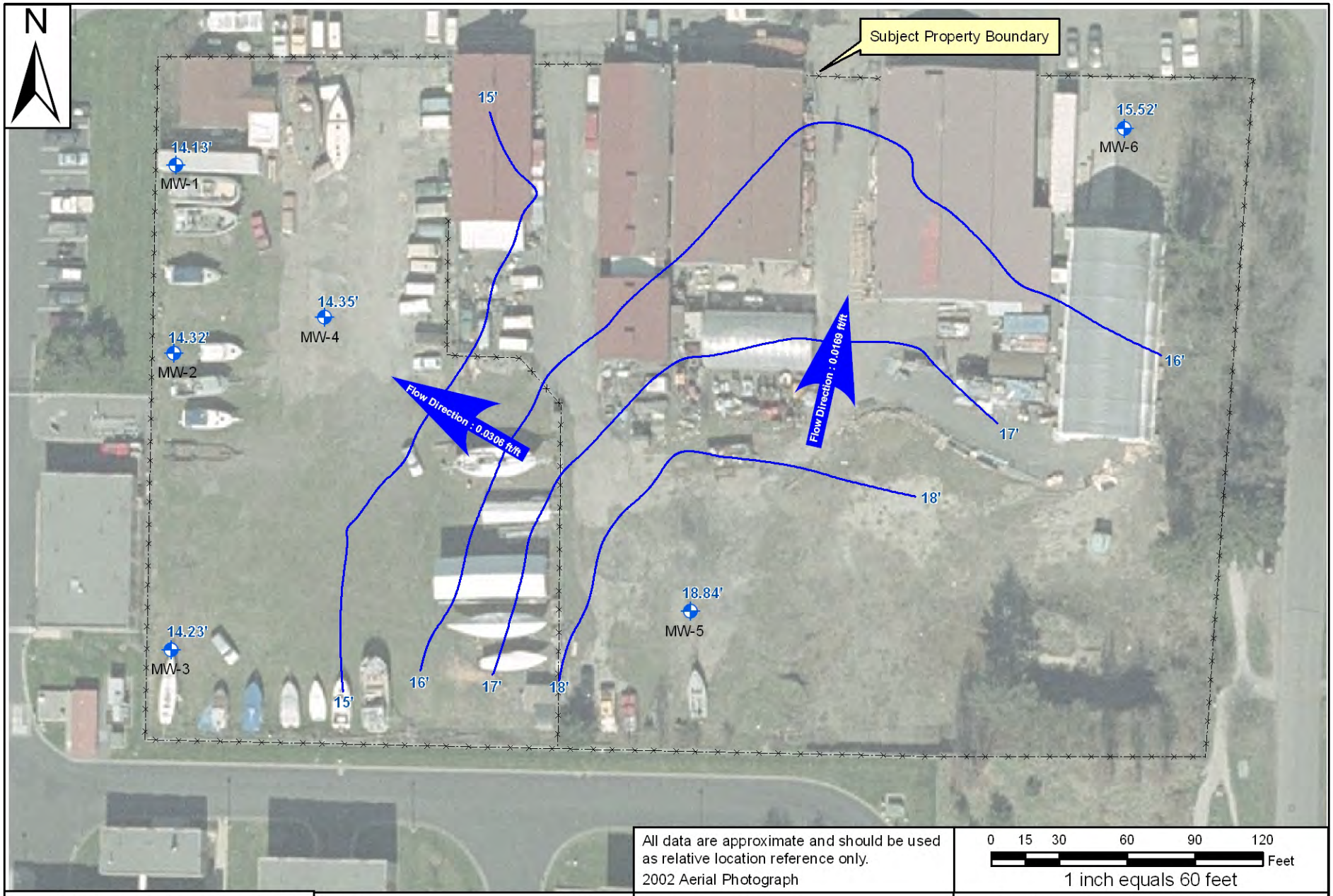
Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevation Contours - 6/16/08

210 McKenzie Remediation
9/25/08

Figure C-4



All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Groundwater Contours (ft) - 9/15/2008
Monitoring Wells
Fenceline
14.00' = Groundwater elevation in well (ft)
14' = Groundwater contour elevation (ft)

Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevation Contours - 9/15/08

210 McKenzie Remediation
9/25/08

Figure C-5

APPENDIX D

Original Groundwater Sample Laboratory Analytical Data

August 2007 Groundwater Data

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 12:40 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 12:40 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 12:40 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	7	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 12:40 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	46	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 13:50 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 13:50 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 13:50 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.03	UG/L	8/8/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.06	UG/L	8/8/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.02	UG/L	8/8/2007	RAL
Acenaphthene	EPA-8270 SIM	0.13	UG/L	8/8/2007	RAL
Fluorene	EPA-8270 SIM	0.08	UG/L	8/8/2007	RAL
Phenanthrene	EPA-8270 SIM	0.17	UG/L	8/8/2007	RAL
Anthracene	EPA-8270 SIM	0.07	UG/L	8/8/2007	RAL
Fluoranthene	EPA-8270 SIM	0.02	UG/L	8/8/2007	RAL
Pyrene	EPA-8270 SIM	0.04	UG/L	8/8/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	11	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 13:50 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 11:25 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	150	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	2	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	4	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	130	UG/L	8/14/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	3	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 11:25 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	3	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 11:25 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.23	UG/L	8/8/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.44	UG/L	8/8/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.32	UG/L	8/8/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthene	EPA-8270 SIM	0.21	UG/L	8/8/2007	RAL
Fluorene	EPA-8270 SIM	0.19	UG/L	8/8/2007	RAL
Phenanthrene	EPA-8270 SIM	0.13	UG/L	8/8/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Pyrene	EPA-8270 SIM	0.03	UG/L	8/8/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 11:25 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL FUEL.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 9:00 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 9:00 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 9:00 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 9:00 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 10:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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P.O. BOX 2715
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DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 10:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 10:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Pyrene	EPA-8270 SIM	0.03	UG/L	8/8/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/8/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 10:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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DATE: 8/21/2007
CCIL JOB #: 0708025
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WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 11:40 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	8/10/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 11:40 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 11:40 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.02	UG/L	8/9/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	8/9/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	8/9/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	4	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/3/2007 11:40 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 15:00 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	8/8/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	8/8/2007	EBS

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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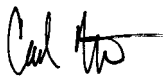

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 14:20 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	8/7/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	8/7/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	8/7/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 14:20 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
M+P Xylene	EPA-8260	ND(<4)	UG/L	8/7/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
O-Xylene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	8/7/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	8/7/2007	GAP
Antimony	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	8/21/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO

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A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 8/2/2007 14:20 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Chromium	EPA-6010	ND(<7)	UG/L	8/17/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	8/17/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	8/17/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	8/8/2007	CEO
Nickel	EPA-6010	ND(<20)	UG/L	8/17/2007	CEO
Selenium	EPA-6010	ND(<40)	UG/L	8/17/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	8/17/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	8/9/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	8/17/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CERTIFICATE OF ANALYSIS

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BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID		METHOD	SUR ID	% RECV
0708025-01		NWTPH-GX	TFT	81
0708025-01		NWTPH-DX W/CLEANUP	C25	98
0708025-01		EPA-8260	1,2-Dichloroethane-d4	91
0708025-01		EPA-8260	Toluene-d8	94
0708025-01		EPA-8260	4-Bromofluorobenzene	104
0708025-01		EPA-8270 SIM	Terphenyl-d14	87
0708025-01		EPA-8082	TCMX	68
0708025-01		EPA-8082	DBC	29
0708025-02		NWTPH-GX	TFT	84
0708025-02		NWTPH-DX W/CLEANUP	C25	97
0708025-02		EPA-8260	1,2-Dichloroethane-d4	90
0708025-02		EPA-8260	Toluene-d8	94
0708025-02		EPA-8260	4-Bromofluorobenzene	107
0708025-02		EPA-8270 SIM	Terphenyl-d14	100
0708025-02		EPA-8082	TCMX	66
0708025-02		EPA-8082	DBC	24
0708025-03		NWTPH-GX	TFT	79
0708025-03		NWTPH-DX W/CLEANUP	C25	93
0708025-03		EPA-8260	1,2-Dichloroethane-d4	90
0708025-03		EPA-8260	Toluene-d8	94
0708025-03		EPA-8260	4-Bromofluorobenzene	103
0708025-03		EPA-8270 SIM	Terphenyl-d14	95
0708025-03		EPA-8082	TCMX	77
0708025-03		EPA-8082	DBC	30
0708025-03	DILUTION	EPA-8260	1,2-Dichloroethane-d4	81
0708025-03	DILUTION	EPA-8260	Toluene-d8	92
0708025-03	DILUTION	EPA-8260	4-Bromofluorobenzene	104
0708025-04		NWTPH-GX	TFT	78
0708025-04		NWTPH-DX W/CLEANUP	C25	93
0708025-04		EPA-8260	1,2-Dichloroethane-d4	92
0708025-04		EPA-8260	Toluene-d8	94
0708025-04		EPA-8260	4-Bromofluorobenzene	108
0708025-04		EPA-8270 SIM	Terphenyl-d14	112
0708025-04		EPA-8082	TCMX	79
0708025-04		EPA-8082	DBC	32
0708025-05		NWTPH-GX	TFT	72
0708025-05		NWTPH-DX W/CLEANUP	C25	102
0708025-05		EPA-8260	1,2-Dichloroethane-d4	91
0708025-05		EPA-8260	Toluene-d8	93
0708025-05		EPA-8260	4-Bromofluorobenzene	106
0708025-05		EPA-8270 SIM	Terphenyl-d14	103
0708025-05		EPA-8082	TCMX	93
0708025-05		EPA-8082	DBC	58
0708025-06		NWTPH-GX	TFT	83
0708025-06		NWTPH-DX W/CLEANUP	C25	96

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 8/21/2007
CCIL JOB #: 0708025
DATE RECEIVED: 8/7/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0708025-06	EPA-8260	1,2-Dichloroethane-d4	97
0708025-06	EPA-8260	Toluene-d8	93
0708025-06	EPA-8260	4-Bromofluorobenzene	102
0708025-06	EPA-8270 SIM	Terphenyl-d14	116
0708025-06	EPA-8082	TCMX	79
0708025-06	EPA-8082	DBC	55
0708025-07	NWTPH-DX W/CLEANUP	C25	98
0708025-08	EPA-8260	1,2-Dichloroethane-d4	93
0708025-08	EPA-8260	Toluene-d8	94
0708025-08	EPA-8260	4-Bromofluorobenzene	105

APPROVED BY:

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CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 708025

Date 8/6/07 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Thom and Harold
ADDRESS: 119 N. Commercial #120
Bham, WA 98225
PHONE: 360-752-9571 FAX: 360-752-9573
P.O. NUMBER: E-MAIL: tdavis@whatcomenv.com
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM X	PCB X Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol X TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	8/2/07	12:40	Water	1		X	X				X				X	X	X				9	
2. MW-2	8/2/07	13:50		2		X	X				X				X	X	X				9	
3. MW-3	8/2/07	11:25		3		X	X				X				X	X	X				9	
4. MW-4	8/3/07	9:00		4		X	X				X				X	X	X				9	
5. MW-5	8/3/07	10:30		5		X	X				X				X	X	X				9	
6. MW-6	8/3/07	11:40		6		X	X				X				X	X	X				9	
7. MW-7	8/2/07	15:00		7		X															9	
8. MW-8	8/2/07	14:20		8							X						X				9	
9.																						
10.																						

SPECIAL INSTRUCTIONS Hold all samples for follow-up Analysis if required

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 8/6/07 15:00
   Received By: CCIAL 8/7/07 13:10
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

December 2007 Groundwater Data

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 9:50 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	12/10/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 9:50 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 9:50 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.02	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	0.02	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	0.02	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 9:50 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	26	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 10:45 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	12/10/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 10:45 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 10:45 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.03	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.05	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.04	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	0.13	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	0.09	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	0.16	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	0.06	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	0.04	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	0.06	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	12	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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DATE: 12/18/2007
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 10:45 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	12	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 11:35 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	64	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	12/10/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	0.4	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	5	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	3	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 11:35 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	3	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 11:35 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.19	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.29	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.18	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.03	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	0.18	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	0.19	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	0.14	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	0.02	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	0.02	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 11:35 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	12/11/2007	CEO

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY HIGHLY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 12:25 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	12/10/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 12:25 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 12:25 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 12:25 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 13:20 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	12/10/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 13:20 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 13:20 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 13:20 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 14:20 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	12/7/2007	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	12/11/2007	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	12/11/2007	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	12/10/2007	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Acetone	EPA-8260	ND(<25)	UG/L	12/10/2007	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	12/10/2007	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
Toluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 14:20 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	12/10/2007	GAP
Styrene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	12/10/2007	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	12/10/2007	GAP

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 14:20 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.03	UG/L	12/10/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	12/10/2007	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	12/12/2007	RAL
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	6	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 14:20 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 15:40 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	12/10/2007	EBS
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	9	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	25	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 12/6/2007 15:00 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	12/10/2007	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	12/10/2007	EBS
Antimony	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	12/13/2007	CEO
Beryllium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Chromium	EPA-6010	ND(<7)	UG/L	12/11/2007	CEO
Copper	EPA-6010	ND(<5)	UG/L	12/11/2007	CEO
Lead	EPA-7421	ND(<3)	UG/L	12/13/2007	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	12/11/2007	ZD
Nickel	EPA-6010	ND(<20)	UG/L	12/11/2007	CEO
Selenium	EPA-6010	ND(<40)	UG/L	12/11/2007	CEO
Silver	EPA-6010	ND(<30)	UG/L	12/11/2007	CEO
Thallium	EPA-7841	ND(<2)	UG/L	12/12/2007	CEO
Zinc	EPA-6010	ND(<10)	UG/L	12/11/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0712048-01	NWTPH-GX	TFT	84
0712048-01	NWTPH-DX	C25	107
0712048-01	EPA-8260	1,2-Dichloroethane-d4	86
0712048-01	EPA-8260	Toluene-d8	106
0712048-01	EPA-8260	4-Bromofluorobenzene	90
0712048-01	EPA-8270 SIM	Terphenyl-d14	109
0712048-01	EPA-8082	TCMX	62
0712048-01	EPA-8082	DBC	76
0712048-02	NWTPH-GX	TFT	83
0712048-02	NWTPH-DX W/CLEANUP	C25	103
0712048-02	EPA-8260	1,2-Dichloroethane-d4	82
0712048-02	EPA-8260	Toluene-d8	103
0712048-02	EPA-8260	4-Bromofluorobenzene	87
0712048-02	EPA-8270 SIM	Terphenyl-d14	111
0712048-02	EPA-8082	TCMX	68
0712048-02	EPA-8082	DBC	65
0712048-03	NWTPH-GX	TFT	96
0712048-03	NWTPH-DX W/CLEANUP	C25	99
0712048-03	EPA-8260	1,2-Dichloroethane-d4	84
0712048-03	EPA-8260	Toluene-d8	101
0712048-03	EPA-8260	4-Bromofluorobenzene	91
0712048-03	EPA-8270 SIM	Terphenyl-d14	103
0712048-03	EPA-8082	TCMX	62
0712048-03	EPA-8082	DBC	59
0712048-04	NWTPH-GX	TFT	78
0712048-04	NWTPH-DX	C25	106
0712048-04	EPA-8260	1,2-Dichloroethane-d4	79
0712048-04	EPA-8260	Toluene-d8	102
0712048-04	EPA-8260	4-Bromofluorobenzene	89
0712048-04	EPA-8270 SIM	Terphenyl-d14	102
0712048-04	EPA-8082	TCMX	69
0712048-04	EPA-8082	DBC	66
0712048-05	NWTPH-GX	TFT	84
0712048-05	NWTPH-DX	C25	104
0712048-05	EPA-8260	1,2-Dichloroethane-d4	79
0712048-05	EPA-8260	Toluene-d8	102
0712048-05	EPA-8260	4-Bromofluorobenzene	83
0712048-05	EPA-8270 SIM	Terphenyl-d14	107
0712048-05	EPA-8082	TCMX	78
0712048-05	EPA-8082	DBC	76
0712048-06	NWTPH-GX	TFT	81
0712048-06	NWTPH-DX W/CLEANUP	C25	107
0712048-06	EPA-8260	1,2-Dichloroethane-d4	78
0712048-06	EPA-8260	Toluene-d8	99
0712048-06	EPA-8260	4-Bromofluorobenzene	87

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DATE: 12/18/2007
CCIL JOB #: 0712048
DATE RECEIVED: 12/7/2007
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0712048-06	EPA-8270 SIM	Terphenyl-d14	111
0712048-06	EPA-8082	TCMX	79
0712048-06	EPA-8082	DBC	77
0712048-07	NWTPH-DX	C25	104
0712048-08	NWTPH-DX	C25	102

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 712048

Date 12/ Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: What[illegible] Environmental Services
PROJECT MANAGER: Thom and Harold
ADDRESS: 11 N. Commerce #120
Bellingham, WA 98225
PHONE: 360-[illegible]571 FAX: 3[illegible]752 9573
P.O. NUMBER: E-MAIL: [illegible]
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☒ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	12/6/07	9:50		1		x	x				x				x	x	x				9	
2. MW-2	12/6/07	10:45		2		x	x				x				x	x	x				9	
3. MW-3	12/6/07	11:35		3		x	x				x				x	x	x				9	
4. MW-4	12/6/07	12:25		4		x	x				x				x	x	x				9	
5. MW-5	12/6/07	1:20		5		x	x				x				x	x	x				9	
6. MW-6	12/6/07	2:20		6		x	x				x				x	x	x				9	
7. MW-7	12/6/07	3:40		7		x											x				2	
8. MW-8	12/6/07	3:00		8		x											x				2	
9.																						
10.																						

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [illegible] WES 12/6/07 16:10
Received By: Shawn Kobuna CCIAC 12/7/07 12:40
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

March 2008 Groundwater Data

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 10:30 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 10:30 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 10:30 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	7	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 10:30 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	33	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 11:25 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
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CCIL JOB #: 0803077
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 11:25 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 11:25 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.05	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	0.10	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	0.08	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	0.13	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	0.05	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	0.02	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	0.04	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	15	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 11:25 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 12:20 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	4	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	3	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 12:20 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	3	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 12:20 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.12	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.31	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.15	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	0.21	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	0.23	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	0.15	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 12:20 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 13:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 13:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 13:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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DATE: 3/26/2008
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 13:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 14:25 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 14:25 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 14:25 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 14:25 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 15:25 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	3/14/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	3/14/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	3/14/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	3/14/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 15:25 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	3/14/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	3/14/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	3/14/2008	GAP

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 15:25 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	3/13/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.13	UG/L	3/13/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	3/17/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	5	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 15:25 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/12/2008 12:50 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/13/2008	DLC
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	3/14/2008	EBS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/13/2008 8:00 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX W/ CLEANUP	ND(<130)	UG/L	3/14/2008	EBS
TPH-Oil Range	NWTPH-DX W/ CLEANUP	ND(<250)	UG/L	3/14/2008	EBS
Antimony	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Arsenic	EPA-7060	ND(<4)	UG/L	3/19/2008	BAM
Beryllium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Cadmium	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Chromium	EPA-6010	ND(<7)	UG/L	3/17/2008	CEO
Copper	EPA-6010	ND(<5)	UG/L	3/17/2008	CEO
Lead	EPA-7421	ND(<3)	UG/L	3/18/2008	CEO
Mercury	EPA-7470	ND(<0.2)	UG/L	3/17/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	3/17/2008	CEO
Selenium	EPA-6010	ND(<40)	UG/L	3/17/2008	CEO
Silver	EPA-6010	ND(<30)	UG/L	3/17/2008	CEO
Thallium	EPA-6010	ND(<100)	UG/L	3/17/2008	CEO
Zinc	EPA-6010	ND(<10)	UG/L	3/17/2008	CEO

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CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0803077-01	NWTPH-GX	TFT	97
0803077-01	NWTPH-DX	C25	102
0803077-01	EPA-8260	1,2-Dichloroethane-d4	106
0803077-01	EPA-8260	Toluene-d8	96
0803077-01	EPA-8260	4-Bromofluorobenzene	100
0803077-01	EPA-8270 SIM	Terphenyl-d14	99
0803077-01	EPA-8082	TCMX	79
0803077-01	EPA-8082	DBC	86
0803077-02	NWTPH-GX	TFT	88
0803077-02	NWTPH-DX W/ CLEANUP	C25	110
0803077-02	EPA-8260	1,2-Dichloroethane-d4	109
0803077-02	EPA-8260	Toluene-d8	95
0803077-02	EPA-8260	4-Bromofluorobenzene	101
0803077-02	EPA-8270 SIM	Terphenyl-d14	94
0803077-02	EPA-8082	TCMX	78
0803077-02	EPA-8082	DBC	78
0803077-03	NWTPH-GX	TFT	97
0803077-03	NWTPH-DX W/ CLEANUP	C25	113
0803077-03	EPA-8260	1,2-Dichloroethane-d4	115
0803077-03	EPA-8260	Toluene-d8	96
0803077-03	EPA-8260	4-Bromofluorobenzene	98
0803077-03	EPA-8270 SIM	Terphenyl-d14	98
0803077-03	EPA-8082	TCMX	83
0803077-03	EPA-8082	DBC	81
0803077-04	NWTPH-GX	TFT	89
0803077-04	NWTPH-DX	C25	103
0803077-04	EPA-8260	1,2-Dichloroethane-d4	112
0803077-04	EPA-8260	Toluene-d8	93
0803077-04	EPA-8260	4-Bromofluorobenzene	93
0803077-04	EPA-8270 SIM	Terphenyl-d14	98
0803077-04	EPA-8082	TCMX	80
0803077-04	EPA-8082	DBC	89
0803077-05	NWTPH-GX	TFT	88
0803077-05	NWTPH-DX	C25	104
0803077-05	EPA-8260	1,2-Dichloroethane-d4	114
0803077-05	EPA-8260	Toluene-d8	94
0803077-05	EPA-8260	4-Bromofluorobenzene	101
0803077-05	EPA-8270 SIM	Terphenyl-d14	96
0803077-05	EPA-8082	TCMX	80
0803077-05	EPA-8082	DBC	84
0803077-06	NWTPH-GX	TFT	83
0803077-06	NWTPH-DX W/ CLEANUP	C25	104
0803077-06	EPA-8260	1,2-Dichloroethane-d4	113
0803077-06	EPA-8260	Toluene-d8	97
0803077-06	EPA-8260	4-Bromofluorobenzene	99

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/26/2008
CCIL JOB #: 0803077
DATE RECEIVED: 3/13/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0803077-06	EPA-8270 SIM	Terphenyl-d14	102
0803077-06	EPA-8082	TCMX	73
0803077-06	EPA-8082	DBC	86
0803077-07	NWTPH-GX	TFT	84
0803077-07	NWTPH-DX W/ CLEANUP	C25	111
0803077-08	NWTPH-DX W/ CLEANUP	C25	124

APPROVED BY:

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CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 803077

Date 3-13- Page 1 Of

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Thom and Harold
ADDRESS: 119 N. Commercial #120
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: thom@...

INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☒ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	3/12/08	10:30	W	1		X	X				X				X	X	X			9	
2. MW-2		11:25		2		X	X				X				X	X	X			9	
3. MW-3		12:20		3		X	X				X				X	X	X			9	
4. MW-4		13:30		4		X	X				X				X	X	X			9	
5. MW-5		14:25		5		X	X				X				X	X	X			9	
6. MW-6		15:25		6		X	X				X				X	X	X			9	
7. MW-7		12:50		7		X	X													4	
8. MW-8	3/13/08	8:00		8		X											X			2	
9.																					
10.																					

OTHER (Specify)

REPORT COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 3/13/08 8:30
Received By: Shawn Kolesar CCIAL 3/13/08 1300
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

June 2008 Groundwater Data

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 10:10 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 10:10 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 10:10 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 10:10 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
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DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 11:10 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 11:10 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 11:10 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.05	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	0.10	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	0.09	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	0.14	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	0.06	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	0.03	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	0.05	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	6	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CLIENT CONTACT: THOM DAVIS
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CLIENT SAMPLE ID: 6/16/2008 11:10 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 12:10 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	1.1	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	4	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	4	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 12:10 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	3	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CLIENT SAMPLE ID: 6/16/2008 12:10 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.14	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.34	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.16	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	0.23	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	0.25	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	0.18	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	0.02	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	4	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CLIENT SAMPLE ID: 6/16/2008 12:10 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 13:10 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 13:10 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 13:10 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 13:10 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 14:10 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 14:10 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CLIENT SAMPLE ID: 6/16/2008 14:10 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 14:10 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 15:10 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	6/19/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	6/19/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	6/19/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 15:10 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	6/19/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	6/19/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	6/19/2008	GAP

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DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 15:10 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	6/18/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	6/23/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 15:10 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 15:45 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

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DATE: 7/8/2008
CCIL JOB #: 0806101
DATE RECEIVED: 6/17/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/16/2008 16:20 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Antimony	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	7/7/2008	SL
Beryllium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	6/18/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	6/18/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	6/24/2008	BAM
Mercury	EPA-7470	ND(<0.2)	UG/L	7/8/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	6/18/2008	BAM
Selenium	EPA-6010	ND(<40)	UG/L	6/18/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	6/18/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	7/7/2008	SL
Zinc	EPA-6010	ND(<10)	UG/L	6/18/2008	BAM

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0806101-01	NWTPH-GX	TFT	88
0806101-01	NWTPH-DX	C25	78
0806101-01	EPA-8260	1,2-Dichloroethane-d4	99
0806101-01	EPA-8260	Toluene-d8	102
0806101-01	EPA-8260	4-Bromofluorobenzene	102
0806101-01	EPA-8270 SIM	Terphenyl-d14	111
0806101-01	EPA-8082	TCMX	98
0806101-01	EPA-8082	DBC	102
0806101-02	NWTPH-GX	TFT	95
0806101-02	NWTPH-DX W/CLEANUP	C25	78
0806101-02	EPA-8260	1,2-Dichloroethane-d4	108
0806101-02	EPA-8260	Toluene-d8	100
0806101-02	EPA-8260	4-Bromofluorobenzene	102
0806101-02	EPA-8270 SIM	Terphenyl-d14	105
0806101-02	EPA-8082	TCMX	87
0806101-02	EPA-8082	DBC	93
0806101-03	NWTPH-GX	TFT	96
0806101-03	NWTPH-DX W/CLEANUP	C25	80
0806101-03	EPA-8260	1,2-Dichloroethane-d4	107
0806101-03	EPA-8260	Toluene-d8	101
0806101-03	EPA-8260	4-Bromofluorobenzene	103
0806101-03	EPA-8270 SIM	Terphenyl-d14	111
0806101-03	EPA-8082	TCMX	99
0806101-03	EPA-8082	DBC	104
0806101-04	NWTPH-GX	TFT	96
0806101-04	NWTPH-DX W/CLEANUP	C25	83
0806101-04	EPA-8260	1,2-Dichloroethane-d4	107
0806101-04	EPA-8260	Toluene-d8	102
0806101-04	EPA-8260	4-Bromofluorobenzene	102
0806101-04	EPA-8270 SIM	Terphenyl-d14	115
0806101-04	EPA-8082	TCMX	82
0806101-04	EPA-8082	DBC	90
0806101-05	NWTPH-GX	TFT	80
0806101-05	NWTPH-DX W/CLEANUP	C25	84
0806101-05	EPA-8260	1,2-Dichloroethane-d4	109
0806101-05	EPA-8260	Toluene-d8	102
0806101-05	EPA-8260	4-Bromofluorobenzene	100
0806101-05	EPA-8270 SIM	Terphenyl-d14	111
0806101-05	EPA-8082	TCMX	117
0806101-05	EPA-8082	DBC	127
0806101-06	NWTPH-GX	TFT	100
0806101-06	NWTPH-DX W/CLEANUP	C25	87
0806101-06	EPA-8260	1,2-Dichloroethane-d4	108
0806101-06	EPA-8260	Toluene-d8	101
0806101-06	EPA-8260	4-Bromofluorobenzene	102

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CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0806101-06	EPA-8270 SIM	Terphenyl-d14	116
0806101-06	EPA-8082	TCMX	97
0806101-06	EPA-8082	DBC	105

APPROVED BY:

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Everett, WA 98208
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(425) 356-2626 Fax
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Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 806101

Date 6-17-08 Page 1 Of 1

PROJECT ID: 210 Mckenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Thom
ADDRESS: 119 N. Commercial #120
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☒	PCB ☒ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	6/16/08	10:10	Water	1		X	X				X				X	X	X			9	
2. MW-2		11:10		2		X	X				X				X	X	X			9	
3. MW-3		12:10		3		X	X				X				X	X	X			9	
4. MW-4		13:10		4		X	X				X				X	X	X			9	
5. MW-5		14:10		5		X	X				X				X	X	X			9	
6. MW-6		15:10		6		X	X				X				X	X	X			9	
7. MW-7		15:45		7													X			1	
8. MW-8		16:20		8													X			1	
9.																					
10.																					

ANALYSIS REQUESTED

OTHER (Specify)

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WFS 6-17-08 08:15
Received By: Shawn Robinson CCIAL 6/17/08 12:40
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

September 2008 Groundwater Data

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A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 11:15 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 11:15 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 11:15 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 11:15 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	22	UG/L	9/17/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 12:30 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 12:30 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 12:30 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.04	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	0.02	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	0.11	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	0.09	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	0.16	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	0.07	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	0.04	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	0.06	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	20	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 12:30 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 13:30 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	77	UG/L	9/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	5.7	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	18	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	2	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	5	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 13:30 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	7	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	2	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	2	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 13:30 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	0.18	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	0.34	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.17	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	0.28	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	0.30	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	0.16	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	0.03	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 13:30 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED GASOLINE.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 14:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/18/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	9/17/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	9/17/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 14:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 14:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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DATE: 9/30/2008
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DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 14:30 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 15:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/18/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
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BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 15:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 15:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 15:30 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 16:45 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/19/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Dichlorodifluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Vinyl Chloride	EPA-8260	ND(<0.2)	UG/L	9/22/2008	GAP
Bromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichlorofluoromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Acetone	EPA-8260	ND(<25)	UG/L	9/22/2008	GAP
1,1-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Methylene Chloride	EPA-8260	ND(<5)	UG/L	9/22/2008	GAP
Acrylonitrile	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Methyl T-Butyl Ether	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Butanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chloroform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Carbon Tetrachloride	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trichloroethene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromomethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromodichloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Methyl-2-Pentanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
Toluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 16:45 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
1,1,2-Trichloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Hexanone	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,3-Dichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Tetrachloroethylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Dibromochloromethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromoethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Chlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Ethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
m,p-Xylene	EPA-8260	ND(<4)	UG/L	9/22/2008	GAP
Styrene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
o-Xylene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromoform	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Isopropylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichloropropane	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Bromobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Propyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
2-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
4-Chlorotoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
T-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
S-Butyl Benzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
P-Isopropyltoluene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,3 Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,4-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
N-Butylbenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND(<10)	UG/L	9/22/2008	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Hexachlorobutadiene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
Naphthalene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND(<2)	UG/L	9/22/2008	GAP

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 16:45 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Acenaphthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluorene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Phenanthrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Chrysene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND(<0.02)	UG/L	9/19/2008	RAL
PCB-1016	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1221	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1232	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1242	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1248	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1254	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
PCB-1260	EPA-8082	ND(<0.1)	UG/L	9/19/2008	RAL
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	12	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 16:45 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 11:30 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/19/2008	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	9/18/2008	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	9/18/2008	EBS
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/17/2008	ARI
Zinc	EPA-6010	16	UG/L	9/17/2008	BAM

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APPROVED BY:

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DATE: 9/30/2008
CCIL JOB #: 0809076
DATE RECEIVED: 9/16/2008
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 9/15/2008 17:30 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	9/19/2008	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	9/17/2008	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	9/17/2008	EBS
Antimony	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Arsenic	EPA-7060	ND(<4)	UG/L	9/30/2008	ARI
Beryllium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Cadmium	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Chromium	EPA-6010	ND(<7)	UG/L	9/17/2008	BAM
Copper	EPA-6010	ND(<5)	UG/L	9/17/2008	BAM
Lead	EPA-7421	ND(<3)	UG/L	9/30/2008	ARI
Mercury	EPA-7470	ND(<0.2)	UG/L	9/30/2008	BAM
Nickel	EPA-6010	ND(<20)	UG/L	9/17/2008	BAM
Selenium	EPA-6010	ND(<40)	UG/L	9/17/2008	BAM
Silver	EPA-6010	ND(<30)	UG/L	9/17/2008	BAM
Thallium	EPA-7841	ND(<2)	UG/L	9/30/2008	ARI
Zinc	EPA-6010	ND(<10)	UG/L	9/17/2008	BAM

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CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0809076-01	NWTPH-GX	TFT	102
0809076-01	NWTPH-DX W/CLEANUP	C25	81
0809076-01	EPA-8260	1,2-Dichloroethane-d4	97
0809076-01	EPA-8260	Toluene-d8	100
0809076-01	EPA-8260	4-Bromofluorobenzene	109
0809076-01	EPA-8270 SIM	Terphenyl-d14	119
0809076-01	EPA-8082	TCMX	76
0809076-01	EPA-8082	DBC	88
0809076-02	NWTPH-GX	TFT	110
0809076-02	NWTPH-DX W/CLEANUP	C25	81
0809076-02	EPA-8260	1,2-Dichloroethane-d4	96
0809076-02	EPA-8260	Toluene-d8	99
0809076-02	EPA-8260	4-Bromofluorobenzene	106
0809076-02	EPA-8270 SIM	Terphenyl-d14	121
0809076-02	EPA-8082	TCMX	114
0809076-02	EPA-8082	DBC	140
0809076-03	NWTPH-GX	TFT	120
0809076-03	NWTPH-DX W/CLEANUP	C25	80
0809076-03	EPA-8260	1,2-Dichloroethane-d4	106
0809076-03	EPA-8260	Toluene-d8	100
0809076-03	EPA-8260	4-Bromofluorobenzene	108
0809076-03	EPA-8270 SIM	Terphenyl-d14	119
0809076-03	EPA-8082	TCMX	84
0809076-03	EPA-8082	DBC	95
0809076-04	NWTPH-GX	TFT	110
0809076-04	NWTPH-DX	C25	77
0809076-04	EPA-8260	1,2-Dichloroethane-d4	106
0809076-04	EPA-8260	Toluene-d8	101
0809076-04	EPA-8260	4-Bromofluorobenzene	111
0809076-04	EPA-8270 SIM	Terphenyl-d14	125
0809076-04	EPA-8082	TCMX	90
0809076-04	EPA-8082	DBC	92
0809076-05	NWTPH-GX	TFT	102
0809076-05	NWTPH-DX W/CLEANUP	C25	80
0809076-05	EPA-8260	1,2-Dichloroethane-d4	108
0809076-05	EPA-8260	Toluene-d8	98
0809076-05	EPA-8260	4-Bromofluorobenzene	111
0809076-05	EPA-8270 SIM	Terphenyl-d14	125
0809076-05	EPA-8082	TCMX	75
0809076-05	EPA-8082	DBC	88
0809076-06	NWTPH-GX	TFT	113
0809076-06	NWTPH-DX W/CLEANUP	C25	84
0809076-06	EPA-8260	1,2-Dichloroethane-d4	103
0809076-06	EPA-8260	Toluene-d8	102
0809076-06	EPA-8260	4-Bromofluorobenzene	114

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CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0809076-06	EPA-8270 SIM	Terphenyl-d14	129
0809076-06	EPA-8082	TCMX	88
0809076-06	EPA-8082	DBC	100
0809076-07	NWTPH-GX	TFT	98
0809076-07	NWTPH-DX W/CLEANUP	C25	85
0809076-08	NWTPH-GX	TFT	92
0809076-08	NWTPH-DX	C25	90

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 809076

Date 9/16/08 Page 1 Of 1

PROJECT ID: 210 . McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGERS: Thom - Harold
ADDRESS: PO Box 2715
B'ham, WA 98227
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-1	9/15/08	11:15	water	1
2. MW-2		12:30		2
3. MW-3		13:30		3
4. MW-4		14:30		4
5. MW-5		15:30		5
6. MW-6		16:45		6
7. MW-7		11:30		7
8. MW-8		17:30		8
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260 ✓	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐ ✓	PCB ☒ Pesticides ☐ by EPA 8081/8082 ✓	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☒ TAL ☐ ✓	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1	X	X				X	1			X	X	X			9	
2	X	X				X				X	X	X			9	
3	X	X				X				X	X	X			9	
4	X	X				X				X	X	X			9	
5	X	X				X				X	X	X			9	
6	X	X				X				X	X	X			9	
7	X	X										X			7	
8	X	X										X			7	

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 9/16/08 8:22
Received By: Shawn Robinson CCIAL 9/16/08 2:00
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

2009 GROUNDWATER MONITORING REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FACILITY SITE ID #151016)

prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

March 15, 2010

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2009 GROUNDWATER MONITORING REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FACILITY SITE ID #151016)

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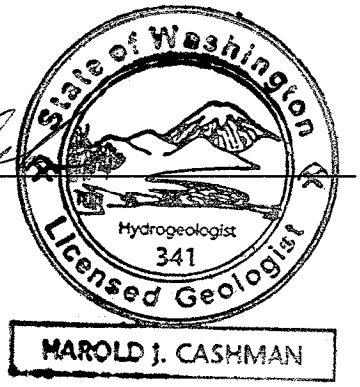
March 15, 2010



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EXECUTIVE SUMMARY

Quarterly groundwater monitoring was conducted in 2009 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by The City of Bellingham and is located adjacent to the Post Point Waste Water Treatment Plant. The site has been assigned a Facility Site ID Number of 151016 by the Washington Department of Ecology. The site was entered into the Voluntary Cleanup Program (VCP) in 2009 and assigned VCP Number NW2179.

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds. Groundwater in the vicinity of wells MW-2 and MW-6 contains dissolved arsenic at concentrations which exceed the Model Toxics Control Act (MTCA) Method A target cleanup level for arsenic. The wells yielded relatively consistent arsenic detections over the monitoring period. Arsenic has been detected at an average study concentration of 13.5 ug/L in monitoring well MW-2 and 7.5 ug/L in MW-6 since groundwater monitoring began in 2007. Arsenic was detected below the MTCA Method A cleanup level in wells MW-1, MW-3, and MW-5.

The source of the arsenic detected in wells MW-2 and MW-6 is unknown. The arsenic detections could be the result of past uses of the property or they could be the result of natural causes. Groundwater from each of the impacted wells has low oxidation-reduction potential, indicating reducing conditions. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic mobilization in groundwater (Welch et. al, 2000)

1.0 INTRODUCTION

This report summarizes the quarterly groundwater monitoring conducted in 2009 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by The City of Bellingham and is located adjacent to the Post Point Waste Water Treatment Plant. The location of the subject property is shown on Figure 1.

The regulatory driver for the remedial investigation of the property is the MTCA Cleanup Regulation Chapter 173-340 (Ecology, 2007). The site is being investigated and remediated under the Voluntary Cleanup Program (VCP).

The scope of the investigation consists of quarterly collection and analyses of groundwater samples from six groundwater monitoring wells installed at the site. The current monitoring well system consists of wells MW-1 through MW-6 which were installed in 2007. The well locations are shown on Figure 2. The wells are screened from approximately 5 to 15 feet below grade. Groundwater samples were collected for four consecutive quarters in March, June, September, and November using a low-flow sample collection method (USEPA, 1998). Dissolved arsenic has been detected above the MTCA Method A target cleanup level in two of the six monitoring wells installed in a zone of perched groundwater at the site.

The groundwater monitoring was conducted by Whatcom Environmental Services on behalf of the City of Bellingham. This report includes a description of groundwater monitoring work completed in 2009 and supplements data presented in a report submitted to Ecology on February 11, 2009 titled *Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016).*

2.0 GROUNDWATER MONITORING

Quarterly groundwater monitoring continued at 210 McKenzie Avenue during 2009. Groundwater samples were collected from six groundwater monitoring wells in order to evaluate groundwater quality at the property. Several analytical parameters were added to the groundwater sample analyte list in 2009. Ferric iron (Fe^{3+}), ferrous iron (Fe^{2+}), methane, phosphate, sulfate, sulfide, and total organic carbon (TOC) were added to the groundwater analyte list to evaluate the mobilization of arsenic from either natural or anthropogenic sources.

Ferric and ferrous irons (iron oxides) were added because iron is the most common arsenic bearing mineral (Welch, et al, 2000) and adsorbed arsenic may be released by the reduction of ferric iron (Fe^{III}) to ferrous iron (Fe^{II}) (Kirk, et al, 2004).

Methane was added because it has been shown to be produced when arsenic levels are elevated (Kirk, et al, 2004).

Phosphate was added because it has a similar geochemical behavior to arsenate (As(V)) and may de-sorb arsenic from iron oxide surfaces (USGS, 1999).

Sulfate and sulfide were added because it has been shown that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004).

TOC was added because both naturally occurring and anthropogenic carbon sources may influence the release of arsenic from iron through dissimilatory-iron reduction (Welch, et al, 2000).

2.1 GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected for laboratory analysis on March 4, June 4, September 2, and November 18, 2009. A low-flow sampling technique, recommended and approved by the U.S. Environmental Protection Agency (USEPA, 1998), was used to sample each monitoring well. The low-flow sampling technique minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. A Horiba Model U22-XD multi-parameter

water meter was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected when the water chemistry parameters stabilized.

Groundwater samples were collected in sample bottles provided by the analytical laboratory and stored on ice in a cooler immediately after collection. The sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler's name, and the analysis requested. Groundwater samples were identified by the monitoring well identification number. One duplicate sample and one equipment blank sample were also collected during each sampling event. Duplicate samples were identified as MW-7, and equipment blank samples were identified as MW-8. Common industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor. Depth to water in each well was measured from a marked location on the top of the PVC well casing with an electronic well probe and recorded in the field notebook. Depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the site. The data indicate that the groundwater flows in a northwesterly direction on the western portion of the property and in a northeasterly direction on the eastern portion of the property. The groundwater elevation data and groundwater surface contours for each quarterly sampling event are included in Appendix A.

2.2 GROUNDWATER SAMPLE RESULTS

Groundwater samples were analyzed for gasoline, diesel, and lube-oil range total petroleum hydrocarbons (TPH) using Methods NWTPH-Gx and NWTPH-Dx, respectively; benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) using EPA Method 8021; and dissolved arsenic using EPA Method 7060. Samples were also analyzed for total dissolved iron (EPA 6010), methane (RSK-175), phosphate (EPA 300.0), sulfate (EPA 300.0), sulfide (EPA 376.1), and total organic carbon (TOC) (SM5310B) in order to explore the relationship between those parameters and arsenic mobilization in the site groundwater. The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology. All samples were analyzed within the prescribed holding times, and the equipment blank and duplicate sample results were within acceptable limits.

Groundwater analytical data for each monitoring well, duplicate sample (MW-7) and equipment blank sample (MW-8) are summarized in Tables 1 and 2. The original laboratory analytical data reports are provided in Appendix B.

2.2.1 Total Petroleum Hydrocarbons

No gasoline or diesel range TPH, BTEX constituents, or MTBE were detected in groundwater samples collected from wells MW-1, MW-2, MW-4, MW-5, or MW-6 in 2009. Low concentrations of gasoline and diesel range TPH and BTEX constituents were detected sporadically throughout the year in well MW-3. The TPH and BTEX concentrations detected in well MW-3 did not exceed the MTCA Method A target cleanup levels. TPH and BTEX analytical results are summarized in Table 1.

2.2.2 Arsenic

Total dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in wells MW-2 and MW-6 during each quarter of 2009. Low levels of arsenic were detected in wells MW-1, MW-3, and MW-5 at concentrations below the MTCA Method A target cleanup level. Arsenic was not detected in well MW-4. Arsenic analytical results are summarized in Table 2.

2.2.3 Iron

Total dissolved iron was detected at elevated concentrations in wells MW-1 through MW-3 and MW-6 during each quarter of 2009 (Table 2). The iron concentration in well MW-1 began the year near zero, spiked up to 22,000 ug/L in the third quarter, then fell back to near zero by the fourth quarter. Iron concentrations in well MW-2 ranged from 24,000 to 27,000 ug/L and remained relatively stable throughout the year. Iron concentrations in well MW-3 ranged from 35,000 to 40,000 ug/L and remained relatively stable throughout the year. Iron was detected at a low concentration in well MW-5 during the second quarter only. No iron was detected in well MW-4 during 2009. Iron concentrations in well MW-6 ranged from 7,500 to 21,000 ug/L. The concentrations of iron in MW-6 spiked in the third quarter and fell sharply by the fourth quarter.

2.2.4 Methane

Methane was detected in wells MW-1 through MW-3 and MW-6 in 2009 (Table 2). The highest concentrations were detected in well MW-3, a well not showing elevated arsenic. However, MW-3 is the only well showing low-level concentrations of TPH and BTEX constituents and the high concentrations of methane is most likely related to bio-degradation of hydrocarbons. The next highest concentrations of methane were detected in both MW-2 and MW-6, the arsenic bearing wells.

2.2.5 Phosphate

Phosphate was not detected in any monitoring well during 2009 (Table 2). A minor detection at the reporting limit was detected in the duplicate sample collected at MW-3 in the second quarter.

2.2.6 Sulfate/Sulfide

Sulfate was detected in each monitoring well during 2009 (Table 2). The highest concentration of sulfate was found in well MW-4 and the lowest concentration was in both MW-2 and MW-6, the wells showing elevated concentrations of arsenic. This evidence appears to confirm the finding that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004). Low concentrations of sulfide were detected in wells MW-3 and MW-6.

2.2.7 Total Organic Carbon

Total organic carbon was detected in every monitoring well during 2009 (Table 2). The highest concentrations were detected in well MW-3, the well containing low levels of TPH and BTEX constituents. The next highest concentrations (in descending order) were detected in MW-6, MW-2, and MW-1. MW-5, the site background well, had the lowest concentrations of TOC throughout the year.

2.2.8 Water Quality Indicator Parameters

The final water quality indicator parameter measurements for each well collected prior to sample collection are shown on Table 3. The data revealed that groundwater beneath the site is generally low in oxygen, indicating anaerobic conditions. Oxygen concentrations in the wells

were generally less than 1 mg/L, with the exception of well MW-5. The data indicate that groundwater beneath the site has a relatively neutral pH. The oxidation-reduction potential in wells MW-1, MW-2, MW-3, and MW-6 was low, indicating reducing conditions exist in the groundwater at those locations.

3.0 DISCUSSION

Three years of groundwater monitoring have revealed that arsenic is the main constituent of concern in groundwater at the site. The highest concentrations of arsenic appear to be generally correlated with the lowest groundwater surface elevations and the highest groundwater temperatures. Those conditions tend to occur in the late fall which is corroborated in the limited data set generated to date. Samples collected in September generally have an increased concentration of arsenic compared to those collected in March. This direct proportionality to temperature agrees with experiments conducted to assess the adsorption and desorption of arsenic from soil particles (Tyrovola and Nikolaidis, 2009).

The wells in which high concentrations of arsenic have been detected tend to have more negative oxidation/reduction potential (ORP) values. The collected data generally shows that when the ORP values are increasing (becoming more positive), arsenic values decrease and when ORP values are decreasing (becoming more negative), arsenic concentrations increase. Negative ORP indicates a reducing environment. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release (Welch et. al, 2000).

Dissolved iron concentrations are correlated with elevated concentrations of arsenic in wells MW-2 and MW-6. Elevated concentrations of iron are also correlated to the lowest groundwater levels in a similar fashion as the arsenic concentrations. The highest concentrations of iron are found in the wells located on the western side of the property where the subsurface investigation showed excessive buried waste debris (WES, 2007b). The area near MW-6 did not appear to contain any metal debris that would indicate elevated concentrations of iron. It is unclear why the elevated concentrations of iron in MW-3 do not correlate with elevated arsenic. MW-3 is the only well with low level detections of TPH and BTEX constituents.

Elevated methane concentrations are correlated with elevated concentrations of arsenic in wells MW-2 and MW-6. Arsenic can be released to groundwater under anaerobic groundwater conditions through methanogenesis (Kirk et. al, 2004).

Aspect Consulting of Seattle, Washington conducted an intensive groundwater investigation of the Lummi Island aquifer and concluded that wells with arsenic concentrations that exceed the EPA groundwater quality standard of 10 μg/L were associated with the Padden Member of the Chuckanut Formation (Aspect, 2006). The study found that wells drilled into unconsolidated materials which were located in close proximity to contacts with the Chuckanut Formation were found to have elevated concentrations of arsenic. The Padden Member of the Chuckanut Formation is the geologic unit located adjacent to (uphill) and reportedly beneath the subject property (Lapen, 2000).

4.0 CONCLUSIONS

Quarterly groundwater monitoring was conducted in 2009 at 210 McKenzie Avenue in Bellingham, Washington. Groundwater samples were collected from six groundwater monitoring wells on a quarterly schedule in March, June, September, and November using a low-flow sample collection method (USEPA, 1998).

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds or BTEX constituents. Groundwater in the vicinity of wells MW-2 and MW-6 contains total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. Monitoring wells MW-2 and MW-6 yielded relatively consistent arsenic detections over the monitoring period. Arsenic has been detected at an average study concentration of 13.5 ug/L in monitoring well MW-2 and 7.5 ug/L in MW-6 since groundwater monitoring began in 2007. Arsenic was detected below the MTCA Method A cleanup level in wells MW-1, MW-3, and MW-5.

The source of the arsenic detected in wells MW-2 and MW-6 is unknown. The arsenic detections could be the result of past uses of the property or they could be the result of natural causes.

The groundwater monitoring well system will continue to be monitored on a quarterly schedule in 2010. An arsenic speciation study will also be conducted in an attempt to better define the mechanisms causing the dissolved arsenic detections in MW-2 and MW-6.

5.0 LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by Whatcom Environmental Services is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. Whatcom Environmental Services prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

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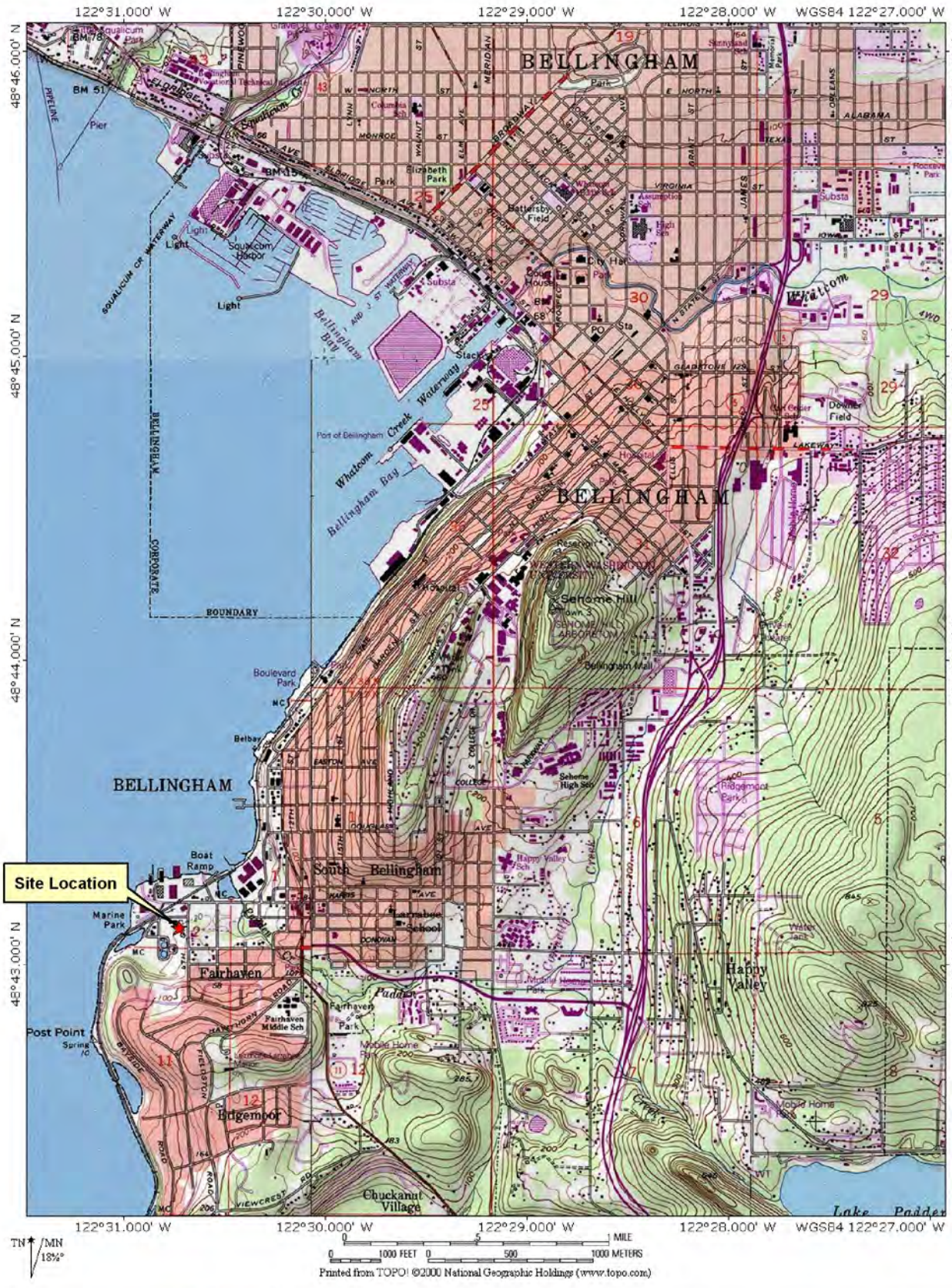

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Site Location Map

210 McKenzie

9/25/08

Figure 1

All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 Feet

1 inch equals 60 feet

- Monitoring Wells
- Catch Basins
- Fence

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Monitoring Well Location Map

210 McKenzie Remediation

12/2/09

Figure 2

Table 1. Laboratory Analytical Data - TPH/BTEX - 210 McKenzie Avenue, Bellingham, WA

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-2								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/04/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-3								
08/02/07	ND(<50)	150	ND(<250)	3	ND(<2)	3	ND	ND(<2)
12/06/07	64	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	ND(<50)	ND(<130)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08	77	ND(<130)	ND(<250)	5	ND(<2)	7	ND	ND(<2)
03/04/09	58	180	ND(<250)	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09	ND(<50)	150	ND(<250)	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 Dup.	ND(<50)	160	ND(<250)	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	76	170	ND(<250)	3.6	7.1	6.1	8.3	ND(<3)
11/18/09	ND(<50)	250	ND(<250)	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-4								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 1. Laboratory Analytical Data - TPH/BTEX - 210 McKenzie Avenue, Bellingham, WA

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-6								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08 Dup.	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-8 (equipment blank)								
08/02/07	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample was not tested for indicated analyte

* - Cleanup level dependent on BTEX concentrations

All duplicate samples were labeled as MW-7 on Chain of Custody forms.

Table 2. Laboratory Analytical Data - Arsenic and Related Compounds - 210 McKenzie Avenue, Bellingham, WA

Well ID	Arsenic	Total Dissolved Iron	Ferrous Iron (Fe^{2+})	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	-120	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	22,000	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	21,000	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	-70	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	27,000	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	27,000	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	24,000	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	25,000	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	24,000	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
MW-3									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	37,000	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09	ND(<5)	35,000	7,600	27,400	16	ND(<0.4)	1.3	0.08	13
06/04/09 Dup.	ND(<5)	35,000	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09	1.7	40,000	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09	2.3	35,000	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	NA	ND(<0.01)	ND(<0.4)	23	NA	3.4
06/04/09	ND(<5)	ND(<100)	200	NA	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	NA	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	NA	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA

Table 2. Laboratory Analytical Data - Arsenic and Related Compounds - 210 McKenzie Avenue, Bellingham, WA

Well ID	Arsenic	Total Dissolved Iron	Ferrous Iron (Fe^{2+})	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	NA	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	-640	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	NA	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	NA	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	14,000	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	16,000	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	21,000	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
MW-8 (equipment blank)									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09	ND(<5)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample was not tested for indicated analyte

Bold - Concentration exceeded MTCA Method A cleanup level

All duplicate samples were labeled as MW-7 on Chain of Custody forms.

Table 3. Groundwater Chemistry Parameters - 210 McKenzie Avenue, Bellingham, WA

Well ID	Date	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	8/2/2007	16.63	0.575	0.24	6.87	-125.9
	12/6/2007	9.2	0.475	0.00	6.90	132
	3/12/2008	9.0	0.401	1.71	7.10	136
	6/16/2008	13.0	0.599	*	6.70	28
	9/15/2008	16.1	0.737	*	7.07	-84
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.66	0.497	4.03	6.62	69
	3/4/2009	-	-	0.4	-	-
	6/4/2009	13.33	0.634	1.47	6.27	-39
	9/2/2009	16.98	0.999	1.32	6.55	-113
	11/18/2009	12.04	-	0.00	7.13	33
MW-2	8/2/2007	15.88	0.609	0.13	6.67	-107.2
	12/6/2007	10.8	0.748	0.00	7.00	-115
	3/12/2008	9.1	0.725	0.00	7.40	-166
	6/16/2008	12.4	0.713	*	6.90	-160
	9/15/2008	16.0	0.762	*	6.96	-129
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.83	0.758	3.95	6.94	-132
	3/4/2009	-	-	0.2	-	-
	6/4/2009	14.62	0.727	1.07	6.47	-123
	9/2/2009	17.55	0.999	1.52	6.49	-121
	11/18/2009	11.95	-	0.00	8.50	-113
MW-3	8/2/2007	16.48	1.028	0.16	6.48	-84.2
	12/6/2007	9.7	0.772	0.00	6.70	-87
	3/12/2008	9.5	1.050	0.00	7.20	-154
	6/16/2008	13.2	0.822	*	6.80	-138
	9/15/2008	17.5	1.060	*	6.84	-122
	10/29/2008	-	-	0.10	-	-
	3/4/2009	9.03	0.866	4.06	6.72	-112
	3/4/2009	-	-	0.1	-	-
	6/4/2009	14.22	0.778	0.80	6.32	-104
	9/2/2009	16.97	0.930	1.23	6.34	-102
	11/18/2009	12.34	-	0.00	8.06	-88

Table 3. Groundwater Chemistry Parameters - 210 McKenzie Avenue, Bellingham, WA

Well ID	Date	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-4	8/3/2007	16.98	0.337	2.08	6.46	127.3
	12/6/2007	13.0	0.643	0.00	6.80	100
	3/12/2008	10.3	0.609	0.05	7.10	85
	6/16/2008	14.8	0.540	*	6.80	61
	9/15/2008	18.2	0.592	*	6.84	112
	10/29/2008	-	-	0.20	-	-
	3/4/2009	10.07	0.606	5.03	6.77	105
	3/4/2009	-	-	1.8	-	-
	6/4/2009	15.44	0.507	1.49	6.31	106
	9/2/2009	17.94	0.999	1.27	6.36	119
	11/18/2009	13.34	-	0.28	6.60	118
MW-5	8/3/2007	17.74	0.343	4.85	7.54	84.2
	12/6/2007	10.2	0.412	6.87	7.80	138
	3/12/2008	9.3	0.207	4.22	8.00	79
	6/16/2008	14.5	0.186	*	7.00	76
	9/15/2008	18.3	0.349	*	7.48	111
	10/29/2008	-	-	3.80	-	-
	3/4/2009	8.48	0.213	6.37	7.05	222
	3/4/2009	-	-	4.3	-	-
	6/4/2009	14.86	0.185	1.65	6.33	14
	9/2/2009	17.98	0.503	1.30	6.59	49
	11/18/2009	12.30	0.241	0.04	7.22	29
MW-6	8/3/2007	16.52	0.436	0.19	6.23	16.5
	12/6/2007	10.3	0.394	0.00	6.60	-50
	3/12/2008	9.0	0.413	0.00	6.90	-107
	6/16/2008	13.7	0.426	*	6.30	-85
	9/15/2008	16.5	0.492	*	6.48	-84
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.25	0.333	6.39	6.53	-73
	3/4/2009	-	-	0.4	-	-
	6/4/2009	13.58	0.358	0.87	5.98	-61
	9/2/2009	16.32	0.710	0.98	6.18	-78
	11/18/2009	12.76	0.346	0.00	7.24	-8

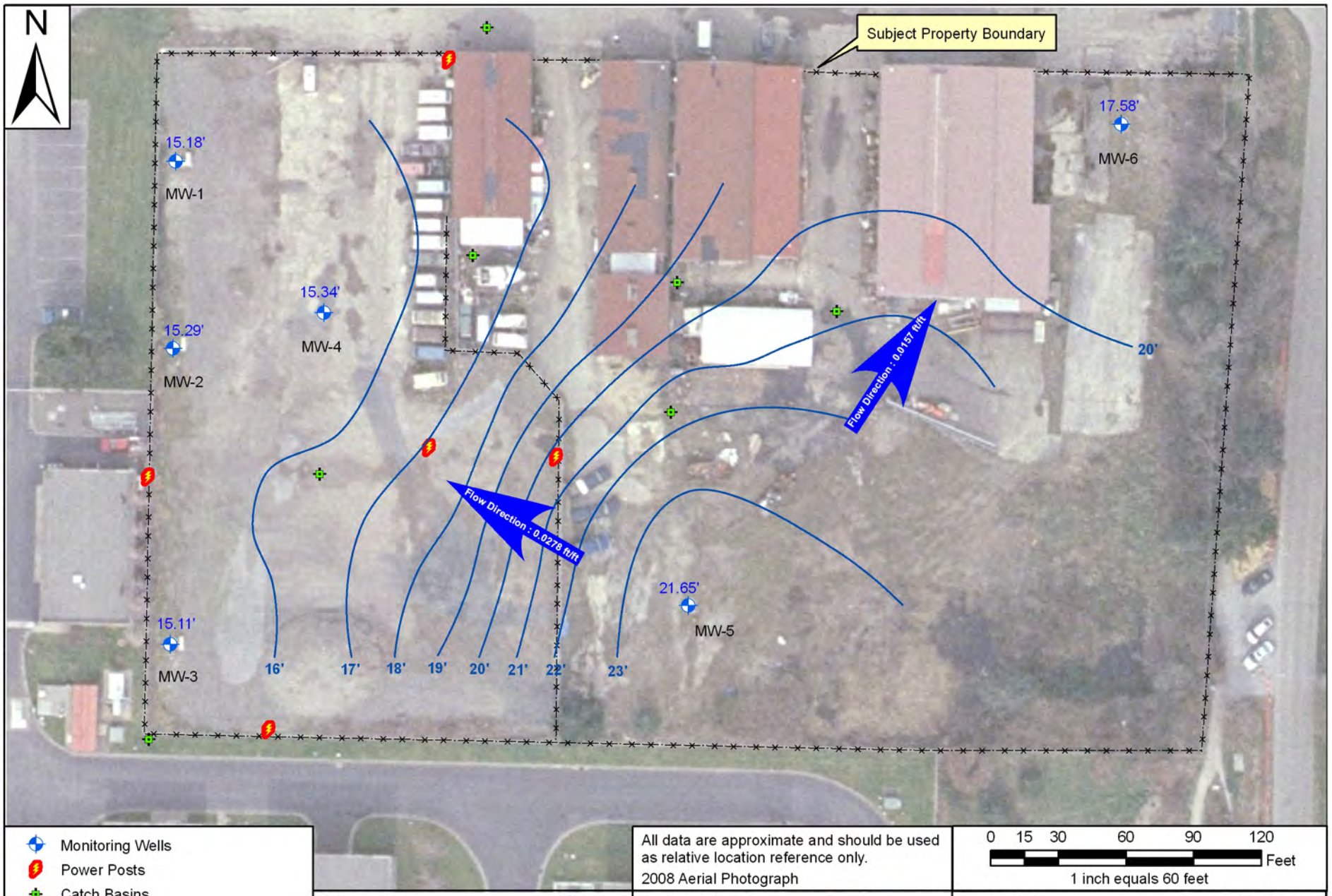
* = DO probe membrane mafunctioned during sample collection event

DO readings were verified on October 29, 2008, using a Hach HQ10 optical type DO probe.

DO readings were verified on March 4, 2009, using a Hach HQ10 optical type DO probe.

APPENDIX A

Groundwater Elevation Contour Maps



Monitoring Wells
Power Posts
Catch Basins
Fence
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

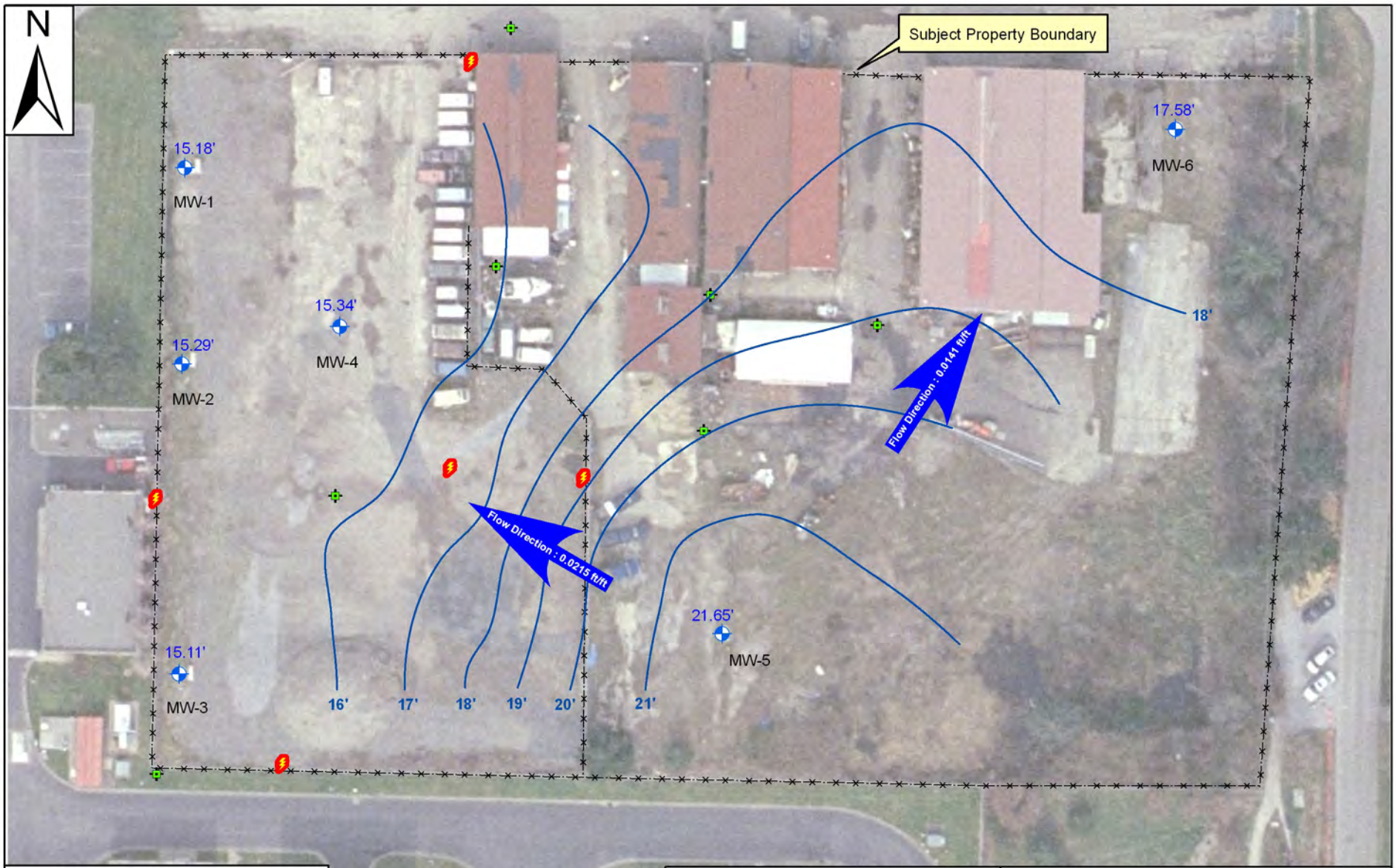
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON

Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevations 3/5/09

210 McKenzie Remediation
3/6/09

Figure A-1



Monitoring Wells
Power Posts
Catch Basins
Fence
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

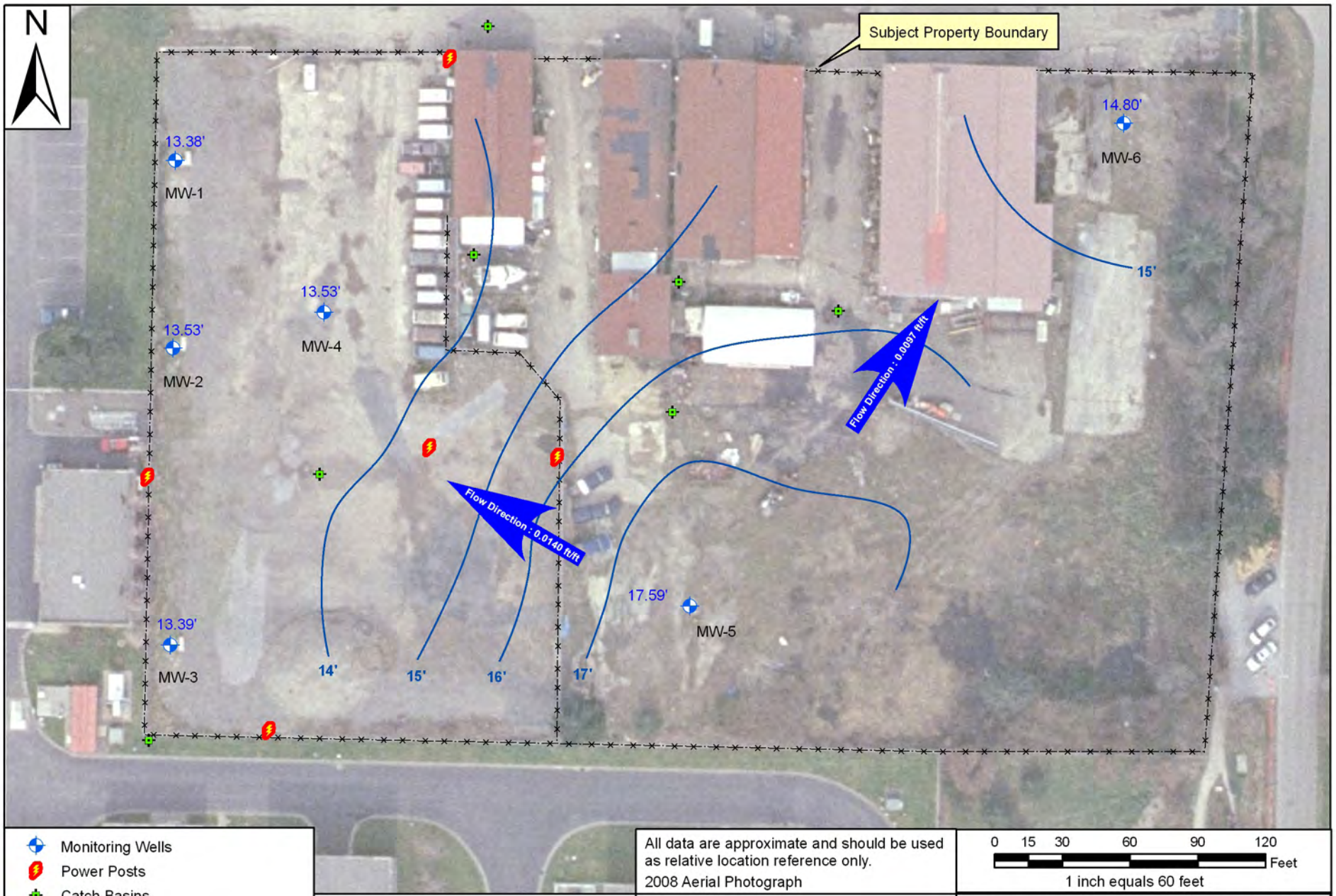
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON

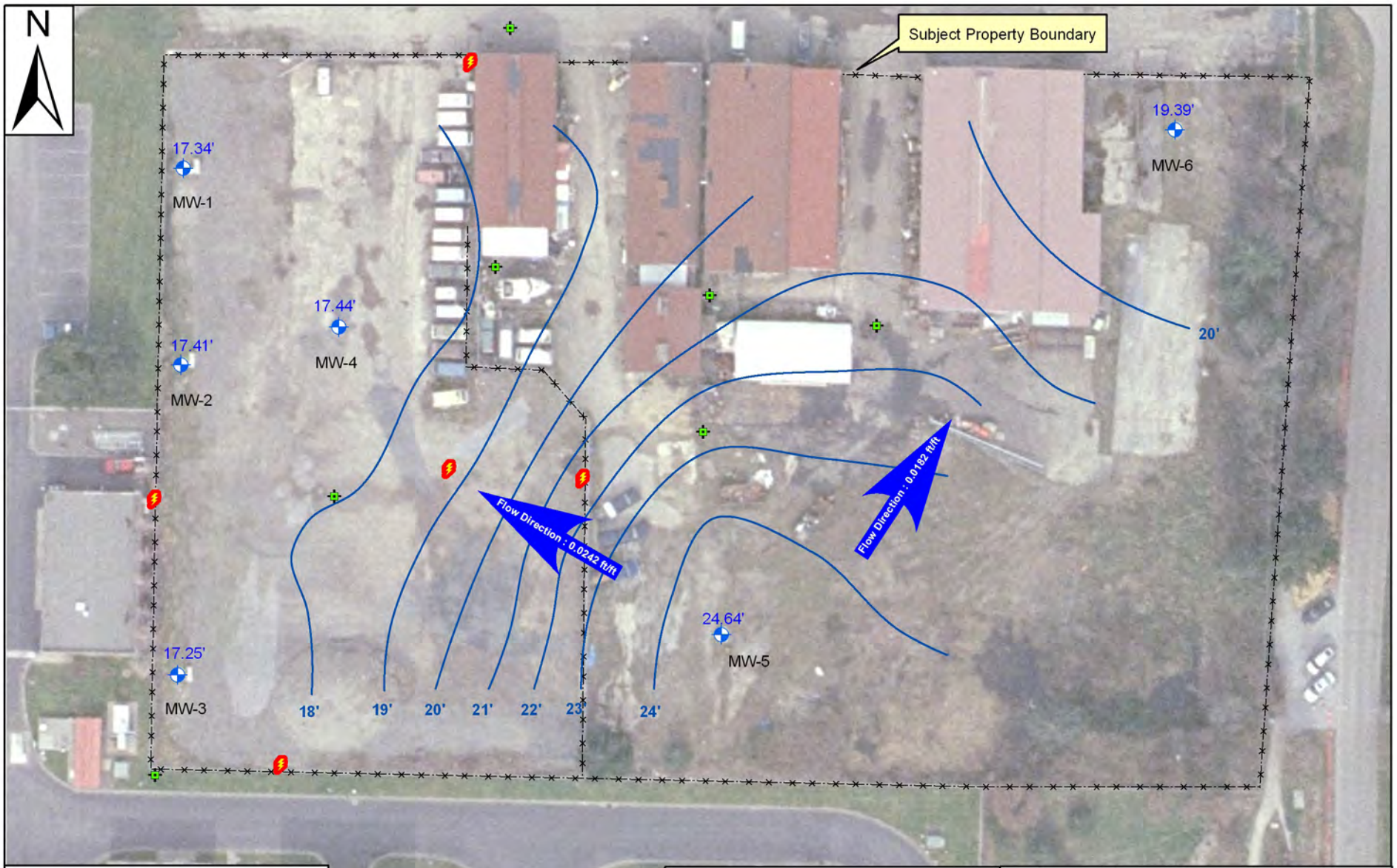
Prepared by:
whatcom ENVIRONMENTAL

Groundwater Elevations 6/4/09

210 McKenzie Remediation
6/30/09

Figure A-2


N
Subject Property Boundary
13.38'
MW-1
13.53'
MW-4
13.53'
MW-2
14.80'
MW-6
15'
Flow Direction : 0.0097 ft/ft
Flow Direction : 0.0140 ft/ft
17.59'
MW-5
13.39'
MW-3
14'
15'
16'
17'
Monitoring Wells
Power Posts
Catch Basins
Fence
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation
All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph
0 15 30 60 90 120
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Groundwater Elevations
9/2/09
210 McKenzie Remediation
11/4/09
Figure A-3



Monitoring Wells
Power Posts
Catch Basins
Fence
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph

0 15 30 60 90 120 Feet
1 inch equals 60 feet

Prepared for: City of Bellingham

Prepared by: whatcom ENVIRONMENTAL

Groundwater Elevations 11/18/09

210 McKenzie Remediation
12/2/09

Figure A-4

APPENDIX B

Original Groundwater Sample Laboratory Analytical Data

First Quarter 2009 Groundwater Data

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

ALS

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 18:15 MW-1
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	0.03	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	19	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	ND(<5)	UG/L	3/13/2009	ARI
Iron	EPA-6010	280	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	3.7	MG/L	3/9/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 16:30 MW-2
CCIL SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	0.98	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	1.4	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	8	UG/L	3/13/2009	ARI
Iron	EPA-6010	27000	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	6.2	MG/L	3/9/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 15:30 MW-3
CCIL SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	58	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	3	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	1	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	180	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	6.4	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	5.3	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	ND(<5)	UG/L	3/13/2009	ARI
Iron	EPA-6010	37000	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	13	MG/L	3/9/2009	ARI

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS AN UNIDENTIFIED DIESEL RANGE PRODUCT AND A PRODUCT WHICH IS LIKELY HIGHLY WEATHERED GASOLINE.

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** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 14:25 MW-4
CCIL SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	ND(<0.01)	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	23	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	ND(<5)	UG/L	3/13/2009	ARI
Iron	EPA-6010	ND(<100)	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	3.4	MG/L	3/9/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 11:50 MW-5
CCIL SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	ND(<0.01)	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	4.0	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	ND(<5)	UG/L	3/13/2009	ARI
Iron	EPA-6010	ND(<100)	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	2.2	MG/L	3/9/2009	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 13:05 MW-6
CCIL SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	0.76	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	6.5	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	6	UG/L	3/13/2009	ARI
Iron	EPA-6010	14000	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	10	MG/L	3/9/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 17:50 MW-7
CCIL SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	3/6/2009	EBS
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	3/6/2009	EBS
Methane	RSK-175	1.2	MG/L	3/17/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	3/6/2009	ARI
Sulfate	EPA-300.0	1.2	MG/L	3/10/2009	ARI
Arsenic	EPA-7060	8	UG/L	3/13/2009	ARI
Iron	EPA-6010	27000	UG/L	3/11/2009	BAM
Total Organic Carbon (TOC)	SM5310B	6.4	MG/L	3/9/2009	ARI

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P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 3/4/2009 19:00 MW-8
CCIL SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	3/5/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	3/5/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	3/5/2009	DLC
Arsenic	EPA-7060	ND(<5)	UG/L	3/13/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
P.O. BOX 2715
BELLINGHAM, WA 98227-2715

DATE: 3/19/2009
CCIL JOB #: 0903035
DATE RECEIVED: 3/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0903035-01	NWTPH-GX	TFT	94
0903035-01	EPA-8021	TFT	87
0903035-01	NWTPH-DX	C25	99
0903035-02	NWTPH-GX	TFT	100
0903035-02	EPA-8021	TFT	98
0903035-02	NWTPH-DX W/CLEANUP	C25	115
0903035-03	NWTPH-GX	TFT	98
0903035-03	EPA-8021	TFT	93
0903035-03	NWTPH-DX W/CLEANUP	C25	114
0903035-04	NWTPH-GX	TFT	94
0903035-04	EPA-8021	TFT	93
0903035-04	NWTPH-DX	C25	98
0903035-05	NWTPH-GX	TFT	83
0903035-05	EPA-8021	TFT	93
0903035-05	NWTPH-DX	C25	105
0903035-06	NWTPH-GX	TFT	96
0903035-06	EPA-8021	TFT	92
0903035-06	NWTPH-DX W/CLEANUP	C25	105
0903035-07	NWTPH-GX	TFT	86
0903035-07	EPA-8021	TFT	85
0903035-07	NWTPH-DX W/CLEANUP	C25	97
0903035-08	NWTPH-GX	TFT	84
0903035-08	EPA-8021	TFT	94

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 903035

Date 3/5/09 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Thom Whatcom Environmental Svcs.
PROJECT MANAGER: Thom
ADDRESS: 228 E Chapman #101
Bham, Wa 98225
PHONE: 752-9571 FAX:
P.O. NUMBER: E-MAIL: tdaum@...
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

REPORT COPY

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) As (Arsenic)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe 3+) Total	Methane	Sulfide/Sulfate	Phosphate	Total Organic Carbon			NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	3/4/09	18:15	H_2O	1		X	X	X	X									X		X	X	X	X	X			8	
2. MW-2		16:30		2		X	X	X	X									X		X	X	X	X	X			8	
3. MW-3		15:30		3		X	X	X	X									X		X	X	X	X	X			8	
4. MW-4		14:25		4		X	X	X	X									X		X	X	X	X	X			8	
5. MW-5		11:50		5		X	X	X	X									X		X	X	X	X	X			8	
6. MW-6		13:05		6		X	X	X	X									X		X	X	X	X	X			8	
7. MW-7		17:50		7		X	X	X	X									X		X	X	X	X	X			8	
8. MW-8		19:00		8			X	X	X									X									5	
9.																												
10.																												

SPECIAL INSTRUCTIONS No Sulfide container received - KB

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 3/5/09 900
Received By: Shawn Roberts ACS 3/5/09 2:15
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify: Ferrous Iron kit

* Turnaround request less than standard may incur Rush Charges

Second Quarter 2009 Groundwater Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 15:00 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	0.57	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/5/2009	BAM
Sulfate	EPA-300.0	9.3	MG/L	6/5/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	6900	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	4.9	MG/L	6/9/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 16:00 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	4.6	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	1.3	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	15	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	24000	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	6.0	MG/L	6/9/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 17:00 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	4	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	150	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	16	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	1.3	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	35000	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	0.08	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	13	MG/L	6/9/2009	ARI

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 13:00 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	ND(<0.01)	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	20	MG/L	6/12/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	ND(<100)	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	3.2	MG/L	6/9/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 12:00 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	ND(<0.01)	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	1.9	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	360	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	2.4	MG/L	6/9/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 11:00 MW-6
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	5.9	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	1.1	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	7	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	16000	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	0.14	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	12	MG/L	6/9/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 17:45 MW-7
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	3	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	160	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	15	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	0.4	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	1.5	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	35000	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	13	MG/L	6/9/2009	ARI

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL.

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY AND TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: WHATCOM ENVIRONMENTAL SERV., INC.
228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE
CLIENT SAMPLE ID: 6/4/2009 18:30 MW-8
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND(<50)	UG/L	6/8/2009	DLC
Methyl T-Butyl Ether***	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
Benzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Toluene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Ethylbenzene	EPA-8021	ND(<1)	UG/L	6/8/2009	DLC
Xylenes	EPA-8021	ND(<3)	UG/L	6/8/2009	DLC
TPH-Diesel Range	NWTPH-DX W/CLEANUP	ND(<130)	UG/L	6/8/2009	GAP
TPH-Oil Range	NWTPH-DX W/CLEANUP	ND(<250)	UG/L	6/8/2009	GAP
Methane	RSK-175	ND(<0.01)	MG/L	6/16/2009	CCN
Phosphate	EPA-300.0	ND(<0.4)	MG/L	6/8/2009	BAM
Sulfate	EPA-300.0	ND(<0.2)	MG/L	6/8/2009	BAM
Arsenic (Dissolved)	EPA-7060	ND(<5)	UG/L	6/10/2009	ARI
Iron (Dissolved)	EPA-6010	ND(<100)	UG/L	6/12/2009	BAM
Sulfide	EPA-376.1	ND(<0.05)	MG/L	6/10/2009	ARI
Total Organic Carbon (TOC)	SM5310B	ND(<0.25)	MG/L	6/9/2009	ARI

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

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228 E. CHAMPION ST SUITE 101
BELLINGHAM, WA 98225

DATE: 6/19/2009
ALS JOB #: 0906040
DATE RECEIVED: 6/5/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: HAROLD CASHMAN/THOM DAVIS
CLIENT PROJECT ID: 210 MCKENZIE

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0906040-01	NWTPH-GX	TFT	76
0906040-01	EPA-8021	TFT	94
0906040-01	NWTPH-DX W/CLEANUP	C25	88
0906040-02	NWTPH-GX	TFT	84
0906040-02	EPA-8021	TFT	101
0906040-02	NWTPH-DX W/CLEANUP	C25	88
0906040-03	NWTPH-GX	TFT	88
0906040-03	EPA-8021	TFT	99
0906040-03	NWTPH-DX W/CLEANUP	C25	84
0906040-04	NWTPH-GX	TFT	90
0906040-04	EPA-8021	TFT	99
0906040-04	NWTPH-DX W/CLEANUP	C25	93
0906040-05	NWTPH-GX	TFT	95
0906040-05	EPA-8021	TFT	98
0906040-05	NWTPH-DX W/CLEANUP	C25	84
0906040-06	NWTPH-GX	TFT	88
0906040-06	EPA-8021	TFT	94
0906040-06	NWTPH-DX W/CLEANUP	C25	91
0906040-07	NWTPH-GX	TFT	84
0906040-07	EPA-8021	TFT	96
0906040-07	NWTPH-DX W/CLEANUP	C25	88
0906040-08	NWTPH-GX	TFT	89
0906040-08	EPA-8021	TFT	98
0906040-08	NWTPH-DX W/CLEANUP	C25	91

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 906040

Date 6-5-09 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Svcs.
PROJECT MANAGER: Thom / Harold
ADDRESS: 228 E. Champion St. #101
B'ham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tlaur@whatcom...
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-1	6/4/09	1500	Water	1
2. MW-2		1600		2
3. MW-3		1700		3
4. MW-4		1300		4
5. MW-5		1200		5
6. MW-6		1100		6
7. MW-7		1745		7
8. MW-8		1830		8
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021X EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐ Dissolved	Metals Other (Specify) Lead Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	
	X	X	X	X									X	

OTHER (Specify)

Methane	Total Dissolved Iron (Fe)	Phosphate (PO_4^{3-})	Sulfate (SO_4^{2-})	Sulfide (S^{2-})	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	
X	X	X	X	X	X	12	

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 6/5/09 8:14a
Received By: Shawn Roberson ACS 6/5/09 3:50
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Third Quarter 2009 Groundwater Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	1.4	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	0.68	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	22,000	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	1.1	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	6.4	0.25	1	MG/L	9/10/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	6.1	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	0.59	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	25,000	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	18	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	6.6	0.25	1	MG/L	9/10/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	76	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	3.6	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	7.1	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	6.1	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	8.3	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	170	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	11	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	2.2	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	40,000	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	1.7	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	14	0.25	1	MG/L	9/10/2009	ARI

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline and weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	18	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	ND	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	3.3	0.25	1	MG/L	9/10/2009	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	5.5	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	1.3	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	2.4	0.25	1	MG/L	9/10/2009	ARI

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228 E. Champion St.
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Bellingham, WA 98225

DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-6
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	6.9	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	0.35	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	21,000	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	17	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	0.080	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	13	0.25	1	MG/L	9/10/2009	ARI

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DATE: 9/16/2009
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DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-7
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	4.4	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	0.61	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	21,000	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	1.7	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	6.3	0.25	1	MG/L	9/10/2009	ARI

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 9/2/2009 MW-8
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/4/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/4/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/4/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/3/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/3/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	9/15/2009	GAP
Phosphate	EPA-300.0	ND	0.40	1	MG/L	9/3/2009	BAM
Sulfate	EPA-300.0	ND	0.20	1	MG/L	9/3/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	9/14/2009	BAM
Arsenic	EPA-6020	ND	1.0	1	UG/L	9/8/2009	ARI
Sulfide	EPA-376.1	ND	0.020	1	MG/L	9/9/2009	ARI
Total Organic Carbon (TOC)	SM5310B	ND	0.25	1	MG/L	9/10/2009	ARI

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CERTIFICATE OF ANALYSIS

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DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0909013-01	NWTPH-GX	TFT	88%
0909013-01	EPA-8021	TFT	103%
0909013-01	NWTPH-DX	C25	87%
0909013-02	NWTPH-GX	TFT	82%
0909013-02	EPA-8021	TFT	94%
0909013-02	NWTPH-DX	C25	91%
0909013-03	NWTPH-GX	TFT	83%
0909013-03	EPA-8021	TFT	98%
0909013-03	NWTPH-DX	C25	91%
0909013-04	NWTPH-GX	TFT	84%
0909013-04	EPA-8021	TFT	99%
0909013-04	NWTPH-DX	C25	92%
0909013-05	NWTPH-GX	TFT	82%
0909013-05	EPA-8021	TFT	101%
0909013-05	NWTPH-DX	C25	77%
0909013-06	NWTPH-GX	TFT	84%
0909013-06	EPA-8021	TFT	97%
0909013-06	NWTPH-DX	C25	77%
0909013-07	NWTPH-GX	TFT	86%
0909013-07	EPA-8021	TFT	99%
0909013-07	NWTPH-DX	C25	94%
0909013-08	NWTPH-GX	TFT	89%
0909013-08	EPA-8021	TFT	103%
0909013-08	NWTPH-DX	C25	88%

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CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-090309W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-090309W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-090309W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-090309W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-090309W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-090309W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-082809W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-082809W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-9152009	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-932009	Water	EPA-300.0	Phosphate	ND(<0.40)	MG/L
MBLK-932009	Water	EPA-300.0	Sulfate	ND(<0.20)	MG/L
MBLK-9142009	Water	EPA-6010	Iron	ND(<100)	UG/L
MBLK-982009	Water	EPA-6020	Arsenic	ND(<1.0)	UG/L
MBLK-9102009	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

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DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
242	Water	NWTPH-GX	TPH-Volatile Range	500	80%	81%	1
242	Water	EPA-8021	Methyl T-Butyl Ether	40	108%	111%	3
242	Water	EPA-8021	Benzene	20	101%	104%	3
242	Water	EPA-8021	Toluene	20	101%	103%	3
242	Water	EPA-8021	Ethylbenzene	20	101%	103%	3
242	Water	EPA-8021	Xylenes	60	101%	105%	3
226	Water	NWTPH-DX	TPH-Diesel Range	500	71%	73%	3
R66015	Water	RSK-175	Methane	100	94%	101%	7
R65904	Water	EPA-300.0	Phosphate	100	107%	109%	2
R65904	Water	EPA-300.0	Sulfate	100	96%	96%	0
R65980	Water	EPA-6010	Iron	100	102%	103%	1
R65976	Water	EPA-6020	Arsenic	100	105%	NA	NA

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DATE: 9/16/2009
ALS JOB#: 0909013
DATE RECEIVED: 9/3/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

DUPLICATE RESULTS

PARENT ID	MATRIX	METHOD	ANALYTE	SAMPLE RESULTS	DUPLICATE RESULTS	RPD
0909013-08A	Water	SM5310B	Total Organic Carbon (TOC)	ND	ND	0

APPROVED BY:

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 909013

Date 9/2/14 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental
PROJECT MANAGER: Thom
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tdavis@whatcom....
INVOICE TO COMPANY:
ATTENTION: same
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) As (Arsenic), Fe	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Sulfate	Sulfide	Phosphate	Total Organic Carbon	Methane			NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	9/2/14	1500	Water	1		X	X	X	X									X		X	X	X	X	X			9	
2. MW-2		1400		2		X	X	X	X									X		X	X	X	X	X			9	
3. MW-3		1300		3		X	X	X	X									X		X	X	X	X	X			9	
4. MW-4		1200		4		X	X	X	X									X		X	X	X	X	X			9	
5. MW-5		1100		5		X	X	X	X									X		X	X	X	X	X			9	
6. MW-6		1000		6		X	X	X	X									X		X	X	X	X	X			9	
7. MW-7		1530		7		X	X	X	X									X		X	X	X	X	X			9	
8. MW-8		1600		8		X	X	X	X									X		X	X	X	X	X			9	
9.																												
10.																												

REPORT COPY

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: JES 9/2/14 1630
Received By:
2. Relinquished By:
Received By: Shawn Patterson ALS 9/3/14 8:50

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Fourth Quarter 2009 Groundwater Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	24	1.5	5	MG/L	11/23/2009	BAM
Iron	EPA-6010	930	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	ND	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	3.0	0.25	1	MG/L	11/25/2009	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	4.4	0.050	5	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	2.9	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	24,000	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	17	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	7.1	0.25	1	MG/L	11/25/2009	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
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DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	2.7	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	250	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	7.0	0.050	5	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	3.8	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	35,000	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	2.3	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	15	0.25	1	MG/L	11/25/2009	ARI

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	20	1.5	5	MG/L	11/23/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	ND	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	4.5	0.25	1	MG/L	11/25/2009	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
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Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	2.9	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	1.5	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	4.1	0.25	1	MG/L	11/25/2009	ARI

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DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-6
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	3.7	0.050	5	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	6.3	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	7,500	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	8.8	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	11	0.25	1	MG/L	11/25/2009	ARI

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CERTIFICATE OF ANALYSIS

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228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-7
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	3.8	0.050	5	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	6.2	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	7,400	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	8.8	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	11	0.25	1	MG/L	11/25/2009	ARI

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DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 11/18/2009 MW-8
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	11/20/2009	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	11/20/2009	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	11/20/2009	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	11/20/2009	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	11/20/2009	EBS
Methane	RSK-175	ND	0.010	1	MG/L	11/30/2009	CCN
Phosphate	EPA-300.0	ND	0.40	1	MG/L	11/20/2009	BAM
Sulfate	EPA-300.0	ND	0.30	1	MG/L	11/20/2009	BAM
Iron	EPA-6010	ND	100	1	UG/L	11/24/2009	BAM
Arsenic (Dissolved)	EPA-6020	ND	1.0	1	UG/L	11/25/2009	ARI
Sulfide	EPA-376.1	ND	0.050	1	MG/L	11/23/2009	ARI
Total Organic Carbon (TOC)	SM5310B	ND	0.25	1	MG/L	11/25/2009	ARI

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0911102-01	NWTPH-GX	TFT	97%
0911102-01	EPA-8021	TFT	94%
0911102-01	NWTPH-DX	C25	82%
0911102-02	NWTPH-GX	TFT	102%
0911102-02	EPA-8021	TFT	96%
0911102-02	NWTPH-DX	C25	80%
0911102-03	NWTPH-GX	TFT	102%
0911102-03	EPA-8021	TFT	98%
0911102-03	NWTPH-DX	C25	87%
0911102-04	NWTPH-GX	TFT	102%
0911102-04	EPA-8021	TFT	101%
0911102-04	NWTPH-DX	C25	80%
0911102-05	NWTPH-GX	TFT	98%
0911102-05	EPA-8021	TFT	97%
0911102-05	NWTPH-DX	C25	73%
0911102-06	NWTPH-GX	TFT	106%
0911102-06	EPA-8021	TFT	98%
0911102-06	NWTPH-DX	C25	84%
0911102-07	NWTPH-GX	TFT	97%
0911102-07	EPA-8021	TFT	90%
0911102-07	NWTPH-DX	C25	87%
0911102-08	NWTPH-GX	TFT	97%
0911102-08	EPA-8021	TFT	93%
0911102-08	NWTPH-DX	C25	87%

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DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-112009W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-112009W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-112009W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-112009W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-112009W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-112009W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-112009W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-112009W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-11302009	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-11202009	Water	EPA-300.0	Phosphate	ND(<0.40)	MG/L
MBLK-11202009	Water	EPA-300.0	Sulfate	ND(<0.30)	MG/L
MBLK-11232009	Water	EPA-300.0	Sulfate	ND(<0.30)	MG/L
MBLK-11242009	Water	EPA-6010	Iron	ND(<100)	UG/L
MBLK-11252009	Water	EPA-6020	Arsenic (Dissolved)	ND(<1.0)	UG/L
MB-R66966	Water	EPA-376.1	Sulfide	ND(<0.050)	MG/L
MBLK-11252009	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

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Bellingham, WA 98225

DATE: 11/30/2009
ALS JOB#: 0911102
DATE RECEIVED: 11/20/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
397	Water	NWTPH-GX	TPH-Volatile Range	500	72%	68%	5
397	Water	EPA-8021	Methyl T-Butyl Ether	40	114%	108%	6
397	Water	EPA-8021	Benzene	20	114%	109%	4
397	Water	EPA-8021	Toluene	20	112%	107%	5
397	Water	EPA-8021	Ethylbenzene	20	111%	106%	5
397	Water	EPA-8021	Xylenes	60	112%	107%	5
402	Water	NWTPH-DX	TPH-Diesel Range	500	83%	89%	7
R66968	Water	RSK-175	Methane	100	95%	97%	2
R66951	Water	EPA-300.0	Phosphate	100	103%	104%	1
R66951	Water	EPA-300.0	Sulfate	100	102%	99%	3
R66952	Water	EPA-300.0	Sulfate	100	102%	100%	2
R66950	Water	EPA-6010	Iron	1000	103%	103%	0
R66965	Water	EPA-6020	Arsenic (Dissolved)	100	97%	NA	NA
R66967	Water	SM5310B	Total Organic Carbon (TOC)	100	104%	NA	NA

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 911102

Date 11/19/09 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Env.
PROJECT MANAGER: Thom - Harold
ADDRESS: 278 E. Champion #181
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tdavis@whe---
INVOICE TO COMPANY: Same.
ATTENTION:
ADDRESS:

REPORT COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) As (Arsenic)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe++) Total	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	11/18/09	1055	water	1		X	X	X	X									X		X	X	X	X	X	X	9	
2. MW-2		945		2																						9	
3. MW-3		1300		3																						9	
4. MW-4		1200		4																						9	
5. MW-5		1400		5																						9	
6. MW-6		1500		6																						9	
7. MW-7		1530		7																						9	
8. MW-8		1600		8		X	X	X	X									X		X	X	X	X	X	X	9	
9.																											
10.																											

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 11/19/09 1430
Received By: [signature] ALS 11/20/09 10:15
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

2010 ADDITIONAL SITE INVESTIGATION AND GROUNDWATER MONITORING REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FACILITY SITE ID #151016)

prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

March 18, 2011

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2010 ADDITIONAL SITE INVESTIGATION AND GROUNDWATER MONITORING REPORT 210 MCKENZIE AVENUE BELLINGHAM, WASHINGTON (FACILITY SITE ID #151016)

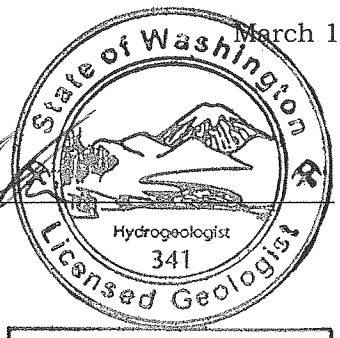
Prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

Prepared by:

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, Washington 98225

March 18, 2011



Harold Cashman
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EXECUTIVE SUMMARY

This report documents additional subsurface investigation work performed during 2010 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by The City of Bellingham and is located adjacent to the Post Point Wastewater Treatment Plant. The site has been assigned a Facility Site ID Number of 151016 by the Washington Department of Ecology. The site was entered into the Voluntary Cleanup Program (VCP) in 2009 and assigned VCP Number NW2179.

Six wells at the 210 McKenzie Ave. property have been monitored since 2007 to assess the groundwater quality on this site. Three additional soil borings were drilled in 2010 in an effort to delineate the extent of the release site. Three new groundwater monitoring wells were installed in the borings. The groundwater monitoring system at the site now consists of nine groundwater monitoring wells. Quarterly groundwater monitoring was conducted in 2010.

Laboratory analytical data indicates that groundwater in the vicinity of the nine monitoring wells (MW) has not been adversely impacted by petroleum compounds. Dissolved arsenic was detected in 2010 in groundwater in the vicinity of wells MW-1, MW-2, MW-3, MW-6, and MW-7 at concentrations which exceed the Model Toxics Control Act (MTCA) Method A target cleanup level for arsenic.

The arsenic detections could be the result of past uses of the property or they could be the result of natural causes. Groundwater from each of the impacted wells has low oxidation-reduction potential, indicating reducing conditions. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic mobilization in groundwater (Welch et. al, 2000).

1.0 INTRODUCTION

This report summarizes the additional subsurface investigation work, remediation efforts, and quarterly groundwater monitoring conducted during 2010 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by The City of Bellingham and is located adjacent to the Post Point Wastewater Treatment Plant. The location of the subject property and adjacent properties are shown on Figure 1. The regulatory driver for the remedial investigation of the property is the MTCA Cleanup Regulation Chapter 173-340 (Ecology, 2007). The site is being investigated and remediated under the Voluntary Cleanup Program (VCP).

The scope of the investigation consists of quarterly collection and analyses of groundwater samples from nine groundwater monitoring wells installed at the site. The current monitoring well system consists of wells MW-1 through MW-6 which were installed in 2007 and wells MW-7, MW-8, and MW-9 installed in 2010. The well locations are shown on Figure 2. The wells are screened from approximately 5 to 15 feet below grade. Groundwater samples were collected in 2010 in March, June, September, and December 2010 using a low-flow sample collection method (USEPA, 1998).

Dissolved arsenic has been detected above the MTCA Method A target cleanup level in five of the nine monitoring wells installed in a zone of perched groundwater at the site. Based on the results of an arsenic speciation study conducted in 2010 and historical data collected since 2009, the source of the arsenic detected in wells at the site is presumed to be mineral oxides in the aquifer matrix. The reducing conditions documented in the perched groundwater result in the desorption of arsenic from iron oxides.

The additional site investigation work and groundwater monitoring was conducted by Whatcom Environmental Services on behalf of the City of Bellingham. This report includes a description of additional subsurface investigation work and groundwater monitoring completed at the site in 2010 and supplements data presented in reports previously submitted to Ecology, including: *Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated February 11, 2009; and *2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated March 15, 2010.

2.0 ADDITIONAL REMEDIAL INVESTIGATION

Three additional groundwater monitoring wells were installed in 2010 in an effort to delineate the extent of release site. The new wells were installed near the east side of the Post Point Wastewater Treatment Plant parking lot, west of wells MW-1 and MW-2. The three new wells were installed by Environmental Drilling Inc. using a hollow-stem auger drill rig on May 13, 2010. The new monitoring wells were identified as MW-7 through MW-9. Monitoring well locations are shown on Figure 2.

2.1 Soil Borings and Soil Sample Analytical Results

Subsurface utilities were located prior to drilling, and the three boring locations were pre-excavated to approximately 5 feet below ground surface (bgs) using a vacuum truck. The drill rig equipment was decontaminated prior to drilling each soil boring. The borings were continuously cored to a depth of 15-19 feet below grade. Soil cores were logged in the field and soil descriptions generally followed ASTM D 2487 'Unified Soil Classification System' procedures for description and identification of soils. The soil borings were identified as B-7 through B-9. Soil boring logs are included in Appendix A.

The soil cores were evaluated for organic vapors using a photoionization detector (PID) and for petroleum products using sheen tests. Immediately after the soil cores were described a portion of the sample was sheen tested and the remainder of the sample was placed in labeled re-sealable bags. Sheen test results were recorded as NS – no sheen, VSS – very slight sheen, SS – slight sheen, MS – moderate sheen, and HS – heavy sheen. The PID was inserted into the re-sealable bag in order to evaluate the presence of organic vapors, and a headspace reading was measured and organic vapor detections in parts per million (ppm) were recorded on the borelogs.

Soil samples were collected from each boring location. Soil samples were collected via EPA Method 5035A. The samples were identified by both the boring number from which they originated and the depth from which they were collected. Soil samples were collected in sample bottles provided by the lab and stored on ice in a cooler immediately following collection. All sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler's name, and the analysis requested. Standard industry

protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

Soil samples collected from the monitoring well borings were analyzed for gasoline range total petroleum hydrocarbons (TPH) using Method NWTPH-Gx; diesel and oil range TPH using Method NWTPH-Dx; benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8021; arsenic, cadmium, chromium and lead using EPA Method 6020; and mercury using Method EPA 7471. The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology.

The soil screening levels for the site were established for unrestricted land use in accordance with the Model Toxics Control Act (MTCA) WAC 173-340. MTCA Method A target cleanup levels for soil are provided in WAC 173-340, Table 740-1.

2.1.1 Boring B-7

Soil boring B-7 was drilled in the grass area near the entrance to the Post Point Wastewater Treatment Plant parking lot. Soils encountered at the boring location consisted of sandy silt and clayey silt. No petroleum sheens or organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-7 from a depth of 8-8.5 feet bgs. The sample did not contain detectable concentrations of gasoline or diesel range TPH, BTEX constituents, or cadmium. Arsenic, chromium, lead, and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.1.2 Boring B-8

Soil boring B-8 was drilled in the grass area east of the Post Point Wastewater Treatment Plant parking lot, west of well MW-1. Soils encountered at the boring location consisted of sand and sandy gravel. Woody debris was encountered at 12.5-14 feet bgs. Very slight to slight petroleum sheens and low concentrations of organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-8 from a depth of 12.5 feet bgs. The sample did not contain detectable concentrations of gasoline range TPH, BTEX constituents, or cadmium. Diesel and oil range TPH were detected at concentrations of 2,500 and 3,100 mg/kg respectively, which exceeded the MTCA Method A target cleanup level of 2,000 mg/kg. Arsenic was detected at a concentration of 49 mg/kg, which exceeded the MTCA Method A target cleanup level of 20 mg/kg. Lead was detected at a concentration of 1,000 mg/kg, which exceeded the MTCA Method A target cleanup level of 250 mg/kg. Chromium and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.1.3 Boring B-9

Soil boring B-9 was drilled in the grass area east of the Post Point Wastewater Treatment Plant parking lot, northwest of MW-2. Soils encountered at the boring location consisted of sand and gravel. Pieces of brick and metal debris were encountered to a depth of 9 feet bgs. Gravelly sand with oil globules was encountered at 12.5-14 feet bgs. Slight to heavy petroleum sheens and low concentrations of organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-9 from a depth of 12.5 feet below ground surface (bgs). The sample did not contain detectable concentrations of gasoline range TPH, BTEX constituents, or cadmium. Diesel and oil range TPH were detected at concentrations of 26,000 and 40,000 mg/kg respectively, which exceeded the MTCA Method A target cleanup level of 2,000 mg/kg. Arsenic was detected at a concentration of 51 mg/kg, which exceeded the MTCA Method A target cleanup level of 20 mg/kg. Chromium, lead, and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.2 Groundwater Monitoring Well Installation

Groundwater monitoring wells were installed in each of the soil borings and were identified as MW-7 through MW-9. The monitoring wells were installed at a depth of 15 to 19 feet below ground surface and were constructed with 2-inch diameter, machine slotted PVC

pipe. The well screen lengths are 10 feet and the top of the PVC well casings are protected with flush mounted well monuments. Monitoring well design specifications are included in Appendix A.

The new monitoring wells were developed on June 14, 2010 using disposable bailers to purge each well. All wells were bailed dry during the purging process. The wells yielded approximately 20-50 gallons of turbid water before going dry.

The new groundwater monitoring wells were surveyed by the City of Bellingham. The black mark on the top of the PVC casing (measurement point) and the center of the well monument (surface elevation) were surveyed for location (X, Y) and elevation (Z) at each monitoring well.

2.3 Sand Blast Grit Removal

IOTA Metalworking Service was previously a tenant at 210 McKenzie Avenue. IOTA vacated the premises in 2010. IOTA removed several 55 gallon drums of sand blast grit, that had been stored uncovered on the site, upon their departure. Furthermore the City of Bellingham requested that this tenant remove the sand blast grit on the ground surface. This grit was also removed in 2010.

3.0 GROUNDWATER MONITORING

Quarterly groundwater monitoring continued at 210 McKenzie Avenue during 2010. Groundwater samples were collected from the groundwater monitoring well network in order to evaluate groundwater quality.

An arsenic speciation study was also conducted on groundwater samples collected from monitoring wells, MW-2, MW-5, and MW-6. MW-2 and MW-6 were selected as they had experienced periodic low-level arsenic detections, and MW-5 was selected as a reference as it represented the cleanest groundwater of the six routine sites.

Several analytical parameters were added to the groundwater sample analyte list in 2009. Total dissolved iron, ferrous iron (Fe^{2+}), methane, phosphate, sulfate, sulfide, and total organic carbon (TOC) were added to the groundwater analyte list to evaluate the mobilization of arsenic from either natural or anthropogenic sources.

3.1 ARSENIC SPECIATION STUDY

An arsenic speciation study was conducted in January 2010. Groundwater samples were collected using clean sampling techniques (EPA Method 1669) from monitoring wells MW-2, MW-5, and MW-6. The samples were analyzed for inorganic arsenic ($AS^{(III)}$ and $AS^{(V)}$), organic arsenic, manganese, sulfide, and iron in order to evaluate the redox conditions of the groundwater at those well locations. The samples were analyzed by Columbia Analytical Services Trace Metals Research Group in Kelso, Washington.

The laboratory data report for the arsenic speciation study is included in Appendix C. The data support the hypothesis that the elevated arsenic values are the result of reducing conditions in the perched groundwater. The low oxidation/reduction potential of the groundwater causes ferric iron $Fe^{(III)}$ to be reduced to ferrous iron $Fe^{(II)}$ which allows the adsorbed arsenic to go into solution.

Dr. Nicolas Bloom, Senior Research Scientist at Columbiua Analytical, analyzed the data from the three wells and concluded: “Overall, the data appear to be geochemically appropriate--that is, the elevated arsenic values are explained most likely by virtue of the water

being more reducing (lower ORP) where the As, Mn, and Fe are higher--at reduced ORP, oxides of Fe(lll) and Mn(IV) are reduced to soluble Fe(ll) and Mn(ll), which then allows the adsorbed As to go into solution. I can't be sure why the ground water is reducing in these areas (most likely sulfate reducing bacteria), but it seems most likely that the elevated As in the water is explained by this natural phenomenon, rather than by anthropogenic contamination. However--although we don't have any evidence for it, you could always be suffering from both factors: that is--if there were As contamination in these waters, it would remain solubilized for the same reason as the natural As becoming solubilized (reducing conditions)."

Based on the arsenic speciation findings, it appears that the elevated arsenic detected in the perched groundwater is explained by the reducing conditions observed at the site.

3.2 QUARTERLY GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected for laboratory analysis in March, June, September, and December 2010. A low-flow sampling technique, recommended and approved by the U.S. Environmental Protection Agency (USEPA, 1998), was used to sample each monitoring well. The low-flow sampling technique minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. A Horiba Model U22-XD multi-parameter water meter was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected when the water chemistry parameters stabilized.

Groundwater samples were collected in sample bottles provided by the analytical laboratory and stored on ice in a cooler immediately after collection. The sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler's name, and the analysis requested. Groundwater samples were identified by the monitoring well identification number. One duplicate sample and one equipment blank sample were also collected during each sampling event. Common industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

3.3 GROUNDWATER FLOW DIRECTION

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor. Depth to water in each well was measured from a marked location on the top of the PVC well casing with an electronic well probe and recorded in the field notebook. Depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the site.

The data indicate that the groundwater flows in a northwesterly direction on the western portion of the property and in a northeasterly direction on the eastern portion of the property. The groundwater surface contours for each quarterly sampling event are included in Appendix D.

3.4 GROUNDWATER SAMPLE RESULTS

Groundwater samples were analyzed for gasoline, diesel, and lube-oil range total petroleum hydrocarbons (TPH) using Methods NWTPH-Gx and NWTPH-Dx, respectively; benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using EPA Method 8021; and dissolved arsenic using EPA Method 7060. Samples were also analyzed for total dissolved iron (EPA 6010), methane (RSK-175), phosphate (EPA 300.0), sulfate (EPA 300.0), sulfide (EPA 376.1), and total organic carbon (TOC) (SM 5310B) in order to explore the relationship between those parameters and arsenic mobilization in the perched groundwater. The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology. All samples were analyzed within the prescribed holding times, and the equipment blank and duplicate sample results were within acceptable limits.

Groundwater analytical data for each monitoring well sample, duplicate samples, and equipment blank samples are summarized in Tables 2, 3, and 4. The original laboratory analytical data reports are provided in Appendix E.

3.4.1 Total Petroleum Hydrocarbons

No gasoline or diesel range TPH, BTEX constituents, or MTBE were detected in groundwater samples collected from wells MW-4, MW-6, or MW-7 in 2010. Low concentrations of diesel range TPH were detected at concentrations which did not exceed the MTCA Method A

cleanup level sporadically throughout the year in wells MW-1, MW-2, MW-3, MW-5, MW-8, and MW-9. BTEX concentrations detected in well MW-3 did not exceed the MTCA Method A target cleanup levels. TPH and BTEX analytical results are summarized in Table 2.

3.4.2 Arsenic

Total dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in wells MW-1, MW-2, MW-3, MW-6, and MW-7 during 2010. Low levels of arsenic were detected in wells MW-1, MW-3, MW-5, MW-7, MW-8, and MW-9 at concentrations below the MTCA Method A target cleanup level. Arsenic was not detected in well MW-4. Arsenic analytical results are summarized in Table 3.

Arsenic has been detected at an average study concentration of 12.34 ug/L in monitoring well MW-2 and 7.5 ug/L in MW-6 since groundwater monitoring began in 2007. Arsenic has been detected at an average study concentration of 6.1 ug/L in monitoring well MW-7 in 2010.

3.4.3 Iron

Total dissolved iron samples were field filtered into preserved bottles and analyzed at the lab. Ferrous iron $Fe^{(II)}$ was measured in the field from filtered samples using a Hach ferrous iron (Fe^{II}) test kit. Ferric iron $Fe^{(III)}$ concentrations were estimated by subtracting ferrous iron concentrations measured in the field from the total dissolved iron results determined at the lab. Ferric and ferrous iron (iron oxides) concentrations were evaluated because iron is the most common arsenic bearing mineral (Welch, et al, 2000) and adsorbed arsenic may be released by the reduction of ferric iron (Fe^{III}) to ferrous iron (Fe^{II}) (Kirk, et al, 2004). Ferric and ferrous iron analytical results are summarized in Table 3.

Total dissolved iron was detected at elevated concentrations ranging from 12,000 to 40,000 ug/L in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, and MW-9 during each quarter of 2010 (Table 3). Dissolved ferrous iron (Fe^{II}) was detected at concentrations ranging from 3,000 to 10,000 ug/L. No dissolved iron or iron oxides were detected in wells MW-4 or MW-5 during 2010. The detection of dissolved ferrous iron (Fe^{II}) in the wells containing high concentrations of total dissolved iron indicates that reduction of ferric iron (Fe^{III}) to ferrous iron (Fe^{II}) is occurring, potentially resulting in the dissolution of arsenic from the aquifer matrix.

3.4.4 Methane

Methane concentrations were measured because methane has been shown to be produced when arsenic levels are elevated (Kirk, et al, 2004). Methane was detected in wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, and MW-9 during each quarter of 2010 (Table 3). No methane was detected in well MW-5 during 2010. The highest concentrations were detected in wells MW-2, MW-3, MW-8, and MW-9, wells not showing elevated arsenic. Those wells contained concentrations of diesel range TPH and the high concentrations of methane are most likely related to the anaerobic bio-degradation of hydrocarbons.

3.4.5 Phosphate

Phosphate concentrations were measured because phosphate has a similar geochemical behavior to arsenate (As(V)) and may de-sorb arsenic from iron oxide surfaces (USGS, 1999). Phosphate was only detected in wells MW-3 and MW-4 during 2010 during the September sampling event at a concentration of 8 mg/L (Table 3).

3.4.6 Sulfate/Sulfide

Sulfate and sulfide concentrations were measured because it has been shown that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004). Sulfate was detected in each monitoring well during 2010 (Table 3). The highest concentration of sulfate was found in well MW-4 (clean well) and the lowest concentrations were detected in wells MW-2, MW-6, and MW-7, the wells showing elevated concentrations of arsenic. This evidence appears to confirm the finding that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004). Sulfide was not detected in any well in 2010.

3.4.7 Total Organic Carbon

Total organic carbon was detected in every monitoring well during 2010 (Table 3). The highest concentrations were detected in well MW-3, MW-6, and MW-7, the wells showing elevated concentrations of arsenic. Iron can release arsenic to groundwater through iron-reduction involving either naturally occurring or anthropogenic organic carbon (Welch et al., 2000). MW-4 (clean well) and MW-5, the site background well, had the lowest concentrations of TOC throughout the year.

3.4.8 Dissolved Metals

Groundwater samples were collected and analyzed for dissolved metals including mercury, cadmium, chromium, and lead. Monitoring wells MW-1 through MW-6 were samples for those dissolved metals in 2007 and 2008. None of the metals were detected in those wells at concentrations exceeding the MTCA Method A target cleanup levels, therefore sampling for those metals in wells MW-1 through MW-6 stopped in 2009 (Table 4).

Groundwater samples were collected from monitoring wells MW-7, MW-8, and MW-9 and analyzed for dissolved mercury, cadmium, chromium, and lead in June, September, and December 2010. None of the metals were detected in those wells at concentrations exceeding the MTCA Method A target cleanup levels. Low concentrations of cadmium, chromium, and lead were detected in samples collected from well MW-7. Low concentrations of lead were also detected in wells MW-8 and MW-9 (Table 4).

3.4.9 Water Quality Indicator Parameters

The final water quality indicator parameter measurements for each well collected prior to sample collection are shown on Table 5. Review of the groundwater quality indicator parameters revealed the following observations:

- The data revealed that groundwater beneath the site is generally low in oxygen, indicating anaerobic conditions. Oxygen concentrations in the wells were generally less than 1 mg/L, with the exception of well MW-5.
- The data indicate that groundwater beneath the site has a relatively neutral pH.
- The oxidation-reduction potential in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, and MW-9 was low, indicating reducing conditions exist in the groundwater at those locations. In general, there appears to be an inverse relationship between ORP values and arsenic concentrations. When ORP values are low, arsenic concentrations increase.
- Arsenic concentrations appear to be correlated with groundwater temperature and groundwater elevation. In general, when the groundwater elevations are low (September) the groundwater temperatures reach their annual maximum and arsenic concentrations peak.

4.0 DISCUSSION

Four years of groundwater monitoring have revealed that arsenic is the main constituent of concern in groundwater at the 210 McKenzie site. The MTCA Method A target cleanup level of 5 ug/L is based on Washington State background concentrations. Groundwater in the vicinity of wells MW-2, MW-6, and MW-7 contains total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. However, the Maximum Contaminant Level (MCL) for drinking water established by the U.S. Environmental Protection Agency (EPA) is 10 ug/L. Washington State has adopted the Federal MCL for arsenic. Arsenic has been detected at an average study concentration of 12.34 ug/L in monitoring well MW-2. Monitoring well MW-2 is the only well at the site that yields an average arsenic concentration above the MCL.

The highest arsenic concentrations appear to be generally correlated with the lowest groundwater surface elevations and the highest groundwater temperatures. Those conditions tend to occur in the late fall which is corroborated in the limited data set generated to date. Samples collected in September generally have an increased concentration of arsenic compared to those collected in March. This direct proportionality to temperature agrees with experiments conducted to assess the adsorption and desorption of arsenic from soil particles (Tyrovola and Nikolaidis, 2009).

The wells in which high concentrations of arsenic have been detected tend to have greater negative oxidation/reduction potential (ORP) values. The data generally shows that when the ORP values are increasing (becoming more positive), arsenic values decrease and when ORP values are decreasing (becoming more negative), arsenic concentrations increase. Negative ORP indicates a reducing environment. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release (Welch et. al, 2000).

The highest concentrations of iron are found in the wells located on the western side of the property where the subsurface investigation showed excessive buried waste debris (WES, 2007b). The detection of dissolved ferrous iron (Fe^{II}) in the wells containing high concentrations of total dissolved iron indicates that reduction of ferric iron (Fe^{III}) to ferrous iron (Fe^{II}) is occurring, potentially resulting in the dissolution of arsenic from the aquifer matrix.

Aspect Consulting of Seattle, Washington conducted an intensive groundwater investigation of the Lummi Island aquifer and concluded that wells with arsenic concentrations that exceed the EPA groundwater quality standard of 10 μg/L were associated with the Padden Member of the Chuckanut Formation (Aspect, 2006). The study found that wells drilled into unconsolidated materials which were located in close proximity to contacts with the Chuckanut Formation were found to have elevated concentrations of arsenic. The Padden Member of the Chuckanut Formation is the geologic unit located adjacent to (uphill) and reportedly beneath the subject property (Lapen, 2000).

5.0 CONCLUSIONS

The groundwater monitoring well network at 210 McKenzie Avenue in Bellingham, Washington was expanded by the addition of three groundwater monitoring wells in 2010. Quarterly groundwater monitoring was in March, June, September, and December using a low-flow sample collection method (USEPA, 1998).

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds or BTEX constituents. Groundwater in the vicinity of wells MW-2, MW-6, and MW-7 contains total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. Those wells yielded relatively consistent arsenic detections over the monitoring period. Arsenic has been detected at an average study concentration of 12.34 ug/L in monitoring well MW-2 and 7.5 ug/L in MW-6 since groundwater monitoring began in 2007. Arsenic has been detected at an average study concentration of 6.1 ug/L in monitoring well MW-7 in 2010. Arsenic was also detected in wells MW-1, MW-3, MW-5, MW-8, and MW-9.

Based on the results of the arsenic speciation study conducted in 2010 and historical data collected since 2009, the source of the arsenic detected in wells at the site is presumed to be mineral oxides in the aquifer matrix. The reducing conditions documented in the perched groundwater result in the desorption of arsenic from iron oxides.

The groundwater monitoring well system will continue to be monitored on a quarterly schedule in 2011.

6.0 LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by Whatcom Environmental Services is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. Whatcom Environmental Services prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

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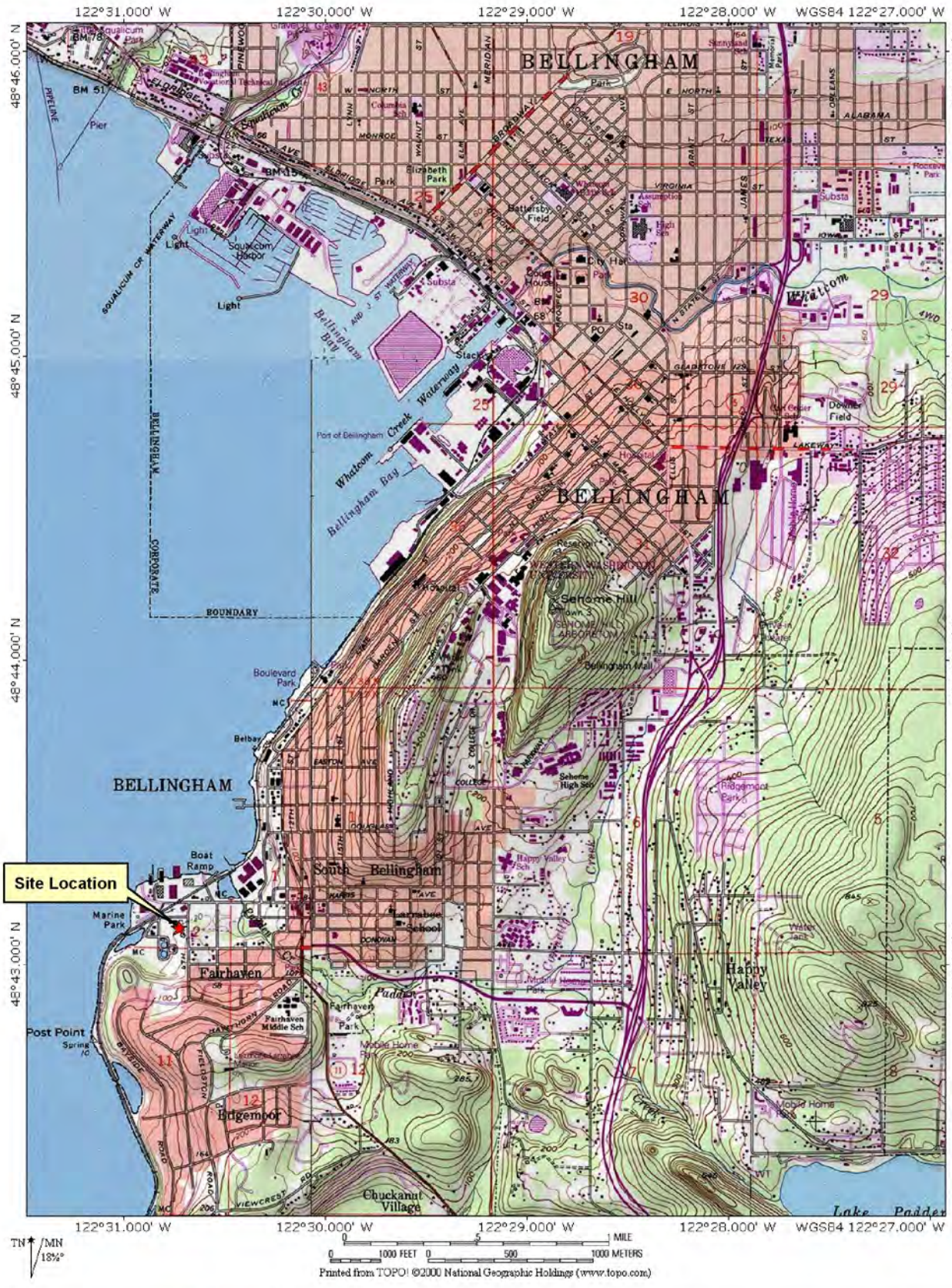

Prepared for:

City of Bellingham

Prepared by:

whatcom ENVIRONMENTAL

Site Location Map

210 McKenzie

9/25/08

Figure 1

All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 17.5 35 70 105 140 Feet

1 inch equals 70 feet

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Site Map

210 McKenzie Remediation

2/9/11

Figure 2

Table 1. Soil Sample Analytical Data - Soil Borings B-7, B-8, and B-9

Sample ID	B-7 (8-8.5') (MW-7)	B-8 (12.5') (MW-8)	B-9 (12.5') (MW-9)	MTCA Method A Cleanup Level
Date	5/13/10	5/13/10	5/13/10	
NW-TPH Methods (mg/kg)				
Gasoline Range (NWTPH-Gx)	ND(<3.0)	ND(<3.0)	ND(<3.9)	100/30*
Diesel Range (NWTPH-Dx)	ND(<25)	**2,500**	**26,000**	2,000
Oil Range (NWTPH-Dx)	ND(<50)	**3,100**	**40,000**	2,000
EPA 8021 Method (mg/kg)				
Benzene	ND(<0.03)	ND(<0.03)	ND(<0.046)	0.03
Toluene	ND(<0.05)	ND(<0.05)	ND(<0.077)	7
Ethylbenzene	ND(<0.05)	ND(<0.05)	ND(<0.077)	6
Xylenes	ND(<0.20)	ND(<0.20)	ND(<0.31)	9
Metals - EPA 6020 (mg/kg)				
Arsenic	2.6	**49**	**51**	20
Cadmium	ND(<0.20)	ND(<0.20)	ND(<3.1)	2
Chromium	43	270	170	2,000
Lead	4.3	**1,000**	220	250
Metals - EPA 7471 (mg/kg)				
Mercury	0.038	0.055	0.042	2

ND - indicates TPH was not detected at level above reporting limit (shown in parentheses)

BOLD indicates the sample exceeded MTCA Method A cleanup level

NA - indicates sample not analyzed for the specified analyte

* - Cleanup level dependent on benzene concentration

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1									
08/02/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10		ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-2									
08/02/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07	Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
12/06/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/04/09	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10		ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	Dup.	ND(<50)	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10		ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3									
08/02/07		ND(<50)	150	ND(<250)	3	ND(<2)	3	ND	ND(<2)
12/06/07		64	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08		ND(<50)	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08		ND(<50)	ND(<130)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08		77	ND(<130)	ND(<250)	5	ND(<2)	7	ND	ND(<2)
03/04/09		58	180	ND(<250)	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09		ND(<50)	150	ND(<250)	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	Dup.	ND(<50)	160	ND(<250)	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09		76	170	ND(<250)	3.6	7.1	6.1	8.3	ND(<3)
11/18/09		ND(<50)	250	ND(<250)	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10		ND(<50)	190	ND(<250)	2.2	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10		ND(<50)	210	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10		ND(<50)	370	ND(<250)	1.9	ND(<1)	2.9	ND(<3)	ND(<3)
12/02/10		ND(<50)	ND(<130)	ND(<250)	1.5	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-4								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	160	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-6									
08/03/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	Dup.	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-7									
06/24/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10		ND(<250)	ND(<130)	ND(<250)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<15)	ND(<15)
09/08/10	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-8									
06/24/10		ND(<50)	240	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10		ND(<50)	250	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10		ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-9									
06/24/10		ND(<50)	480	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10	Dup.	ND(<50)	**530**	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10		ND(<50)	370	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10		ND(<50)	320	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Equipment Blank								
08/02/07 (MW-8)	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08 (MW-8)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<50)	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample was not tested for indicated analyte

* - Cleanup level dependent on BTEX concentrations

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms after 5/13/10

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	-	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	22,000	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	21,000	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	-	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3
03/18/10	1.9	21,000	4,400	16,600	1.5	ND(<0.29)	16	ND(<0.05)	4.1
06/23/10	3.6	25,000	4,200	20,800	0.68	ND(<0.29)	13	ND(<0.05)	4.5
09/09/10	**6.3**	32,000	4,000	28,000	2.8	ND(<0.29)	0.69	ND(<0.05)	5.5
12/02/10	3.5	27,000	4,400	22,600	0.62	ND(<0.29)	14	ND(<0.05)	4

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	27,000	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	27,000	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	24,000	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	25,000	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	24,000	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
03/18/10	**7.5**	27,000	6,000	21,000	13	ND(<0.29)	1.6	ND(<0.05)	5.4
03/18/10 Dup.	**9.1**	26,000	6,000	20,000	4.4	ND(<0.29)	1.9	ND(<0.05)	5.3
06/23/10	**10**	24,000	4,400	19,600	3.9	ND(<0.29)	2.2	ND(<0.05)	5.5
09/09/10	**22**	22,000	4,400	17,600	6.9	ND(<0.29)	0.73	ND(<0.05)	5.4
12/02/10	**6.5**	28,000	7,000	21,000	6.1	ND(<0.29)	3.3	ND(<0.05)	6.1

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID		Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
		EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
			EPA 200.8 (in 2010)							
MTCA Method A:		**5**								
	units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-3										
08/02/07		ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07		ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08		ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08		ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08		ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09		ND(<5)	37,000	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09		ND(<5)	35,000	7,600	27,400	16	ND(<0.4)	1.3	0.08	13
06/04/09	Dup.	ND(<5)	35,000	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09		1.7	40,000	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09		2.3	35,000	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
03/18/10		ND(<1.8)	34,000	5,400	28,600	7.8	ND(<0.29)	3.4	ND(<0.05)	11
06/23/10		2.3	37,000	5,400	31,600	13	ND(<0.29)	3.0	ND(<0.05)	14
09/09/10		**5.7**	35,000	5,000	30,000	8.8	8	27.0	ND(<0.05)	12
12/02/10		ND(<1.8)	25,000	5,600	19,400	10	ND(<0.29)	18.0	ND(<0.05)	10

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	23	NA	3.4
06/04/09	ND(<5)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
03/18/10	ND(<1.8)	ND(<220)	0	ND	0.07	ND(<0.29)	20	ND(<0.05)	2.6
06/23/10	ND(<1.8)	ND(<220)	0	ND	0.38	ND(<0.29)	16	ND(<0.05)	2.5
09/09/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	8	26	ND(<0.05)	2.5
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	73	ND(<0.05)	3.2

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	-640	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
03/18/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.7	ND(<0.05)	2.1
06/23/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.6	ND(<0.05)	2.1
09/09/10	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.1	ND(<0.05)	2.0
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.0	ND(<0.05)	4.8

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	14,000	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	16,000	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	21,000	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
03/18/10	**6.0**	12,000	10,000	2,000	3.2	ND(<0.29)	5.2	ND(<0.05)	7.9
06/24/10	**7.1**	19,000	4,000	15,000	4.9	ND(<0.29)	6.9	ND(<0.05)	9.7
09/09/10	**15.0**	26,000	4,600	21,400	6.7	ND(<0.29)	2.6	ND(<0.05)	11.0
12/02/10	**6.5**	18,000	5,000	13,000	7.1	ND(<0.29)	6.9	ND(<0.05)	9.5

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-7									
06/24/10	**6.6**	25,000	3,400	21,600	3.7	ND(<0.29)	1.2	ND(<0.05)	11.0
09/08/10	**5.3**	29,000	5,000	24,000	3.7	ND(<0.29)	1.0	ND(<0.05)	11.0
09/08/10 Dup.	4.9	28,000	NA	NA	4.0	ND(<0.29)	0.28	ND(<0.05)	12.0
12/01/10	**7.6**	33,000	6,400	26,600	5.2	ND(<0.29)	0.67	ND(<0.05)	11.0
MW-8									
06/24/10	2.7	34,000	5,400	28,600	4.7	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.9
09/08/10	2.5	33,000	3,800	29,200	9.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.7
12/01/10	2.5	29,000	5,400	23,600	5.9	ND(<0.29)	2.3	ND(<0.05)	8.5
12/01/10 Dup.	2.5	29,000	NA	NA	3.4	ND(<0.29)	2.0	ND(<0.05)	8.6
MW-9									
06/24/10	3.8	28,000	4,000	24,000	8.5	ND(<0.29)	1.5	ND(<0.05)	7.1
06/24/10 Dup.	3.7	28,000	NA	NA	13.0	ND(<0.29)	1.2	ND(<0.05)	7.1
9/8/2010	2.8	25,000	3,000	22,000	15.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.5
12/1/2010	3.0	30,000	4,000	26,000	8.8	ND(<0.29)	0.48	ND(<0.05)	6.5

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
MTCA Method A:	**5**								
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Equipment Blank									
08/02/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<5)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09 (MW-8)	ND(<5)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)
03/18/10 (MW-8)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.81	ND(<0.05)	2.2
06/24/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	0.26	ND(<0.29)	ND(<0.26)	ND(<0.05)	0.27
09/08/10 (MW-11)	ND(<1.8)	240	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
12/01/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-

* Filtered field sample was used for analysis

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample was not tested for indicated analyte

Bold - Concentration exceeded MTCA Method A cleanup level

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms after 5/13/10

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
MW-1				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/23/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA
MW-2				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/23/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
MW-3				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	4
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/23/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA
MW-4				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/23/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
MW-5				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/23/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA
MW-6				
8/2/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/12/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/24/10	NA	NA	NA	NA
09/09/10	NA	NA	NA	NA
12/02/10	NA	NA	NA	NA

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
MW-7				
06/24/10	ND(<0.20)	1.7	2.7	1.9
09/08/10	ND(<0.20)	ND(<0.44)	2.4	6.5
09/08/10 Dup.	ND(<0.20)	ND(<0.44)	2.3	8.2
12/01/10	ND(<0.20)	ND(<0.44)	1.2	ND(<0.62)
MW-8				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	2.0
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/01/10 Dup.	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
MW-9				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	4.2
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
Equipment Blank				
8/3/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/6/2007	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/13/108	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
9/16/2008	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
3/4/2009	NA	NA	NA	NA
6/4/2009	NA	NA	NA	NA
9/2/2009	NA	NA	NA	NA
11/18/2009	NA	NA	NA	NA
3/18/2010	NA	NA	NA	NA
06/24/10	NA	NA	NA	NA
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	7.3
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample was not tested for indicated analyte

Table 5. Groundwater Chemistry Parameters

Well ID	Date	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	8/2/2007	16.63	0.575	0.24	6.87	-125.9
	12/6/2007	9.2	0.475	0.00	6.90	132
	3/12/2008	9.0	0.401	1.71	7.10	136
	6/16/2008	13.0	0.599	*	6.70	28
	9/15/2008	16.1	0.737	*	7.07	-84
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.66	0.497	4.03	6.62	69
	3/4/2009	-	-	0.4	-	-
	6/4/2009	13.33	0.634	1.47	6.27	-39
	9/2/2009	16.98	0.999	1.32	6.55	-113
	11/18/2009	12.04	-	0.00	7.13	33
	3/18/2010	9.08	0.667	0.00	8.16	-62
	6/23/2010	13.85	Meter Error	0.00	8.22	-98
	9/9/2010	15.84	0.793	1.12	7.73	-122
	12/2/2010	11.58	Meter Error	0.40	8.58	-70
MW-2	8/2/2007	15.88	0.609	0.13	6.67	-107.2
	12/6/2007	10.8	0.748	0.00	7.00	-115
	3/12/2008	9.1	0.725	0.00	7.40	-166
	6/16/2008	12.4	0.713	*	6.90	-160
	9/15/2008	16.0	0.762	*	6.96	-129
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.83	0.758	3.95	6.94	-132
	3/4/2009	-	-	0.2	-	-
	6/4/2009	14.62	0.727	1.07	6.47	-123
	9/2/2009	17.55	0.999	1.52	6.49	-121
	11/18/2009	11.95	-	0.00	8.50	-113
	3/18/2010	10.10	0.836	0.00	8.28	-117
	6/23/2010	14.82	Meter Error	0.00	8.42	-141
	9/9/2010	16.95	0.749	1.10	7.53	-114
	12/2/2010	11.88	Meter Error	0.38	8.71	-84
MW-3	8/2/2007	16.48	1.028	0.16	6.48	-84.2
	12/6/2007	9.7	0.772	0.00	6.70	-87
	3/12/2008	9.5	1.050	0.00	7.20	-154
	6/16/2008	13.2	0.822	*	6.80	-138
	9/15/2008	17.5	1.060	*	6.84	-122
	10/29/2008	-	-	0.10	-	-
	3/4/2009	9.03	0.866	4.06	6.72	-112
	3/4/2009	-	-	0.1	-	-
	6/4/2009	14.22	0.778	0.80	6.32	-104
	9/2/2009	16.97	0.930	1.23	6.34	-102
	11/18/2009	12.34	-	0.00	8.06	-88
	3/18/2010	10.29	0.722	0.00	8.08	-96
	6/23/2010	14.74	Meter Error	0.00	8.05	-113
	9/9/2010	16.92	0.95	1.37	7.15	-79
	12/2/2010	11.39	Meter Error	0.57	8.19	-19

Table 5. Groundwater Chemistry Parameters

Well ID	Date	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-4	8/3/2007	16.98	0.337	2.08	6.46	127.3
	12/6/2007	13.0	0.643	0.00	6.80	100
	3/12/2008	10.3	0.609	0.05	7.10	85
	6/16/2008	14.8	0.540	*	6.80	61
	9/15/2008	18.2	0.592	*	6.84	112
	10/29/2008	-	-	0.20	-	-
	3/4/2009	10.07	0.606	5.03	6.77	105
	3/4/2009	-	-	1.8	-	-
	6/4/2009	15.44	0.507	1.49	6.31	106
	9/2/2009	17.94	0.999	1.27	6.36	119
	11/18/2009	13.34	-	0.28	6.60	118
	3/18/2010	10.70	0.513	0.00	7.70	62
	6/23/2010	15.81	Meter Error	0.17	7.66	37
	9/9/2010	18.03	0.655	2.02	6.97	24
	12/2/2010	12.80	3.66	1.06	7.36	83
MW-5	8/3/2007	17.74	0.343	4.85	7.54	84.2
	12/6/2007	10.2	0.412	6.87	7.80	138
	3/12/2008	9.3	0.207	4.22	8.00	79
	6/16/2008	14.5	0.186	*	7.00	76
	9/15/2008	18.3	0.349	*	7.48	111
	10/29/2008	-	-	3.80	-	-
	3/4/2009	8.48	0.213	6.37	7.05	222
	3/4/2009	-	-	4.3	-	-
	6/4/2009	14.86	0.185	1.65	6.33	14
	9/2/2009	17.98	0.503	1.30	6.59	49
	11/18/2009	12.30	0.241	0.04	7.22	29
	3/18/2010	9.87	0.197	0.00	7.49	151
	6/23/2010	16.32	0.164	0.99	7.51	146
	9/9/2010	18.40	0.316	1.03	7.08	51
	12/2/2010	11.02	0.211	4.71	6.74	134
MW-6	8/3/2007	16.52	0.436	0.19	6.23	16.5
	12/6/2007	10.3	0.394	0.00	6.60	-50
	3/12/2008	9.0	0.413	0.00	6.90	-107
	6/16/2008	13.7	0.426	*	6.30	-85
	9/15/2008	16.5	0.492	*	6.48	-84
	10/29/2008	-	-	0.10	-	-
	3/4/2009	8.25	0.333	6.39	6.53	-73
	3/4/2009	-	-	0.4	-	-
	6/4/2009	13.58	0.358	0.87	5.98	-61
	9/2/2009	16.32	0.710	0.98	6.18	-78
	11/18/2009	12.76	0.346	0.00	7.24	-8
	3/18/2010	9.37	0.227	0.00	7.80	-34
	6/24/2010	14.99	0.395	0.34	7.74	-52
	9/9/2010	16.93	0.502	1.44	6.88	-45
	12/2/2010	10.56	Meter Error	0.28	8.10	-3

Table 5. Groundwater Chemistry Parameters

Well ID	Date	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-7	6/24/2010	15.73	Meter Error	0.79	7.96	-90
	9/8/2010	16.83	0.632	1.24	7.24	-98
	12/1/2010	14.33	1.71	0.62	7.03	-87
MW-8	6/24/2010	15.15	0.874	0.16	8.58	-195
	9/8/2010	17.63	0.505	0.57	7.80	-174
	12/1/2010	12.41	3.18	0.56	7.96	-155
MW-9	6/24/2010	14.18	0.584	0.00	8.63	-179
	9/8/2010	15.95	0.354	0.02	8.07	-185
	12/1/2010	12.52	Meter Error	0.62	8.87	-145

* = DO probe membrane malfunctioned during sample collection event

DO readings were verified on October 29, 2008, using a Hach HQ10 optical type DO probe.

DO readings were verified on March 4, 2009, using a Hach HQ10 optical type DO probe.

APPENDIX A

Soil Borelogs

Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-7**
Location: Near entrance to parking lot
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 9 ft
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Very coarse gravel fill. Brown, loose, moist. Pieces of brick noted.		0.0	NS	
5 - 6.5'	Sandy silt with gravel, gray, firm, moist	2.2.9	0.0	NS	
7.5 - 9'	Sandy silt with gravel, gray, firm, wet	4.4.6	0.0	NS	**X**
12.5 - 13.5'	Sandy silt with gravel, gray, firm, very wet	4.4.5			
13.5 - 14'	Clayey silt, gray, firm, moist		0.0	NS	
17.5 - 19'	Clayey silt, gray, firm, moist	5.7.12	0.0	NS	

WHATCOM ENVIRONMENTAL SERVICES INC.

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-8**
Location: West of MW-1
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
5 - 7.5'	No recovery.	4.11.4			
7.5 - 8.5'	Sand, brown, loose, wet	3.5.4			
8.5 - 9'	Sandy gravel, brown, loose, wet		1.0	VSS	
12.5 - 14'	Little recovery. Wood debris present. Gravelly sand, dark brown, loose, wet	14.14.9	2.5	SS	**X**

WHATCOM ENVIRONMENTAL SERVICES INC.

www.whatcomenvironmental.com

Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-9**
Location: Northwest of MW-2
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Gravel with brick pieces and wood debris. Pocket of water in hole at 4' with heavy to moderate sheen.				
5 - 6.5'	Silty sand with minor gravel, black, coarse, wet. Encountered metal debris.	4.6.4	0.4	SS	
7.5 - 9'	Sand, dark brown to black, loose, wet. Encountered brick.	4.6.9	0.9	SS	
12.5 - 14'	Gravelly sand, black with organics, loose, wet. Oil globules observed in sample.	7.15.11	6.0	HS (globules)	**X**

WHATCOM ENVIRONMENTAL SERVICES INC.

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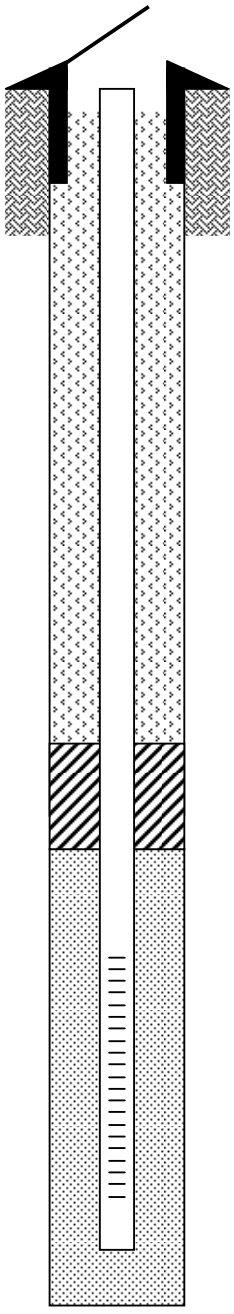
Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

2.58'

4.67'

7.58'

17.58'

18.0'

19.0'

Elevations (feet): Top of Casing:
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Total Depth: 19 ft.

Coordinate System:

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm^2)
6/23/2010	10.15	9.4	7.96	meter error

Comments:

Project: 210 McKenzie Additional Wells

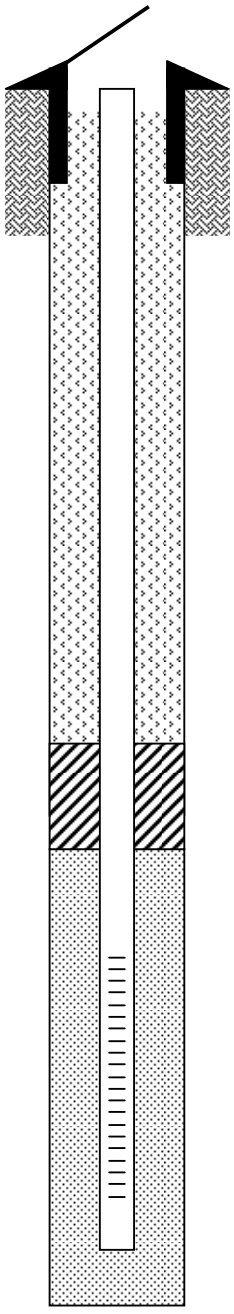
Location: Post Point parking lot entrance

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW-7

Ecology Well ID: **BBA-940**

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

4.83'

14.83'

15.33'

15.33'

Elevations (feet): Top of Casing:
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Total Depth: 15 ft.

Coordinate System:

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm^2)
6/23/2010	3.74	15.65	8.58	874

Comments:

Project: 210 McKenzie Additional Wells

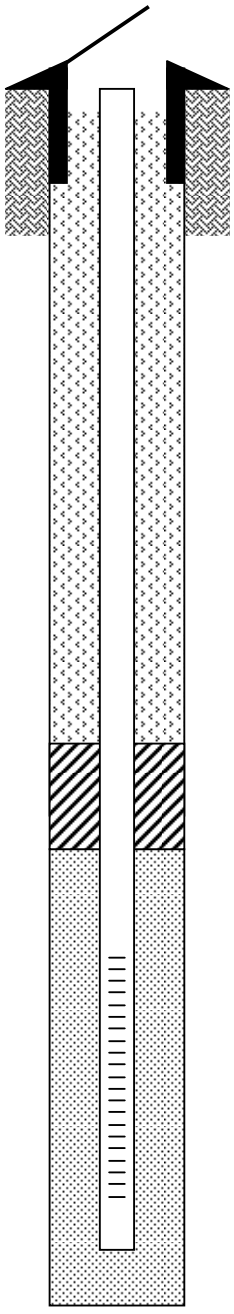
Location: West of MW-1

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW-8

Ecology Well ID: **BBA-941**

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

0.83'

1.83'

4.83'

15.17'

15.17'

15.17'

Elevations (feet): Top of Casing:
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Total Depth: 15 ft.

Coordinate System:

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm^2)
6/23/2010	3.19	15.66	8.63	584

Comments:

Project: 210 McKenzie Additional Wells

Location: Northwest of MW-2

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW-9

Ecology Well ID: **BBA-942**

APPENDIX B

Soil Sample Laboratory Analytical Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells
CLIENT SAMPLE ID: 5/13/2010 B-7 8-8.5 ft
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	3.0	1	MG/KG	5/17/2010	DLC
Benzene	EPA-8021	ND	0.030	1	MG/KG	5/17/2010	DLC
Toluene	EPA-8021	ND	0.050	1	MG/KG	5/17/2010	DLC
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	5/17/2010	DLC
Xylenes	EPA-8021	ND	0.20	1	MG/KG	5/17/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	25	1	MG/KG	5/14/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	50	1	MG/KG	5/14/2010	EBS
Mercury	EPA-7471	0.038	0.020	1	MG/KG	5/21/2010	GAP
Arsenic	EPA-6020	2.6	0.12	1	MG/KG	5/28/2010	GAP
Cadmium	EPA-6020	ND	0.20	1	MG/KG	5/28/2010	GAP
Chromium	EPA-6020	43	0.12	1	MG/KG	5/28/2010	GAP
Lead	EPA-6020	4.3	0.12	1	MG/KG	5/28/2010	GAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells
CLIENT SAMPLE ID: 5/13/2010 B-8 12.5 ft
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	3.0	1	MG/KG	5/17/2010	DLC
Benzene	EPA-8021	ND	0.030	1	MG/KG	5/17/2010	DLC
Toluene	EPA-8021	ND	0.050	1	MG/KG	5/17/2010	DLC
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	5/17/2010	DLC
Xylenes	EPA-8021	ND	0.20	1	MG/KG	5/17/2010	DLC
TPH-Diesel Range	NWTPH-DX	2,500	120	5	MG/KG	5/14/2010	EBS
TPH-Oil Range	NWTPH-DX	3,100	250	5	MG/KG	5/14/2010	EBS
Mercury	EPA-7471	0.055	0.020	1	MG/KG	5/21/2010	GAP
Arsenic	EPA-6020	49	1.2	10	MG/KG	5/28/2010	GAP
Cadmium	EPA-6020	ND	2.0	10	MG/KG	5/28/2010	GAP
Chromium	EPA-6020	270	1.2	10	MG/KG	5/28/2010	GAP
Lead	EPA-6020	1,000	1.2	10	MG/KG	5/28/2010	GAP

Chromatogram indicates that it is likely that sample contains light oil.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells
CLIENT SAMPLE ID: 5/13/2010 B-9 12.5 ft
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	3.9	1	MG/KG	5/17/2010	DLC
Benzene	EPA-8021	ND	0.046	1	MG/KG	5/17/2010	DLC
Toluene	EPA-8021	ND	0.077	1	MG/KG	5/17/2010	DLC
Ethylbenzene	EPA-8021	ND	0.077	1	MG/KG	5/17/2010	DLC
Xylenes	EPA-8021	ND	0.31	1	MG/KG	5/17/2010	DLC
TPH-Diesel Range	NWTPH-DX	26,000	660	20	MG/KG	5/14/2010	EBS
TPH-Oil Range	NWTPH-DX	40,000	1,300	20	MG/KG	5/14/2010	EBS
Mercury	EPA-7471	0.042	0.020	1	MG/KG	5/21/2010	GAP
Arsenic	EPA-6020	51	1.9	10	MG/KG	5/28/2010	GAP
Cadmium	EPA-6020	ND	3.1	10	MG/KG	5/28/2010	GAP
Chromium	EPA-6020	170	1.8	10	MG/KG	5/28/2010	GAP
Lead	EPA-6020	220	1.8	10	MG/KG	5/28/2010	GAP

Chromatogram indicates that it is likely that sample contains bunker C.
* TPH volatile range. Reporting limit raised due to low percent solids.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1005054-01	NWTPH-GX	TFT	100%
1005054-01	EPA-8021	TFT	96%
1005054-01	NWTPH-DX	C25	101%
1005054-02	NWTPH-GX	TFT	90%
1005054-02	EPA-8021	TFT	86%
1005054-02 5X Dilution	NWTPH-DX	C25	116%
1005054-03	NWTPH-GX	TFT	65%
1005054-03	EPA-8021	TFT	S1
1005054-03 20X Dilution	NWTPH-DX	C25	S2

S1- Surrogate outside of control limits due to matrix effect.
S2- Surrogate outside of control limits due to dilution.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
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DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-051310S	Soil	NWTPH-GX	TPH-Volatile Range	ND(<3.0)	MG/KG
MB-051310S	Soil	EPA-8021	Benzene	ND(<0.030)	MG/KG
MB-051310S	Soil	EPA-8021	Toluene	ND(<0.050)	MG/KG
MB-051310S	Soil	EPA-8021	Ethylbenzene	ND(<0.050)	MG/KG
MB-051310S	Soil	EPA-8021	Xylenes	ND(<0.20)	MG/KG
MB-051410S	Soil	NWTPH-DX	TPH-Diesel Range	ND(<25)	MG/KG
MB-051410S	Soil	NWTPH-DX	TPH-Oil Range	ND(<50)	MG/KG
MBLK-5212010	Soil	EPA-7471	Mercury	ND(<0.020)	MG/KG
MB-052810S	Soil	EPA-6020	Arsenic	ND(<0.12)	MG/KG
MB-052810S	Soil	EPA-6020	Cadmium	ND(<0.20)	MG/KG
MB-052810S	Soil	EPA-6020	Chromium	ND(<0.12)	MG/KG
MB-052810S	Soil	EPA-6020	Lead	ND(<0.12)	MG/KG

APPROVED BY:

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
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Suite 101
Bellingham, WA 98225

DATE: 5/28/2010
ALS JOB#: 1005054
DATE RECEIVED: 5/14/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: Post Point Monitoring Wells

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
700	Soil	NWTPH-GX	TPH-Volatile Range	500	87%	90%	3
700	Soil	EPA-8021	Benzene	20	90%	84%	6
700	Soil	EPA-8021	Toluene	20	95%	90%	6
700	Soil	EPA-8021	Ethylbenzene	20	92%	87%	5
700	Soil	EPA-8021	Xylenes	60	96%	91%	6
701	Soil	NWTPH-DX	TPH-Diesel Range	250	96%	95%	0
R69049	Soil	EPA-7471	Mercury	100	101%	100%	1
734	Soil	EPA-6020	Arsenic	100	97%	97%	0
734	Soil	EPA-6020	Cadmium	100	98%	99%	1
734	Soil	EPA-6020	Chromium	100	102%	103%	0
734	Soil	EPA-6020	Lead	100	102%	102%	0

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

APPENDIX C

Arsenic Speciation Study Laboratory Analytical Data

Total Metals and Arsenic Speciation in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

1317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

			Total Metals, μg/L (ppb)			Arsenic Speciation, μg/L (ppb) as As					
CAS number	sample ID	filtered	Fe	Mn	As	Σ_{spec} As	TIAs	As(III)	As(V)	MMAs	DMAs
K1000567-001	MW-2	UF	26,869	1,103	7.43	7.08	7.08	8.19	< 1.2	< 0.2	< 0.8
		0.4 μm	27,256	1,079	7.14	7.35	7.35	8.38	< 1.1	< 0.2	< 0.8
K1000567-002	MW-5	UF	364.9	76.4	0.72	0.511	0.511	0.142	0.369	< 0.004	< 0.02
		0.4 μm	6.3	18.2	0.52	0.488	0.488	0.095	0.393	< 0.004	< 0.02
K1000567-003	MW-6	UF	18,052	2,642	7.00	7.33	7.33	7.21	0.12	< 0.08	< 0.4
		0.4 μm	15,279	2,670	6.14	6.29	6.29	6.11	0.18	< 0.08	< 0.4
K1000567-004	filter blank	0.4 μm	< 2	< 0.003	< 0.02	< 0.01	< 0.006	< 0.0005	< 0.006	< 0.0008	< 0.004
K1000567-005	trip blank	UF	< 2	< 0.003	< 0.02	< 0.01	< 0.006	< 0.0005	< 0.006	< 0.0008	< 0.004

Total Metals and Arsenic Speciation in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

1317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

			Total Metals, µg/L (ppb)			Arsenic Speciation, µg/L (ppb) as As					
CAS number	sample ID	filtered	Fe	Mn	As	Σ_{spec} As	TIAs	As(III)	As(V)	MMAs	DMAs
method blanks	blank-1		-2	-0.161	0.00	0.04	0.017	0.0015	0.017	0.0005	0.002
	blank-2		-3	-0.158	-0.01	0.03	0.014	0.0015	0.014	0.0005	0.001
	blank-3		-2	-0.159	0.00	0.03	0.012	0.0012	0.012	0.0010	0.002
	blank-4		-2	-0.158	-0.01	0.03	0.013	0.0012	0.013	0.0006	0.004
	estimated MDL		**2**	**0.003**	**0.02**	**0.01**	**0.006**	**0.0005**	**0.006**	**0.0008**	**0.004**
	aliquot (mL)		10	10	10	sum	50	50	difference	50	50
K1000567-001	MW-2 rep 1	UF					7.53	7.95		< 0.2	< 0.8
	MW-2 rep 2	UF					6.63	8.44		< 0.2	< 0.8
	mean						7.08	8.19		< 0.2	< 0.8
	RPD (%)						12.7	6.0		*na*	*na*
K1000567-001	spike level						20.00	20.00		20.00	20.00
	MW-2 + MS	UF					28.29	32.35		19.83	19.33
	% recovery						106.1	120.8		99.2	96.7
	MW-2 + MSD	UF					26.30	30.14		22.02	19.28
	% recovery						96.12	109.7		110.1	96.4
	mean						27.29	31.24		20.93	19.31
	RPD (%)						7.3	7.1		11.0	0.2

Total Metals and Arsenic Speciation in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

1317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

CAS number	sample ID	filtered	Total Metals, µg/L (ppb)			Arsenic Speciation, µg/L (ppb) as As					
			Fe	Mn	As	Σ_{spec} As	TIAs	As(III)	As(V)	MMAs	DMAs
TIAs 2nd source	true value					100.0					
	measured					104.8	104.3			0.5	< 1.9
	% recovery					104.8					
As(III) 2nd source	true value							100.0			
	measured							102.7			
	% recovery							102.7			
MMAs 2nd source	true value					100.0					
	measured					99.5	5.4			94.2	< 1.9
	% recovery					99.5					
DMAs 2nd source	true value					100.0					
	measured					102.3	< 3.1			8.2	94.0
	% recovery					102.3					
analytical method		in-line	ICP-MS	ICP-MS	ICP-MS	sum	HG-AAS	HG-AAS	difference	HG-AAS	HG-AAS
EPA equivalent method		M-1669	M-1638	M-1638	M-1638	M-1632	M-1632	M-1632	M-1632	M-1632	M-1632
date analyzed		field	12-Feb-10	12-Feb-10	12-Feb-10	27-Jan-10	27-Jan-10	2-Feb-10	difference	27-Jan-10	27-Jan-10

Ancillary Parameters in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

CAS number	sample ID	filtered	total solids, mg/L		$[O_2]$	$[S^{=}]$	pH		ORP
			TSS	TDS	(mg/L)	(mg/L)	field	lab	(mV)
K1000567-001	MW-2	UF	51.6	791	0.0	0.042	8.37	6.92	-121
		filt	--	--	--	--	--	--	--
K1000567-002	MW-5	UF	9.72	212	0.0	0.030	6.47	6.95	189
		filt	--	--	--		--	--	--
K1000567-003	MW-6	UF	118	298	0.0	0.042	7.79	6.37	-55
		filt	--	--	--	--	--	--	--
K1000567-004	filter blank	filt	--	--	--	< 0.003	--	--	--
K1000567-005	trip blank	UF	0.0	--	--	< 0.003	--	6.25	--

Ancillary Parameters in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

CAS number	sample ID	filtered	total solids, mg/L		$[O_2]$	$[S^{=}]$	pH		ORP
			TSS	TDS	(mg/L)	(mg/L)	field	lab	(mV)
method blanks	blank-1		-0.07	-102		< 0.003			
	blank-2		-0.10						
	blank-3		-0.03						
	blank-4		***na***						
	estimated MDL		**0.11**			**0.003**			
	aliquot (mL)		300						
	MW-5 rep 1					0.029			
	MW-5 rep 2					0.030			
	mean					0.030			
	RPD (%)					3.3			
	matrix spike level					0.171			
	MW-5 + MS					0.187			
	% recovery					91.8			
	MW-5 + MSD					0.189			

Ancillary Parameters in Well Water (City of Bellingham)

analyzed by

Columbia Analytical Services Trace Metals Research Group

317 South 13th Avenue, Kelso WA 98626 USA

phone: 360-501-3356 e-mail1: nbloom@caslab.com e-mail2: nbloom@ymail.com

CAS number	sample ID	filtered	total solids, mg/L		$[O_2]$	$[S^=]$	pH		ORP
			TSS	TDS	(mg/L)	(mg/L)	field	lab	(mV)
	% recovery					93.0			
	mean					0.188			
	RPD (%)					1.1			
K1000567-001	MW-2 rep 1	UF	51.5						
	MW-2 rep 2	UF	51.7						
	mean		51.6						
	RPD (%)		0.4						
analytical method		in-line	gravimetry	gravimetry	electrode	colorimetric	electrode	electrode	electrode
EPA equivalent method		M-1669	M-340.2	M-160.1	M-360.1	M-377.1	M-150.1	M-150.1	n/a
date analyzed			26-Jan-06	27-Jan-06	18-Jan-06	24-Jan-06	18-Jan-06	7-Dec-05	field

Columbia Analytical Services™

800.695.7222
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CHAIN of CUSTODY

Page _1__ of __2_

Client: **City of Bellingham**
2221 Pacific Street
Bellingham, WA 98229

Project: **210 McKenzie Groundwater**

Project Manager **Peg Wendling**

Telephone No. 360 778 7872

Fax No. 360 778 7851

Method of Shipment

Fed Ex Priority

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time		Total As, Fe, Mn	Dissolved As, Fe, Mn	Sulfide	Arsenic Speciation (see attached bid per N. Bloom)	TSS									Turn Around Time (working days)
MW-2 (filtered)		**1**		**x**				**x**	1/19/10				**x**												
MW-2 (unfiltered)		**1**		**x**				**x**	1/19/10			**x**													
MW-2 (filtered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**										
MW-2 (unfiltered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**										
MW-2 (unfiltered NaOH preserved)		**1**		**x**			**x**		1/19/10					**x**											
MW-2 (unfiltered)		**1**		**x**				**x**	1/19/10							**x**									
MW-5 (filtered)		**1**		**x**				**x**	1/19/10				**x**												
MW-5 (unfiltered)		**1**		**x**				**x**	1/19/10			**x**													
MW-5 (filtered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**										
MW-5 (unfiltered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**										
MW-5 (unfiltered NaOH preserved)		**1**		**x**			**x**		1/19/10					**x**											
MW-5 (unfiltered)		**1**		**x**				**x**	1/19/10							**x**									

MARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by laboratory	Date Time

Lab Work No.

Columbia Analytical Services™

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Client: **City of Bellingham**
2221 Pacific Street
Bellingham, WA 98229

Project Manager **Peg Wendling**

CHAIN of CUSTODY

Project: **210 McKenzie Groundwater**

Telephone No. 360 778 7872 Fax No. 360 778 7851

Method of Shipment

Fed Ex Priority

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time		Total As, Fe, Mn	Dissolved As, Fe, Mn	Sulfide	Arsenic Speciation (see attached bid per N. Bloom)	TSS								Turn Around Time (working days)
MW-6 (filtered)		**1**		**x**				**x**	1/19/10				**x**											
MW-6 (unfiltered)		**1**		**x**				**x**	1/19/10			**x**												
MW-6 (filtered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**									
MW-6 (unfiltered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**									
MW-6 (unfiltered NaOH preserved)		**1**		**x**			**x**		1/19/10					**x**										
MW-6 (unfiltered)		**1**		**x**				**x**	1/19/10							**x**								
Method Blank (filtered)		**1**		**x**				**x**	1/19/10				**x**											
Method Blank (filtered & HCl preserved)		**2**		**x**			**x**		1/19/10						**x**									

MARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by laboratory	Date Time

Lab Work No.

APPENDIX D

Groundwater Elevation Contour Maps

N
Subject Property Boundary
15.67'
MW-1
15.80'
MW-4
15.75'
MW-2
19.28'
MW-6
Flow Direction : 0.0142 ft/ft
Flow Direction : 0.0255 ft/ft
23.36'
MW-5
15.60'
MW-3
16'
17'
18'
19'
20'
21'
22'
23'
Monitoring Wells
Power Posts
Catch Basins
Fence
Sanitary Sewer Line
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation
All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph
0 15 30 60 90 120
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Groundwater Elevations 3/18/10
210 McKenzie Remediation
3/18/10
Figure D-1

N
Subject Property Boundary
9.40'
MW-7
15.65'
MW-8
15.61'
MW-1
18.04'
MW-6
15.66'
MW-9
15.74'
MW-4
15.71'
MW-2
19'
Flow Direction : 0.0146 ft/ft
Flow Direction : 0.0351 ft/ft
22.24'
MW-5
15.40'
MW-3
16'
17'
18'
19'
20'
21'
22'
15'
Monitoring Wells
Power Posts
Catch Basins
Fence
Sanitary Sewer Line
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation
All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph
0 15 30 60 90 120
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Groundwater Elevations 6/23/10
210 McKenzie Remediation
6/23/10
Figure D-2

N
Subject Property Boundary
9.46'
MW-7
14.06'
MW-8
13.81'
MW-1
14.04'
MW-9
14.26'
MW-4
14.06'
MW-2
16.37'
MW-6
Flow Direction : 0.0064 ft/ft
17'
Flow Direction : 0.0239 ft/ft
18.20'
MW-5
13.95'
MW-3
15'
16'
17'
18'
14'
Monitoring Wells
Power Posts
Catch Basins
Fence
Sanitary Sewer Line
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation
All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph
0 15 30 60 90 120
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Groundwater Elevations 9/8/10
210 McKenzie Remediation
9/8/10
Figure D-3

N
Subject Property Boundary
10.59'
MW-7
16.37'
MW-8
16.37'
MW-1
20.22'
MW-6
16.35'
MW-9
16.46'
MW-4
16.41'
MW-2
Flow Direction : 0.0146 ft/ft
22'
21'
Flow Direction : 0.0377 ft/ft
24.44'
MW-5
16.10'
MW-3
16'
17'
18'
19'
20'
21'
22'
23'
24'
Monitoring Wells
Power Posts
Catch Basins
Fence
Sanitary Sewer Line
Groundwater Contour Lines
14.00' = Groundwater elevation in well
14' = Groundwater contour elevation
All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph
0 15 30 60 90 120
Feet
1 inch equals 60 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Groundwater Elevations 12/1/10
210 McKenzie Remediation
12/1/10
Figure D-4

APPENDIX E

Groundwater Sample Laboratory Analytical Data

First Quarter 2010 Groundwater Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	1.5	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	16	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	1.9	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	21,000	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	4.1	0.25	1	MG/L	3/29/2010	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	140	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	13	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	1.6	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	7.5	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	27,000	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	5.4	0.25	1	MG/L	3/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

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DATE: 4/2/2010
ALS JOB#: 1003096
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/24/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/24/2010	DLC
Benzene	EPA-8021	2.2	1.0	1	UG/L	3/24/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/24/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/24/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/24/2010	DLC
TPH-Diesel Range	NWTPH-DX	190	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	7.8	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	3.4	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	ND	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	34,000	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	11	0.25	1	MG/L	3/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/24/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/24/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/24/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/24/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/24/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/24/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	0.070	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	20	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	ND	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	ND	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	2.6	0.25	1	MG/L	3/29/2010	ARI

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
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DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	ND	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	3.7	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	ND	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	ND	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	2.1	0.25	1	MG/L	3/29/2010	ARI

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DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-6
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	3.2	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	5.2	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	6.0	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	12,000	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	7.9	0.25	1	MG/L	3/29/2010	ARI

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DATE: 4/2/2010
ALS JOB#: 1003096
DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-7
ALS SAMPLE #: -07

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	150	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	4.4	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	1.9	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	9.1	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	26,000	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	5.3	0.25	1	MG/L	3/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie
CLIENT SAMPLE ID: 3/18/2010 MW-8
ALS SAMPLE #: -08

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	3/23/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	3/23/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	3/23/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	3/19/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	3/19/2010	EBS
Methane	RSK-175	ND	0.010	1	MG/L	3/31/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	3/19/2010	GAP
Sulfate	EPA-300.0	0.81	0.26	1	MG/L	3/19/2010	GAP
Arsenic	EPA 200.8	ND	1.8	1	UG/L	3/22/2010	GAP
Iron	EPA 200.8	ND	220	1	UG/L	3/22/2010	GAP
Sulfide	EPA-376.1	ND	0.050	1	MG/L	3/24/2010	ARI
Total Organic Carbon (TOC)	SM5310B	2.2	0.25	1	MG/L	3/29/2010	ARI

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1003096-01	NWTPH-GX	TFT	94%
1003096-01	EPA-8021	TFT	97%
1003096-01	NWTPH-DX	C25	99%
1003096-02	NWTPH-GX	TFT	100%
1003096-02	EPA-8021	TFT	103%
1003096-02	NWTPH-DX	C25	102%
1003096-03	NWTPH-GX	TFT	105%
1003096-03	EPA-8021	TFT	104%
1003096-03	NWTPH-DX	C25	98%
1003096-04	NWTPH-GX	TFT	102%
1003096-04	EPA-8021	TFT	108%
1003096-04	NWTPH-DX	C25	94%
1003096-05	NWTPH-GX	TFT	103%
1003096-05	EPA-8021	TFT	101%
1003096-05	NWTPH-DX	C25	90%
1003096-06	NWTPH-GX	TFT	99%
1003096-06	EPA-8021	TFT	103%
1003096-06	NWTPH-DX	C25	90%
1003096-07	NWTPH-GX	TFT	89%
1003096-07	EPA-8021	TFT	97%
1003096-07	NWTPH-DX	C25	84%
1003096-08	NWTPH-GX	TFT	94%
1003096-08	EPA-8021	TFT	110%
1003096-08	NWTPH-DX	C25	85%

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DATE RECEIVED: 3/19/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-031910W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-031910W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-031910W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-031910W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-031910W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-031910W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-031610W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-031610W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-3312010	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-3192010	Water	EPA-300.0	Phosphate	ND(<0.29)	MG/L
MBLK-3192010	Water	EPA-300.0	Sulfate	ND(<0.26)	MG/L
MBLK-3222010	Water	EPA 200.8	Arsenic	ND(<1.8)	UG/L
MBLK-3222010	Water	EPA 200.8	Iron	ND(<220)	UG/L
MB-R68344	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

APPROVED BY:

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CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
607	Water	NWTPH-GX	TPH-Volatile Range	500	77%	76%	1
607	Water	EPA-8021	Methyl T-Butyl Ether	40	103%	102%	1
607	Water	EPA-8021	Benzene	20	92%	91%	0
607	Water	EPA-8021	Toluene	20	90%	90%	0
607	Water	EPA-8021	Ethylbenzene	20	89%	89%	0
607	Water	EPA-8021	Xylenes	60	92%	92%	0
595	Water	NWTPH-DX	TPH-Diesel Range	500	84%	92%	10
R68392	Water	RSK-175	Methane	100	105%	101%	4
R68335	Water	EPA-300.0	Phosphate	100	101%	106%	5
R68335	Water	EPA-300.0	Sulfate	100	104%	110%	6
R68325	Water	EPA 200.8	Arsenic	100	87%	102%	16
R68325	Water	EPA 200.8	Iron	10000	85%	101%	17
R68344	Water	SM5310B	Total Organic Carbon (TOC)	100	95%	NA	NA

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1003096

Date 3/19/10 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental
PROJECT MANAGER: Thom - Harold
ADDRESS: 228 E. Champion St. #101
Bellingham WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: thom@whatcom-m-
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-1	3/18/10	10:15	Water	1
2. MW-2		11:45		2
3. MW-3		1330		3
4. MW-4		14:45		4
5. MW-5		1600		5
6. MW-6		1230		6
7. MW-7		1215		7
8. MW-8		1815		8
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021X EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐
	X	X	X	X									X	
	X	X	X	X									X	

OTHER (Specify)

Metals: Iron (Fe)	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
X	X	X	X	X	X	9	
						9	
						9	
						9	
						9	
						9	
						9	
X	X	X	X	X	X	9	

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 3/19/10 @ 0840
Received By:
2. Relinquished By:
Received By: Shawn Robinson ALS 3/19/10 1:25

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Second Quarter 2010 Groundwater Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/23/2010 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	180	130	1	UG/L	6/25/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/25/2010	EBS
Methane	RSK-175	0.68	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/24/2010	GAP
Sulfate	EPA-300.0	13	0.26	1	MG/L	6/24/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	3.6	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	25,000	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	4.5	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/23/2010 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	170	130	1	UG/L	6/25/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/25/2010	EBS
Methane	RSK-175	3.9	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/24/2010	GAP
Sulfate	EPA-300.0	2.2	0.26	1	MG/L	6/24/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	10	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	24,000	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	5.5	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/23/2010 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	2.6	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	210	130	1	UG/L	6/25/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/25/2010	EBS
Methane	RSK-175	13	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/24/2010	GAP
Sulfate	EPA-300.0	3.0	0.26	1	MG/L	6/24/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	2.3	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	37,000	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	14	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/23/2010 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	6/25/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/25/2010	EBS
Methane	RSK-175	0.38	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/24/2010	GAP
Sulfate	EPA-300.0	16	0.26	1	MG/L	6/24/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	ND	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	ND	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	2.5	0.25	1	MG/L	6/29/2010	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/23/2010 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	160	130	1	UG/L	6/25/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/25/2010	EBS
Methane	RSK-175	ND	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/24/2010	GAP
Sulfate	EPA-300.0	3.6	0.26	1	MG/L	6/24/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	ND	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	ND	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	2.1	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1006157-01	NWTPH-GX	TFT	102%
1006157-01	EPA-8021	TFT	105%
1006157-01	NWTPH-DX	C25	123%
1006157-02	NWTPH-GX	TFT	103%
1006157-02	EPA-8021	TFT	107%
1006157-02	NWTPH-DX	C25	115%
1006157-03	NWTPH-GX	TFT	73%
1006157-03	EPA-8021	TFT	75%
1006157-03	NWTPH-DX	C25	115%
1006157-04	NWTPH-GX	TFT	112%
1006157-04	EPA-8021	TFT	114%
1006157-04	NWTPH-DX	C25	111%
1006157-05	NWTPH-GX	TFT	107%
1006157-05	EPA-8021	TFT	107%
1006157-05	NWTPH-DX	C25	112%

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-062110W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-062110W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-062110W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-062110W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-062110W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-062110W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-062410W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-062410W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-762010	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-6242010	Water	EPA-300.0	Phosphate	ND(<0.29)	MG/L
MBLK-6242010	Water	EPA-300.0	Sulfate	ND(<0.26)	MG/L
MB-062810W		EPA 200.8 (Dissolved)	Arsenic	ND(<1.8)	UG/L
MB-062810W		EPA 200.8 (Dissolved)	Iron	ND(<220)	UG/L
MB-R69533	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/7/2010
ALS JOB#: 1006157
DATE RECEIVED: 6/24/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
808	Water	NWTPH-GX	TPH-Volatile Range	500	88%	94%	7
808	Water	EPA-8021	Methyl T-Butyl Ether	40	98%	102%	3
808	Water	EPA-8021	Benzene	20	98%	105%	6
808	Water	EPA-8021	Toluene	20	93%	100%	7
808	Water	EPA-8021	Ethylbenzene	20	90%	97%	8
808	Water	EPA-8021	Xylenes	60	89%	96%	8
815	Water	NWTPH-DX	TPH-Diesel Range	500	84%	88%	5
R69529	Water	RSK-175	Methane	100	95%	91%	4
R69534	Water	EPA-300.0	Phosphate	100	104%	108%	4
R69534	Water	EPA-300.0	Sulfate	100	102%	107%	5
823		EPA 200.8 (Dissolved)	Arsenic	100	99%	98%	1
823		EPA 200.8 (Dissolved)	Iron	10000	99%	98%	1
R69533	Water	SM5310B	Total Organic Carbon (TOC)	100	94%	NA	NA

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1006157

Date 6-23-10 Page 1 Of 1

PROJECT ID: 210 McKenzie Ave
REPORT TO COMPANY: WES
PROJECT MANAGER: Thom - Harold
ADDRESS: 228 E. Champion #101
Ts'ham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tdavis@...
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021/EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe)	Methane	Sulfide	Sulfate	Phosphate	Total organic Carbon		NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	6/23/10	1015	Water	1		X	X	X	X									X	X	X	X	X	X			9	
2. MW-2		1115		2																						9	
3. MW-3		1215		3																						9	
4. MW-4		1315		4																						9	
5. MW-5		1415		5		X	X	X	X									X	X	X	X	X	X			9	
6.																											
7.																											
8.																											
9.																											
10.																											

OTHER (Specify)

SPECIAL INSTRUCTIONS: Metals Samples were Field Filtered for total dissolved

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: _____
Received By: _____
2. Relinquished By: _____
Received By: Shawn Roberson ALS 6/24/10 9:05

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: (5) Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

* Turnaround request less than standard may incur Rush Charges

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-6
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	6/29/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/29/2010	EBS
Methane	RSK-175	**4.9**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	**6.9**	0.26	1	MG/L	6/25/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**7.1**	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	**19,000**	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**9.7**	0.25	1	MG/L	6/29/2010	ARI

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** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-7
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	6/29/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/29/2010	EBS
Methane	RSK-175	**3.7**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	**1.2**	0.26	1	MG/L	6/25/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	7/12/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**6.6**	1.8	1	UG/L	6/28/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	**1.7**	0.44	1	UG/L	6/28/2010	RAL
Chromium	EPA 200.8 (Dissolved)	**2.7**	0.79	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	**25,000**	220	1	UG/L	6/28/2010	RAL
Lead	EPA 200.8 (Dissolved)	**1.9**	0.62	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	6/29/2010	ARI

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APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-8
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	**240**	130	1	UG/L	6/29/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/29/2010	EBS
Methane	RSK-175	**4.7**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	ND	0.26	1	MG/L	6/25/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	7/12/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**2.7**	1.8	1	UG/L	6/28/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	6/28/2010	RAL
Chromium	EPA 200.8 (Dissolved)	ND	0.79	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	**34,000**	220	1	UG/L	6/28/2010	RAL
Lead	EPA 200.8 (Dissolved)	ND	0.62	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**7.9**	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-9
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	**480**	130	1	UG/L	6/29/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/29/2010	EBS
Methane	RSK-175	**8.5**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	**1.5**	0.26	1	MG/L	6/25/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	7/12/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**3.8**	1.8	1	UG/L	6/28/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	6/28/2010	RAL
Chromium	EPA 200.8 (Dissolved)	ND	0.79	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	**28,000**	220	1	UG/L	6/28/2010	RAL
Lead	EPA 200.8 (Dissolved)	ND	0.62	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**7.1**	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-10
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	**530**	130	1	UG/L	6/29/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/29/2010	EBS
Methane	RSK-175	**13**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	**1.2**	0.26	1	MG/L	6/25/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**3.7**	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	**28,000**	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**7.1**	0.25	1	MG/L	6/29/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

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Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 6/24/2010 MW-11
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	6/25/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	6/25/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	6/25/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	6/28/2010	EBS
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	6/28/2010	EBS
Methane	RSK-175	**0.26**	0.010	1	MG/L	7/6/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	6/25/2010	GAP
Sulfate	EPA-300.0	ND	0.26	1	MG/L	6/25/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	ND	1.8	1	UG/L	6/28/2010	RAL
Iron	EPA 200.8 (Dissolved)	ND	220	1	UG/L	6/28/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	6/30/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**0.27**	0.25	1	MG/L	6/29/2010	ARI

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CERTIFICATE OF ANALYSIS

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228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1006163-01	NWTPH-GX	TFT	98%
1006163-01	EPA-8021	TFT	98%
1006163-01	NWTPH-DX	C25	102%
1006163-02	NWTPH-GX	TFT	101%
1006163-02	EPA-8021	TFT	100%
1006163-02	NWTPH-DX	C25	96%
1006163-03	NWTPH-GX	TFT	100%
1006163-03	EPA-8021	TFT	100%
1006163-03	NWTPH-DX	C25	98%
1006163-04	NWTPH-GX	TFT	99%
1006163-04	EPA-8021	TFT	102%
1006163-04	NWTPH-DX	C25	102%
1006163-05	NWTPH-GX	TFT	93%
1006163-05	EPA-8021	TFT	102%
1006163-05	NWTPH-DX	C25	106%
1006163-06	NWTPH-GX	TFT	102%
1006163-06	EPA-8021	TFT	100%
1006163-06	NWTPH-DX	C25	100%

APPROVED BY:

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DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-062510W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-062510W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-062510W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-062510W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-062510W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-062510W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-062410W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-062410W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-762010	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-6252010	Water	EPA-300.0	Phosphate	ND(<0.29)	MG/L
MBLK-6252010	Water	EPA-300.0	Sulfate	ND(<0.26)	MG/L
MBLK-7122010	Water	EPA-245.1 (Dissolved)	Mercury	ND(<0.20)	UG/L
MB-062810W	Water	EPA 200.8 (Dissolved)	Arsenic	ND(<1.8)	UG/L
MB-062810W	Water	EPA 200.8 (Dissolved)	Cadmium	ND(<0.44)	UG/L
MB-062810W	Water	EPA 200.8 (Dissolved)	Chromium	ND(<0.79)	UG/L
MB-062810W	Water	EPA 200.8 (Dissolved)	Iron	ND(<220)	UG/L
MB-062810W	Water	EPA 200.8 (Dissolved)	Lead	ND(<0.62)	UG/L
MB-R69527	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

APPROVED BY:

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Bellingham, WA 98225

DATE: 7/21/2010
ALS JOB#: 1006163
DATE RECEIVED: 6/25/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
817	Water	NWTPH-GX	TPH-Volatile Range	500	96%	99%	3
817	Water	EPA-8021	Methyl T-Butyl Ether	40	101%	105%	4
817	Water	EPA-8021	Benzene	20	103%	108%	5
817	Water	EPA-8021	Toluene	20	97%	102%	5
817	Water	EPA-8021	Ethylbenzene	20	95%	99%	5
817	Water	EPA-8021	Xylenes	60	93%	97%	5
815	Water	NWTPH-DX	TPH-Diesel Range	500	84%	88%	5
R69529	Water	RSK-175	Methane	100	95%	91%	4
R69528	Water	EPA-300.0	Phosphate	100	97%	97%	0
R69528	Water	EPA-300.0	Sulfate	100	106%	110%	4
R69782	Water	EPA-245.1 (Dissolved)	Mercury	100	101%	97%	4
823	Water	EPA 200.8 (Dissolved)	Arsenic	100	99%	98%	1
823	Water	EPA 200.8 (Dissolved)	Cadmium	100	100%	99%	1
823	Water	EPA 200.8 (Dissolved)	Chromium	100	98%	98%	0
823	Water	EPA 200.8 (Dissolved)	Iron	10000	99%	98%	1
823	Water	EPA 200.8 (Dissolved)	Lead	100	99%	99%	0
R69527	Water	SM5310B	Total Organic Carbon (TOC)	100	94%	NA	NA

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

1006163

Date 6-24-10 Page 1 Of 1

PROJECT ID: 210 McKenzie Ave
REPORT TO COMPANY: Thom - Harold @ WES
PROJECT MANAGER:
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tlaws@...
INVOICE TO COMPANY:
ATTENTION: Same ↑
ADDRESS:

ANALYSIS REQUESTED / OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-6	6/24/10	1305	Water	1
2. MW-7		1430		2
3. MW-8		1530		3
4. MW-9		1630		4
5. MW-10		1700		5
6. MW-11		1215		6
7.				
8.				
9.				
10.				

	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe)	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-6		X	X	X	X								*	X		X	X	X	X	X	X	9	
2. MW-7													*									9	
3. MW-8													*									9	
4. MW-9													*									9	
5. MW-10																						9	
6. MW-11		X	X	X	X									X		X	X	X	X	X	X	9	

SPECIAL INSTRUCTIONS: Metals samples Field Filtered for Total dissolved analysis ↳ New Analysis Request

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 6/24/10 @ 1715
Received By: Shawn Rubin ALS 6/25/10 10:30
2. Relinquished By: WES 7/7/10 @ 1315
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5) 3 1 SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Jul. 7. 2010 11:47AM No. 2919 P. 2

Third Quarter 2010 Groundwater Data

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells
CLIENT SAMPLE ID: 9/8/2010 MW-7
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	250	5	UG/L	9/9/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	15	5	UG/L	9/9/2010	DLC
Benzene	EPA-8021	ND	5.0	5	UG/L	9/9/2010	DLC
Toluene	EPA-8021	ND	5.0	5	UG/L	9/9/2010	DLC
Ethylbenzene	EPA-8021	ND	5.0	5	UG/L	9/9/2010	DLC
Xylenes	EPA-8021	ND	15	5	UG/L	9/9/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/10/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/10/2010	DLC
Methane	RSK-175	**3.7**	0.050	5	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/9/2010	GAP
Sulfate	EPA-300.0	**1.0**	0.26	1	MG/L	9/9/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	9/10/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**5.3**	1.8	1	UG/L	9/17/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	9/17/2010	RAL
Chromium	EPA 200.8 (Dissolved)	**2.4**	0.79	1	UG/L	9/17/2010	RAL
Iron	EPA 200.8 (Dissolved)	**29,000**	220	1	UG/L	9/17/2010	RAL
Lead	EPA 200.8 (Dissolved)	**6.5**	0.62	1	UG/L	9/17/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	9/11/2010	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells
CLIENT SAMPLE ID: 9/8/2010 MW-8
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/9/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
TPH-Diesel Range	NWTPH-DX	**250**	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**9.4**	0.10	10	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/9/2010	GAP
Sulfate	EPA-300.0	ND	0.26	1	MG/L	9/9/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	9/10/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**2.5**	1.8	1	UG/L	9/17/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	9/17/2010	RAL
Chromium	EPA 200.8 (Dissolved)	ND	0.79	1	UG/L	9/17/2010	RAL
Iron	EPA 200.8 (Dissolved)	**33,000**	220	1	UG/L	9/17/2010	RAL
Lead	EPA 200.8 (Dissolved)	**2.0**	0.62	1	UG/L	9/17/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**7.7**	0.25	1	MG/L	9/11/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells
CLIENT SAMPLE ID: 9/8/2010 MW-9
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/9/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
TPH-Diesel Range	NWTPH-DX	**370**	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**15**	0.25	25	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/9/2010	GAP
Sulfate	EPA-300.0	ND	0.26	1	MG/L	9/9/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	9/10/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**2.8**	1.8	1	UG/L	9/17/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	9/17/2010	RAL
Chromium	EPA 200.8 (Dissolved)	ND	0.79	1	UG/L	9/17/2010	RAL
Iron	EPA 200.8 (Dissolved)	**25,000**	220	1	UG/L	9/17/2010	RAL
Lead	EPA 200.8 (Dissolved)	**4.2**	0.62	1	UG/L	9/17/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**6.5**	0.25	1	MG/L	9/11/2010	ARI

Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells
CLIENT SAMPLE ID: 9/8/2010 MW-10
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/9/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**4.0**	0.050	5	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/9/2010	GAP
Sulfate	EPA-300.0	**0.28**	0.26	1	MG/L	9/9/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	9/10/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	**4.9**	1.8	1	UG/L	9/17/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	9/17/2010	RAL
Chromium	EPA 200.8 (Dissolved)	**2.3**	0.79	1	UG/L	9/17/2010	RAL
Iron	EPA 200.8 (Dissolved)	**28,000**	220	1	UG/L	9/17/2010	RAL
Lead	EPA 200.8 (Dissolved)	**8.2**	0.62	1	UG/L	9/17/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells
CLIENT SAMPLE ID: 9/8/2010 MW-11
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/9/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/9/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/9/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/10/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/10/2010	DLC
Methane	RSK-175	ND	0.010	1	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/9/2010	GAP
Sulfate	EPA-300.0	ND	0.26	1	MG/L	9/9/2010	GAP
Mercury	EPA-245.1 (Dissolved)	ND	0.20	1	UG/L	9/10/2010	RAL
Arsenic	EPA 200.8 (Dissolved)	ND	1.8	1	UG/L	9/17/2010	RAL
Cadmium	EPA 200.8 (Dissolved)	ND	0.44	1	UG/L	9/17/2010	RAL
Chromium	EPA 200.8 (Dissolved)	ND	0.79	1	UG/L	9/17/2010	RAL
Iron	EPA 200.8 (Dissolved)	**240**	220	1	UG/L	9/17/2010	RAL
Lead	EPA 200.8 (Dissolved)	**7.3**	0.62	1	UG/L	9/17/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	ND	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1009068-01 5X Dilution	NWTPH-GX	TFT	92%
1009068-01 5X Dilution	EPA-8021	TFT	99%
1009068-01	NWTPH-DX	C25	76%
1009068-02	NWTPH-GX	TFT	99%
1009068-02	EPA-8021	TFT	110%
1009068-02	NWTPH-DX	C25	108%
1009068-03	NWTPH-GX	TFT	93%
1009068-03	EPA-8021	TFT	105%
1009068-03	NWTPH-DX	C25	106%
1009068-04	NWTPH-GX	TFT	100%
1009068-04	EPA-8021	TFT	116%
1009068-04	NWTPH-DX	C25	107%
1009068-05	NWTPH-GX	TFT	119%
1009068-05	EPA-8021	TFT	134%
1009068-05	NWTPH-DX	C25	82%

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Suite 101
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DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-090910W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-090910W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-090910W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-090910W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-090910W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-090910W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-090910W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-090910W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-9212010	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-992010	Water	EPA-300.0	Phosphate	ND(<0.29)	MG/L
MBLK-992010	Water	EPA-300.0	Sulfate	ND(<0.26)	MG/L
MBLK-9102010	Water	EPA-245.1 (Dissolved)	Mercury	ND(<0.20)	UG/L
MB-091310W	Water	EPA 200.8 (Dissolved)	Arsenic	ND(<1.8)	UG/L
MB-091310W	Water	EPA 200.8 (Dissolved)	Cadmium	ND(<0.44)	UG/L
MB-091310W	Water	EPA 200.8 (Dissolved)	Chromium	ND(<0.79)	UG/L
MB-091310W	Water	EPA 200.8 (Dissolved)	Iron	ND(<220)	UG/L
MB-091310W	Water	EPA 200.8 (Dissolved)	Lead	1.3	UG/L
MB-R70618	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009068
DATE RECEIVED: 9/9/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Additional Wells

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
1040	Water	NWTPH-GX	TPH-Volatile Range	500	90%	93%	3
1040	Water	EPA-8021	Methyl T-Butyl Ether	40	105%	109%	3
1040	Water	EPA-8021	Benzene	20	117%	120%	3
1040	Water	EPA-8021	Toluene	20	104%	107%	3
1040	Water	EPA-8021	Ethylbenzene	20	100%	102%	2
1040	Water	EPA-8021	Xylenes	60	96%	98%	3
1051	Water	NWTPH-DX	TPH-Diesel Range	500	94%	91%	3
R70624	Water	RSK-175	Methane	100	96%	97%	0
R70615	Water	EPA-300.0	Phosphate	100	98%	99%	1
R70615	Water	EPA-300.0	Sulfate	100	91%	87%	4
R70616	Water	EPA-245.1 (Dissolved)	Mercury	100	105%	104%	1
1052	Water	EPA 200.8 (Dissolved)	Arsenic	100	100%	100%	1
1052	Water	EPA 200.8 (Dissolved)	Cadmium	100	100%	101%	1
1052	Water	EPA 200.8 (Dissolved)	Chromium	100	100%	100%	0
1052	Water	EPA 200.8 (Dissolved)	Iron	10000	101%	101%	0
1052	Water	EPA 200.8 (Dissolved)	Lead	100	103%	104%	1
R70618	Water	SM5310B	Total Organic Carbon (TOC)	100	97%	NA	NA

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Everett, WA 98208
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(206) 292-9059 Seattle
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http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1009068

Date 9/8/10 Page 1 Of 1

PROJECT ID: 210 McKenzie Additional Wells
REPORT TO COMPANY: WES
PROJECT MANAGER: Thom
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: FAX:
P.O. NUMBER: E-MAIL: tlavise
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-7	9/8/10	1230	Water	1
2. MW-8		1350		2
3. MW-9		1500		3
4. MW-10		1245		4
5. MW-11		1545		5
6.				
7.				
8.				
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☒ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐
	X	X	X	X								X		
	X	X	X	X										
	X	X	X	X										
	X	X	X	X										
	X	X	X	X								X		

OTHER (Specify)

Metals: Iron (Fe)	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
X	X	X	X	X	X	9	
X	X	X	X	X	X	9	
X	X	X	X	X	X	9	
X	X	X	X	X	X	9	
X	X	X	X	X	X	9	

SPECIAL INSTRUCTIONS Metals Sample Field Filtered & preserved for Total Dissolved Analysis

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] 9/9/10 WES 8:15
   Received By:
2. Relinquished By:
   Received By: Shawn Robertson ALS 9/9/10 10:15

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/10/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**2.8**	0.050	5	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**0.69**	0.26	1	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**6.3**	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	**32,000**	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**5.5**	0.25	1	MG/L	9/11/2010	ARI

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/10/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**6.9**	0.10	10	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**0.73**	0.26	1	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**22**	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	**22,000**	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**5.4**	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/11/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/11/2010	DLC
Benzene	EPA-8021	**1.9**	1.0	1	UG/L	9/11/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/11/2010	DLC
Ethylbenzene	EPA-8021	**2.9**	1.0	1	UG/L	9/11/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/11/2010	DLC
TPH-Diesel Range	NWTPH-DX	**370**	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**8.8**	0.10	10	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	**8.0**	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**27**	2.6	10	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**5.7**	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	**35,000**	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**12**	0.25	1	MG/L	9/11/2010	ARI

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/10/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	ND	0.010	1	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	**8.0**	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**26**	5.2	20	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	ND	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	ND	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**2.5**	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-5
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/10/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	ND	0.010	1	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**7.1**	0.26	1	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**2.2**	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	ND	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**2.0**	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave
CLIENT SAMPLE ID: 9/9/2010 MW-6
ALS SAMPLE #: -06

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	ND	50	1	UG/L	9/10/2010	DLC
Methyl T-Butyl Ether	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
Benzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Toluene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Ethylbenzene	EPA-8021	ND	1.0	1	UG/L	9/10/2010	DLC
Xylenes	EPA-8021	ND	3.0	1	UG/L	9/10/2010	DLC
TPH-Diesel Range	NWTPH-DX	ND	130	1	UG/L	9/13/2010	DLC
TPH-Oil Range	NWTPH-DX	ND	250	1	UG/L	9/13/2010	DLC
Methane	RSK-175	**6.7**	0.10	10	MG/L	9/21/2010	CCN
Phosphate	EPA-300.0	ND	0.29	1	MG/L	9/10/2010	GAP
Sulfate	EPA-300.0	**2.6**	0.26	1	MG/L	9/10/2010	GAP
Arsenic	EPA 200.8 (Dissolved)	**15**	1.8	1	UG/L	9/18/2010	RAL
Iron	EPA 200.8 (Dissolved)	**26,000**	220	1	UG/L	9/18/2010	RAL
Sulfide	EPA-376.1	ND	0.050	1	MG/L	9/14/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	9/11/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
1009079-01	NWTPH-GX	TFT	105%
1009079-01	EPA-8021	TFT	113%
1009079-01	NWTPH-DX	C25	85%
1009079-02	NWTPH-GX	TFT	104%
1009079-02	EPA-8021	TFT	115%
1009079-02	NWTPH-DX	C25	86%
1009079-03	NWTPH-GX	TFT	96%
1009079-03	EPA-8021	TFT	108%
1009079-03	NWTPH-DX	C25	96%
1009079-04	NWTPH-GX	TFT	100%
1009079-04	EPA-8021	TFT	112%
1009079-04	NWTPH-DX	C25	84%
1009079-05	NWTPH-GX	TFT	99%
1009079-05	EPA-8021	TFT	113%
1009079-05	NWTPH-DX	C25	92%
1009079-06	NWTPH-GX	TFT	88%
1009079-06	EPA-8021	TFT	110%
1009079-06	NWTPH-DX	C25	88%

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MBG-091010W	Water	NWTPH-GX	TPH-Volatile Range	ND(<50)	UG/L
MB-091010W	Water	EPA-8021	Methyl T-Butyl Ether	ND(<3.0)	UG/L
MB-091010W	Water	EPA-8021	Benzene	ND(<1.0)	UG/L
MB-091010W	Water	EPA-8021	Toluene	ND(<1.0)	UG/L
MB-091010W	Water	EPA-8021	Ethylbenzene	ND(<1.0)	UG/L
MB-091010W	Water	EPA-8021	Xylenes	ND(<3.0)	UG/L
MB-091310W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-091310W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MBLK-9212010	Water	RSK-175	Methane	ND(<0.010)	MG/L
MBLK-9102010	Water	EPA-300.0	Phosphate	ND(<0.29)	MG/L
MBLK-9102010	Water	EPA-300.0	Sulfate	ND(<0.26)	MG/L
MB-091610W	Water	EPA 200.8 (Dissolved)	Arsenic	ND(<1.8)	UG/L
MB-091610W	Water	EPA 200.8 (Dissolved)	Iron	ND(<220)	UG/L
MB-R70595	Water	SM5310B	Total Organic Carbon (TOC)	ND(<0.25)	MG/L

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St.
Suite 101
Bellingham, WA 98225

DATE: 9/23/2010
ALS JOB#: 1009079
DATE RECEIVED: 9/10/2010
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Thom Davis
CLIENT PROJECT ID: 210 McKenzie Ave

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
1047	Water	NWTPH-GX	TPH-Volatile Range	500	80%	87%	8
1047	Water	EPA-8021	Methyl T-Butyl Ether	40	101%	106%	4
1047	Water	EPA-8021	Benzene	20	111%	113%	1
1047	Water	EPA-8021	Toluene	20	100%	101%	2
1047	Water	EPA-8021	Ethylbenzene	20	95%	97%	2
1047	Water	EPA-8021	Xylenes	60	92%	93%	1
1055	Water	NWTPH-DX	TPH-Diesel Range	500	87%	89%	2
R70624	Water	RSK-175	Methane	100	96%	97%	0
R70606	Water	EPA-300.0	Phosphate	100	98%	99%	1
R70606	Water	EPA-300.0	Sulfate	100	91%	87%	4
1061	Water	EPA 200.8 (Dissolved)	Arsenic	100	99%	99%	0
1061	Water	EPA 200.8 (Dissolved)	Iron	10000	98%	97%	0
R70595	Water	SM5310B	Total Organic Carbon (TOC)	100	97%	NA	NA

APPROVED BY:

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Everett, WA 98208
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(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1009079

Date 9/9/10 Page 1 Of 1

PROJECT ID: 210 Mckenzie
REPORT TO COMPANY: WES
PROJECT MANAGER: Thom
ADDRESS: 228 E Champion # 101
Bhom, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: dlavi3@what---

INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe) Diss	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon		NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. mw-1	9/9/10	1030	Water	1		X	X	X	X									X		X	X	X	X	X	X	9	
2. mw-2		1130		2		X	X	X	X									X		X	X	X	X	X	X	9	
3. mw-3		1230		3		X	X	X	X									X		X	X	X	X	X	X	9	
4. mw-4		1345		4		X	X	X	X									X		X	X	X	X	X	X	9	
5. mw-5		1500		5		X	X	X	X									X		X	X	X	X	X	X	9	
6. mw-6		1630		6		X	X	X	X									X		X	X	X	X	X	Y	9	
7.																											
8.																											
9.																											
10.																											

SPECIAL INSTRUCTIONS Metals Samples Field Filtered into preserved bottle

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 1728 on 9/9/10
Received By:
2. Relinquished By:
Received By: Shawn Rabuan ALS 9/10/10 9:10

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Fourth Quarter 2010 Groundwater Data

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis / Harold Cashman	DATE RECEIVED:	12/2/2010
CLIENT PROJECT:	210 McKenzie - Additional Wells	COLLECTION DATE:	12/1/2010 11:00
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/02/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
TPH-Diesel Range	NWTPH-DX	**320**	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**8.8**	0.25	25	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	**0.48**	0.26	1	MG/L	12/02/2010	GAP
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL
Arsenic	EPA-6020 (Dissolved)	**3.0**	1.8	1	UG/L	12/06/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/06/2010	RAL
Chromium	EPA-6020 (Dissolved)	U	0.79	1	UG/L	12/06/2010	RAL
Iron	EPA-6020 (Dissolved)	**30000**	220	1	UG/L	12/06/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/06/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**6.5**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.9**	12/02/2010	DLC
TFT	EPA-8021	**96.9**	12/02/2010	DLC
C25	NWTPH-DX	**77.7**	12/06/2010	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/15/2010 1012019 -02
CLIENT CONTACT:	Thom Davis / Harold Cashman	DATE RECEIVED:	12/2/2010
CLIENT PROJECT:	210 McKenzie - Additional Wells	COLLECTION DATE:	12/1/2010 12:10
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/02/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
TPH-Diesel Range	NWTPH-DX	**170**	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**5.9**	0.25	25	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	**2.3**	0.26	1	MG/L	12/02/2010	GAP
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL
Arsenic	EPA-6020 (Dissolved)	**2.5**	1.8	1	UG/L	12/06/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/06/2010	RAL
Chromium	EPA-6020 (Dissolved)	U	0.79	1	UG/L	12/06/2010	RAL
Iron	EPA-6020 (Dissolved)	**29000**	220	1	UG/L	12/06/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/06/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**8.5**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.6**	12/02/2010	DLC
TFT	EPA-8021	**93.9**	12/02/2010	DLC
C25	NWTPH-DX	**76.1**	12/06/2010	EBS

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Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/15/2010 1012019 -03
CLIENT CONTACT:	Thom Davis / Harold Cashman	DATE RECEIVED:	12/2/2010
CLIENT PROJECT:	210 McKenzie - Additional Wells	COLLECTION DATE:	12/1/2010 14:00
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/02/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**5.2**	0.10	10	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	**0.67**	0.26	1	MG/L	12/02/2010	GAP
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL
Arsenic	EPA-6020 (Dissolved)	**7.6**	1.8	1	UG/L	12/06/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/06/2010	RAL
Chromium	EPA-6020 (Dissolved)	**1.2**	0.79	1	UG/L	12/06/2010	RAL
Iron	EPA-6020 (Dissolved)	**33000**	220	1	UG/L	12/06/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/06/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**96.1**	12/02/2010	DLC
TFT	EPA-8021	**90.3**	12/02/2010	DLC
C25	NWTPH-DX	**95.1**	12/06/2010	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/15/2010 1012019 -04
CLIENT CONTACT:	Thom Davis / Harold Cashman	DATE RECEIVED:	12/2/2010
CLIENT PROJECT:	210 McKenzie - Additional Wells	COLLECTION DATE:	12/1/2010 15:00
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/02/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**3.4**	0.050	5	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	**2.0**	0.26	1	MG/L	12/02/2010	GAP
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL
Arsenic	EPA-6020 (Dissolved)	**2.5**	1.8	1	UG/L	12/06/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/06/2010	RAL
Chromium	EPA-6020 (Dissolved)	U	0.79	1	UG/L	12/06/2010	RAL
Iron	EPA-6020 (Dissolved)	**29000**	220	1	UG/L	12/06/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/06/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**8.6**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.0**	12/02/2010	DLC
TFT	EPA-8021	**90.6**	12/02/2010	DLC
C25	NWTPH-DX	**78.5**	12/06/2010	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/15/2010 1012019 -05
CLIENT CONTACT:	Thom Davis / Harold Cashman	DATE RECEIVED:	12/2/2010
CLIENT PROJECT:	210 McKenzie - Additional Wells	COLLECTION DATE:	12/1/2010 15:35
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/02/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/02/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/02/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/02/2010	GAP
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL
Arsenic	EPA-6020 (Dissolved)	U	1.8	1	UG/L	12/06/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/06/2010	RAL
Chromium	EPA-6020 (Dissolved)	U	0.79	1	UG/L	12/06/2010	RAL
Iron	EPA-6020 (Dissolved)	U	220	1	UG/L	12/06/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/06/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.1**	12/02/2010	DLC
TFT	EPA-8021	**93.6**	12/02/2010	DLC
C25	NWTPH-DX	**68.1**	12/06/2010	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis / Harold Cashman		
CLIENT PROJECT:	210 McKenzie - Additional Wells		

LABORATORY BLANK RESULTS

MBG-112910W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/29/2010	DLC

MB-112910W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	11/29/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	11/29/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	11/29/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	11/29/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	11/29/2010	DLC

MB-112910W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/30/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	11/30/2010	EBS

MBLK-12132010

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	12/13/2010	CCN

MBLK-1222010

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/02/2010	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/02/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis / Harold Cashman		
CLIENT PROJECT:	210 McKenzie - Additional Wells		

LABORATORY BLANK RESULTS

MBLK-1272010

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7470 (Dissolved)	U	0.20	1	UG/L	12/07/2010	RAL

MB-120210W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020 (Dissolved)	U	1.8	1	UG/L	12/03/2010	RAL
Cadmium	EPA-6020 (Dissolved)	U	0.44	1	UG/L	12/03/2010	RAL
Chromium	EPA-6020 (Dissolved)	U	0.79	1	UG/L	12/03/2010	RAL
Iron	EPA-6020 (Dissolved)	U	220	1	UG/L	12/03/2010	RAL
Lead	EPA-6020 (Dissolved)	U	0.62	1	UG/L	12/03/2010	RAL

MB-R71560

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI

MB-R71654

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/07/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis / Harold Cashman		
CLIENT PROJECT:	210 McKenzie - Additional Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1262 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**85.1**			11/29/2010	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**87.8**	**3**		11/29/2010	DLC

ALS Test Batch ID: 1262 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**96.5**			11/29/2010	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**99.9**	**3**		11/29/2010	DLC
Benzene - BS	EPA-8021	**98.5**			11/29/2010	DLC
Benzene - BSD	EPA-8021	**100**	**1**		11/29/2010	DLC
Toluene - BS	EPA-8021	**96.5**			11/29/2010	DLC
Toluene - BSD	EPA-8021	**97.8**	**1**		11/29/2010	DLC
Ethylbenzene - BS	EPA-8021	**95.5**			11/29/2010	DLC
Ethylbenzene - BSD	EPA-8021	**96.9**	**1**		11/29/2010	DLC
Xylenes - BS	EPA-8021	**96.1**			11/29/2010	DLC
Xylenes - BSD	EPA-8021	**97.6**	**1**		11/29/2010	DLC

ALS Test Batch ID: 1263 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**84.9**			11/30/2010	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**93.7**	**9**		11/30/2010	EBS

ALS Test Batch ID: R71662 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**97.2**			12/13/2010	CCN
Methane - BSD	RSK-175	**97.6**	**0**		12/13/2010	CCN

ALS Test Batch ID: R71594 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**88.0**			12/02/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis / Harold Cashman		
CLIENT PROJECT:	210 McKenzie - Additional Wells		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BSD	EPA-300.0	**80.0**	**9**		12/02/2010	GAP
Sulfate - BS	EPA-300.0	**97.0**			12/02/2010	GAP
Sulfate - BSD	EPA-300.0	**97.0**	**0**		12/02/2010	GAP

ALS Test Batch ID: R71595 - Water by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7470 (Dissolved)	**95.0**			12/07/2010	RAL
Mercury - BSD	EPA-7470 (Dissolved)	**97.0**	**2**		12/07/2010	RAL

ALS Test Batch ID: 1276 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020 (Dissolved)	**101**			12/03/2010	RAL
Arsenic - BSD	EPA-6020 (Dissolved)	**101**	**0**		12/03/2010	RAL
Cadmium - BS	EPA-6020 (Dissolved)	**103**			12/03/2010	RAL
Cadmium - BSD	EPA-6020 (Dissolved)	**102**	**1**		12/03/2010	RAL
Chromium - BS	EPA-6020 (Dissolved)	**97.3**			12/03/2010	RAL
Chromium - BSD	EPA-6020 (Dissolved)	**98.8**	**1**		12/03/2010	RAL
Iron - BS	EPA-6020 (Dissolved)	**100**			12/03/2010	RAL
Iron - BSD	EPA-6020 (Dissolved)	**100**	**0**		12/03/2010	RAL
Lead - BS	EPA-6020 (Dissolved)	**100**			12/03/2010	RAL
Lead - BSD	EPA-6020 (Dissolved)	**100**	**0**		12/03/2010	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012019
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis / Harold Cashman		
CLIENT PROJECT:	210 McKenzie - Additional Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R71654 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**102**			12/07/2010	ARI

APPROVED BY:

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1012019

Date 12/1/10 Page 1 Of 1

PROJECT ID: 210 McKenzie - Additional Wells
REPORT TO COMPANY: Whatcom Env. Svcs
PROJECT MANAGER: Tom - Harold
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 FAX: 752-9573
P.O. NUMBER: E-MAIL: tdavis@--
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 X EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 X RCRA-8 ☐ TAL ☐ Dissolved	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Metals: Iron (Fe) Dissolved	Methane	Sulfide	Sulfate	Phosphate	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-9	12/1/10	1100	Water	1		X	X	X	X								X			X	X	X	X	X	X	9	
X 2. MW-8		1210		2		X	X	X	X								X			X	X	X	X	X	X	9	
3. MW-7		1400		3		X	X	X	X								X			X	X	X	X	X	X	9	
4. MW-10		1500		4		X	X	X	X								X			X	X	X	X	X	X	9	
5. MW-11		1535		5		X	X	X	X								X			X	X	X	X	X	X	9	
6.																											
7.																											
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS: Samples were field filtered.

SIGNATURES (~~Name, Company, Date, Time~~):
1. Relinquished By: WES 12-1-10 @ 1550
Received By:
2. Relinquished By:
Received By: Shawn Roberts AS 12/2/10 9:00

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 10:00
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**7.1**	0.10	10	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**6.9**	0.26	1	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	**6.5**	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	**18000**	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**9.5**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	12/03/2010	DLC
TFT	EPA-8021	**96.8**	12/03/2010	DLC
C25	NWTPH-DX	**84.5**	12/06/2010	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 12:00
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**7.0**	0.26	1	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	U	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	U	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**4.8**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.5**	12/03/2010	DLC
TFT	EPA-8021	**97.4**	12/03/2010	DLC
C25	NWTPH-DX	**88.8**	12/06/2010	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 13:00
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**73**	1.3	5	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	U	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	U	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**3.2**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**111**	12/03/2010	DLC
TFT	EPA-8021	**91.8**	12/03/2010	DLC
C25	NWTPH-DX	**88.4**	12/06/2010	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 14:00
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	**1.5**	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**10**	0.25	25	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**18**	0.26	1	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	U	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	**25000**	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.4**	12/03/2010	DLC
TFT	EPA-8021	**93.3**	12/03/2010	DLC
C25	NWTPH-DX	**96.1**	12/06/2010	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 15:30
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**6.1**	0.25	25	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**3.3**	0.26	1	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	**6.5**	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	**28000**	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**6.1**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.8**	12/03/2010	DLC
TFT	EPA-8021	**92.7**	12/03/2010	DLC
C25	NWTPH-DX	**76.4**	12/06/2010	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	12/3/2010
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	12/2/2010 16:30
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/06/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/06/2010	EBS
Methane	RSK-175	**0.62**	0.010	1	MG/L	12/13/2010	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	**14**	0.26	1	MG/L	12/03/2010	GAP
Arsenic	EPA-6020 (Dissolved)	**3.5**	1.8	1	UG/L	12/09/2010	RAL
Iron	EPA-6020 (Dissolved)	**27000**	220	1	UG/L	12/09/2010	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI
Total Organic Carbon (TOC)	SM5310B	**4.0**	0.25	1	MG/L	12/07/2010	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**88.9**	12/03/2010	DLC
TFT	EPA-8021	**90.7**	12/03/2010	DLC
C25	NWTPH-DX	**73.0**	12/06/2010	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MBG-120310W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/03/2010	DLC

MB-120310W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/03/2010	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/03/2010	DLC

MB-112910W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/30/2010	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	11/30/2010	EBS

MBLK-12132010

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	12/13/2010	CCN

MBLK-1232010

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/03/2010	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/03/2010	GAP

MB-R71629

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/06/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MB-R71629

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY

MB-R71631

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/07/2010	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1274 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**86.2**			12/03/2010	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**87.2**	**1**		12/03/2010	DLC

ALS Test Batch ID: 1274 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**93.1**			12/03/2010	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**94.7**	**1**		12/03/2010	DLC
Benzene - BS	EPA-8021	**93.2**			12/03/2010	DLC
Benzene - BSD	EPA-8021	**94.0**	**0**		12/03/2010	DLC
Toluene - BS	EPA-8021	**90.8**			12/03/2010	DLC
Toluene - BSD	EPA-8021	**92.3**	**1**		12/03/2010	DLC
Ethylbenzene - BS	EPA-8021	**90.0**			12/03/2010	DLC
Ethylbenzene - BSD	EPA-8021	**91.3**	**1**		12/03/2010	DLC
Xylenes - BS	EPA-8021	**90.9**			12/03/2010	DLC
Xylenes - BSD	EPA-8021	**92.6**	**1**		12/03/2010	DLC

ALS Test Batch ID: 1263 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**84.9**			11/30/2010	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**93.7**	**9**		11/30/2010	EBS

ALS Test Batch ID: R71663 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**97.2**			12/13/2010	CCN
Methane - BSD	RSK-175	**97.6**	**0**		12/13/2010	CCN

ALS Test Batch ID: R71626 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**90.0**			12/03/2010	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/15/2010
		ALS JOB#:	1012024
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BSD	EPA-300.0	**82.0**	**9**		12/03/2010	GAP
Sulfate - BS	EPA-300.0	**100**			12/03/2010	GAP
Sulfate - BSD	EPA-300.0	**96.0**	**4**		12/03/2010	GAP

ALS Test Batch ID: R71631 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**101**			12/07/2010	ARI

APPROVED BY:

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 10/2024

Date 12/2/10 Page 1 Of 1

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Thom
ADDRESS: 228 E Champion #101
Bham, WA 98225
PHONE: FAX:
P.O. NUMBER: E-MAIL: thom@e whatco...

INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As) Dissolved	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Methane	Sulfide	Sulfate	Phosphate	Metals: Iron (Fe) - dissolved	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. mw-6	12/2/10	1000	Water	1		X	X	X	X									X		X	X	X	X	X	X	9	
2. mw-5		1200		2																						9	
3. mw-4		1300		3																						9	
4. mw-3		1400		4																						9	
5. mw-2		1530		5																						9	
6. mw-1		1630		6		X	X	X	X									X		X	X	X	X	X	X	9	
7.																											
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS Arsenic sample Field Filtered into preserved (HNO_3) Poly Bottle

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 12/2/10@ 1700
Received By:
2. Relinquished By:
Received By: Shawn Rokuson ALS 12/3/10 9:40

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

2011 ADDITIONAL SITE INVESTIGATION AND GROUNDWATER MONITORING REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FSID# 151016 / VCP# NW2179)

prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

January 12, 2012

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2011 ADDITIONAL SITE INVESTIGATION AND GROUNDWATER MONITORING REPORT 210 MCKENZIE AVENUE BELLINGHAM, WASHINGTON (FSID# 151016 / VCP# NW2179)

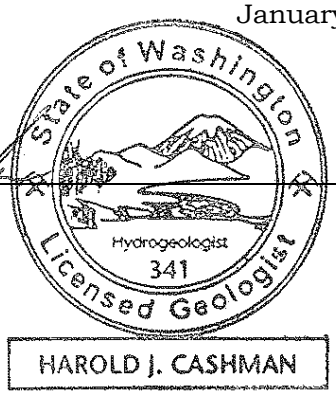
Prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

Prepared by:

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, Washington 98225

January 12, 2012



Harold Cashman
Project Manager

Thomas Davis
QA/QC Reviewer

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EXECUTIVE SUMMARY

This report documents additional subsurface investigation work performed during 2011 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by the City of Bellingham and is located adjacent to the Post Point Wastewater Treatment Plant. The site has been assigned a Facility Site ID Number of 151016 by the Washington Department of Ecology. The site was entered into the Voluntary Cleanup Program (VCP) in 2009 and assigned VCP Number NW2179.

Six wells at the 210 McKenzie Ave. property have been monitored since 2007 and three wells have been monitored since 2010 to assess the groundwater quality on this site. Three additional groundwater monitoring wells were installed in 2011 in an effort to delineate the extent of the release site. The groundwater monitoring system at the site now consists of twelve groundwater monitoring wells. Quarterly groundwater monitoring was conducted in 2011.

Laboratory analytical data indicates that groundwater in the vicinity of the twelve monitoring wells has not been adversely impacted by petroleum compounds. Dissolved arsenic was detected in 2011 in groundwater in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9 and MW-11 at concentrations which exceeded the Model Toxics Control Act (MTCA) Method A target cleanup level for arsenic. The arsenic detections could be the result of past uses of the property or they could be the result of natural causes.

Field observations and soil sample laboratory analytical data collected during the installation of monitoring wells MW-10, MW-11, and MW-12 indicate that the western boundary of the soil contamination area has been delineated. No evidence of soil contamination or buried waste debris was encountered in the borings. Groundwater samples collected from the new wells did not contain petroleum compounds or dissolved metals other than relatively low concentrations of dissolved arsenic.

The site is defined by the extent of contamination caused by the following releases: petroleum hydrocarbons, lead, cadmium, and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in soil, and petroleum hydrocarbons, lead, and arsenic in groundwater. The site investigation data collected over the previous five years have resulted in the complete characterization of the site.

1.0 INTRODUCTION

This report summarizes the additional subsurface investigation work and quarterly groundwater monitoring conducted during 2011 at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by the City of Bellingham and is located adjacent to the Post Point Wastewater Treatment Plant. The location of the subject property and adjacent properties are shown on Figure 1. The regulatory driver for the remedial investigation of the property is the MTCA Cleanup Regulation Chapter 173-340 (Ecology, 2007). The site is being investigated and remediated under the Voluntary Cleanup Program (VCP).

The scope of the investigation consists of quarterly collection and analyses of groundwater samples from twelve groundwater monitoring wells installed at the site. The current monitoring well system consists of wells MW-1 through MW-6 which were installed in 2007, wells MW-7 through MW-9 installed in 2010, and MW-10 through MW-12 installed in 2011. The well locations are shown on Figure 2. The wells are screened from approximately 5 to 15 feet below grade. Groundwater samples were collected during 2011 in March, June, September, and December using a low-flow sample collection method (USEPA, 1998).

Dissolved arsenic has been detected above the MTCA Method A target cleanup level in seven of the twelve monitoring wells installed in a zone of perched groundwater at the site. Based on the results of an arsenic speciation study conducted in 2010 and historical data collected since 2009, the source of the arsenic detected in wells at the site is presumed to be mineral oxides in the aquifer matrix. The reducing conditions documented in the perched groundwater result in the desorption of arsenic from iron oxides.

This report includes a description of additional subsurface investigation work and groundwater monitoring completed at the site in 2011 and supplements data presented in reports previously submitted to Ecology, including: *Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated February 11, 2009; *2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated March 15, 2010; and *2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated March 18, 2011.

2.0 ADDITIONAL REMEDIAL INVESTIGATION

Three additional groundwater monitoring wells were installed in 2011 in an effort to delineate the extent of release site. The new wells were installed in and near the Post Point Wastewater Treatment Plant parking lot and entrance, west of wells MW-7, MW-8 and MW-9. The three new wells were installed by Environmental Drilling Inc. using a hollow-stem auger drill rig on June 7, 2011. The new monitoring wells were identified as MW-10, MW-11, and MW-12. Monitoring well locations are shown on Figure 2.

2.1 Soil Borings and Soil Sample Analytical Results

Subsurface utilities were located prior to drilling, and the three boring locations were pre-excavated to approximately 5 feet below ground surface (bgs) using a vacuum truck. The drill rig equipment was decontaminated prior to drilling each soil boring. The borings were continuously cored to a depth of 15 feet below grade. Soil cores were logged in the field and soil descriptions generally followed ASTM D 2487 'Unified Soil Classification System' procedures for description and identification of soils. The soil borings were identified as B-10, B-11 and B-12. Soil boring logs are included in Appendix A.

The soil cores were evaluated for organic vapors using a photoionization detector (PID) and for petroleum products using sheen tests. Immediately after the soil cores were described a portion of the sample was sheen tested and the remainder of the sample was placed in labeled re-sealable bags. Sheen test results were recorded as NS – no sheen, VSS – very slight sheen, SS – slight sheen, MS – moderate sheen, or HS – heavy sheen. The PID was inserted into the re-sealable bag in order to evaluate the presence of organic vapors, a headspace reading was measured and organic vapor detections in parts per million (ppm) were recorded on the borelogs.

Soil samples were collected from each boring location. Soil samples were collected via EPA Method 5035A. The samples were identified by both the boring number from which they originated and the depth from which they were collected. Soil samples were collected in sample bottles provided by the lab and stored on ice in a cooler immediately following collection. All sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler's name, and the analysis requested. Standard industry

protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

Soil samples collected from the monitoring well borings were analyzed for gasoline range total petroleum hydrocarbons (TPH) using Method NWTPH-Gx; diesel and oil range TPH using Method NWTPH-Dx; benzene, toluene, ethylbenzene, and total xylenes (BTEX) use EPA Method 8021; arsenic, cadmium, chromium and lead using EPA Method 6020; and mercury using Method EPA 7471. The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology.

The soil screening levels for the site were established for unrestricted land use in accordance with the Model Toxics Control Act (MTCA) WAC 173-340. MTCA Method A target cleanup levels for soil are provided in Table 740-1 of WAC 173-340.

2.1.1 Boring B-10

Soil boring B-10 was drilled in the grass area north of the entrance to the Post Point Wastewater Treatment Plant parking lot, approximately 50 feet northwest of MW-7. Soils encountered at the boring location consisted of sandy silt, clayey silt, and silty clay. No petroleum sheens or organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-10 from a depth of 14 feet below ground surface (bgs). The sample did not contain detectable concentrations of gasoline or diesel range TPH, BTEX constituents, or cadmium. Arsenic, chromium, lead, and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.1.2 Boring B-11

Soil boring B-11 was drilled in the grass area west of the entrance to the Post Point Wastewater Treatment Plant parking lot, approximately 60 feet west of well MW-8. Soils encountered at the boring location consisted of gravelly sandy silt and gravelly sand. Very slight petroleum sheens and with no organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-11 from a depth of 14 feet bgs. The sample did not contain detectable concentrations of gasoline or diesel range TPH, BTEX constituents, or cadmium. Arsenic, chromium, lead, and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.1.3 Boring B-12

Soil boring B-12 was drilled in the parking area north of the northeast corner of the Post Point Wastewater Treatment Plant administration building. Soils encountered at the boring location consisted of gravelly sandy silt. Very slight petroleum sheens and with no organic vapors were detected in the soil samples recovered from the boring. The soil boring log is included in Appendix A.

One soil sample was collected from boring B-12 from a depth of 14 feet bgs. The sample did not contain detectable concentrations of gasoline or diesel range TPH, BTEX constituents, or cadmium. Arsenic, chromium, lead, and mercury were detected at concentrations below the MTCA Method A target cleanup levels. Soil sample analytical results are summarized in Table 1. The original laboratory analytical data report is included in Appendix B.

2.2 Groundwater Monitoring Well Installation

Groundwater monitoring wells were installed in each of the soil borings and were identified as MW-10, MW-11 and MW-12. The monitoring wells were installed to a depth of approximately 15 feet below ground surface and were constructed with 2-inch diameter, machine slotted PVC pipe. The well screen lengths are 10 feet and the top of the PVC well casings are protected with flush mounted well monuments. Monitoring well design specifications are included in Appendix A.

The new monitoring wells were developed on June 9, 2011, using disposable bailers to purge each well. Well MW-10 rendered 6 gallons of very turbid water before going dry. Approximately 40 gallons of turbid water was bailed from MW-11. Approximately 20 gallons of turbid water was bailed from MW-12. The new groundwater monitoring wells were surveyed by the City of Bellingham.

3.0 GROUNDWATER MONITORING

Quarterly groundwater monitoring continued at 210 McKenzie Avenue during 2011. Groundwater samples were collected from the groundwater monitoring well network in order to evaluate groundwater quality.

3.1 ARSENIC SPECIATION STUDY

An arsenic speciation study was conducted in January 2010. The study findings were presented in the report dated March 18, 2011. The laboratory data support the hypothesis that the elevated arsenic values are the result of reducing conditions in the perched groundwater. The low oxidation/reduction potential of the groundwater causes ferric iron $Fe^{(III)}$ to be reduced to ferrous iron $Fe^{(II)}$ which allows the adsorbed arsenic to go into solution. Based on the arsenic speciation findings, it appears that the elevated arsenic detected in the perched groundwater is explained by the reducing conditions observed at the site.

3.2 QUARTERLY GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected for laboratory analysis in March, June, September, and December 2011. A low-flow sampling technique, recommended and approved by the U.S. Environmental Protection Agency (USEPA, 1998), was used to sample each monitoring well. The low-flow sampling technique minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. A YSI Model 556 multi probe meter was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected when the water chemistry parameters stabilized.

Groundwater samples were collected in sample bottles provided by the analytical laboratory and stored on ice in a cooler immediately after collection. The sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler’s name, and the analysis requested. Groundwater samples were identified by the monitoring well identification number. One duplicate sample and one equipment blank sample

were also collected during each sampling event. Common industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

3.3 GROUNDWATER FLOW DIRECTION

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor. Depth to water in each well was measured from a marked location on the top of the PVC well casing with an electronic well probe and recorded in the field notebook. Depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the site.

The data indicate that the groundwater flows in a northwesterly direction on the western portion of the property and in a northeasterly direction on the eastern portion of the property. The groundwater surface contours for each quarterly sampling event are included in Appendix C.

3.4 GROUNDWATER SAMPLE RESULTS

Groundwater samples were analyzed for gasoline, diesel, and lube-oil range total petroleum hydrocarbons (TPH) using Methods NWTPH-Gx and NWTPH-Dx, respectively; benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using EPA Method 8021; and dissolved arsenic using EPA Method 7060. Samples were also analyzed for total dissolved iron (EPA 6010), methane (RSK-175), phosphate (EPA 300.0), sulfate (EPA 300.0), sulfide (EPA 376.1), and total organic carbon (TOC) (SM 5310B) in order to explore the relationship between those parameters and arsenic mobilization in the perched groundwater. The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology. All samples were analyzed within the prescribed holding times, and the equipment blank and duplicate sample results were within acceptable limits.

Groundwater analytical data for each monitoring well sample, duplicate samples, and equipment blank samples are summarized in Tables 2, 3, and 4. The original laboratory analytical data reports are provided in Appendix D.

3.4.1 Total Petroleum Hydrocarbons

No gasoline or diesel range TPH, BTEX constituents, or MTBE were detected in groundwater samples collected from wells MW-1, MW-4, MW-5, MW-6, MW-7, MW-10, MW-11, or MW-12 in 2011. Low concentrations of diesel range TPH were detected at concentrations below the MTCA Method A cleanup level sporadically throughout the year in wells MW-2, MW-3, MW-8, and MW-9. Gasoline range TPH and BTEX concentrations detected in well MW-3 did not exceed the MTCA Method A target cleanup levels. TPH and BTEX analytical results are summarized in Table 2.

3.4.2 Arsenic

Total dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, and MW-11 during 2011. Low levels of arsenic were detected in wells MW-4, MW-5, MW-8, MW-10, and MW-12 at concentrations below the MTCA Method A target cleanup level. Arsenic analytical results are summarized in Table 3.

The average concentration of arsenic detected in each well has been determined using all data collected from each well over the duration of the study. During calculations all sample results returning a “non-detect” were entered as one half of the reporting limit. Wells MW-2, MW-6, MW-7 and MW-11 exhibit average arsenic concentrations ranging from 5.7 ug/L to 12.1 ug/L, which exceed the MTCA Method A cleanup level of 5.0 ug/L. All other wells exhibit average arsenic concentrations below the MTCA Method A cleanup level. Arsenic concentrations are provided in Table 3.

The arsenic detections could be the result of past uses of the property or they could be the result of natural causes. Groundwater from each of the impacted wells has low oxidation-reduction potential, indicating reducing conditions. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic mobilization in groundwater (Welch et. al, 2000).

3.4.3 Iron

Total dissolved iron samples were field filtered into preserved bottles and analyzed at the lab. Ferrous iron Fe(II) was measured in the field from filtered samples using a Hach

ferrous iron (Fe(II)) test kit. Ferric iron Fe(III) concentrations were estimated by subtracting ferrous iron concentrations measured in the field from the total dissolved iron results determined at the lab. Ferric and ferrous iron (iron oxides) concentrations were evaluated because iron is the most common arsenic bearing mineral (Welch, et al, 2000) and adsorbed arsenic may be released by the reduction of ferric iron (Fe(III)) to ferrous iron (Fe(II)) (Kirk, et al, 2004). Ferric and ferrous iron analytical results are summarized in Table 3.

Total dissolved iron was detected at elevated concentrations ranging from 590 to 45,000 ug/L in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, and MW-12 during 2011 (Table 3). Dissolved ferrous iron (Fe(II)) was detected at concentrations ranging from 400 to 8,000 ug/L. No dissolved iron or iron oxides were detected in wells MW-4 or MW-5 during 2011. The detection of dissolved ferrous iron (Fe(II)) in the wells containing high concentrations of total dissolved iron indicates that reduction of ferric iron (Fe(III)) to ferrous iron (Fe(II)) is occurring, potentially resulting in the dissolution of arsenic from the aquifer matrix.

3.4.4 Methane

Methane concentrations were measured because methane has been shown to be produced when arsenic levels are elevated (Kirk, et al, 2004). Methane was detected in wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, and MW-12 during each quarter of 2011 (Table 3). No methane was detected in wells MW-4, MW-5 during 2011. The highest concentrations were detected in wells MW-3, MW-8, and MW-9, wells not showing elevated arsenic. Those wells contained concentrations of diesel range TPH and the high concentrations of methane are most likely related to the anaerobic bio-degradation of hydrocarbons.

3.4.5 Phosphate

Phosphate concentrations were measured because phosphate has a similar geochemical behavior to arsenate (As(V)) and may de-sorb arsenic from iron oxide surfaces (USGS, 1999). Phosphate was not detected in any wells during 2011 (Table 3).

3.4.6 Sulfate/Sulfide

Sulfate and sulfide concentrations were measured because it has been shown that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004). Sulfate was detected in each monitoring well during 2011 (Table 3). It is interesting to note that in wells MW-1, MW-2, and MW-6 the sulfate concentration increased in the fourth quarter relative to the third quarter results, and the arsenic concentrations dropped significantly from the third quarter. Well MW-10 showed an increase in sulfate concentrations from the first quarter to the second quarter, and arsenic concentrations decreased relative to the first quarter result. This evidence appears to confirm the finding that sulfate concentrations and arsenic concentrations are inversely proportional (Kirk, et al, 2004). Sulfide was in all wells in 2011 in the third and/or fourth quarters, however sulfide was also detected in the equipment blank samples during those quarters, indicating possible lab error.

3.4.7 Total Organic Carbon

Total organic carbon was detected in every monitoring well during 2011 (Table 3). The highest concentrations were detected in well MW-3, MW-6, MW-7, and MW-11, wells showing elevated concentrations of arsenic. Iron can release arsenic to groundwater through iron-reduction involving either naturally occurring or anthropogenic organic carbon (Welch et al., 2000). Well MW-4 (clean well), MW-5 (background well) and MW-10 (clean well), had the lowest concentrations of TOC throughout the year.

3.4.8 Dissolved Metals

Groundwater samples were collected and analyzed for dissolved metals including mercury, cadmium, chromium, and lead. Monitoring wells MW-1 through MW-6 were sampled for those dissolved metals in 2007 and 2008. None of the metals were detected in those wells at concentrations exceeding the MTCA Method A target cleanup levels, therefore sampling for those metals in wells MW-1 through MW-6 ceased in 2009 (Table 4).

Groundwater samples were collected from monitoring wells MW-7, MW-8, and MW-9 and analyzed for dissolved mercury, cadmium, chromium, and lead in 2010. None of the metals were detected in those wells at concentrations exceeding the MTCA Method A target cleanup levels, therefore sampling for those metals in wells MW-7 through MW-9 ceased in 2011 (Table 4).

Groundwater samples were collected from monitoring wells MW-10, MW-11, and MW-12 and analyzed for dissolved mercury, cadmium, chromium, and lead in 2011. None of the metals were detected in those wells at concentrations exceeding the MTCA Method A target cleanup levels (Table 4).

3.4.9 Water Quality Indicator Parameters

The final water quality indicator parameter measurements for each well collected prior to sample collection are shown on Table 5. Review of the groundwater quality indicator parameters revealed the following observations:

- The data revealed that groundwater beneath the site is generally low in oxygen, indicating anaerobic conditions. Oxygen concentrations in the wells were generally less than 1 mg/L, with the exception of wells MW-4 and MW-5.
- The data indicate that groundwater beneath the site has a relatively neutral pH.
- The oxidation-reduction potential in wells MW-1 through MW-3, MW-6 through MW-9, and MW-11 through MW-12 was low, indicating reducing conditions exist in the groundwater at those locations. In general, there appears to be an inverse relationship between ORP values and arsenic concentrations. When ORP values are low, arsenic concentrations increase.
- Arsenic concentrations appear to be correlated with groundwater temperature and groundwater elevation. In general, when the groundwater elevations (relative to mean sea level) are lowest (September) the groundwater temperatures reach their annual maximum and arsenic concentrations peak.

4.0 DISCUSSION

Five years of groundwater monitoring have revealed that arsenic is the main constituent of concern in groundwater at the 210 McKenzie site. The MTCA Method A target cleanup level of 5 ug/L is based on Washington State background concentrations. Groundwater in the vicinity of wells MW-2, MW-6, MW-7 and MW-11 contains averaged levels of total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. However, the Maximum Contaminant Level (MCL) for drinking water established by the U.S. Environmental Protection Agency (EPA) is 10 ug/L. Washington State has adopted the Federal MCL for arsenic. Arsenic has been detected at an average study concentration of 12.1 ug/L in monitoring well MW-2. Monitoring well MW-2 is the only well at the site that yields an average arsenic concentration above the MCL.

The highest arsenic concentrations appear to be generally correlated with the lowest groundwater surface elevations and the highest groundwater temperatures. Those conditions tend to occur in the late fall which is corroborated in the data set generated to date. Samples collected in September generally have an increased concentration of arsenic compared to those collected in March. This direct proportionality to temperature agrees with experiments conducted to assess the adsorption and desorption of arsenic from soil particles (Tyrovola and Nikolaidis, 2009).

The wells in which high concentrations of arsenic have been detected tend to have greater negative oxidation/reduction potential (ORP) values. The data generally shows that when the ORP values are increasing (becoming more positive), arsenic values decrease and when ORP values are decreasing (becoming more negative), arsenic concentrations increase. Negative ORP indicates a reducing environment. Reducing conditions at near-neutral pH values can lead to the desorption of arsenic from mineral oxides and to the reductive dissolution of iron and manganese oxides, leading to arsenic release (Welch et. al, 2000).

The highest concentrations of iron are found in the wells located on the western side of the property where the subsurface investigation encountered buried waste debris (WES, 2007b). The detection of dissolved ferrous iron (Fe(II)) in the wells containing high concentrations of total dissolved iron indicates that reduction of ferric iron (Fe(III)) to ferrous

iron (Fe(II)) is occurring, potentially resulting in the dissolution of arsenic from the aquifer matrix.

Aspect Consulting of Seattle, Washington conducted an intensive groundwater investigation of the Lummi Island aquifer and concluded that wells with arsenic concentrations that exceed the EPA groundwater quality standard of 10 ug/L were associated with the Padden Member of the Chuckanut Formation (Aspect, 2006). The study found that wells drilled into unconsolidated materials which were located in close proximity to contacts with the Chuckanut Formation were found to have elevated concentrations of arsenic. The Padden Member of the Chuckanut Formation is the geologic unit located adjacent to (uphill) and reportedly beneath the subject property (Lapen, 2000).

Field observations and soil sample laboratory analytical data collected during the installation of monitoring wells MW-10, MW-11, and MW-12 indicate that the western boundary of the soil contamination area has been delineated. No evidence of soil contamination or buried waste debris was encountered in the borings. Groundwater samples collected from the new wells did not contain petroleum compounds or dissolved metals other than relatively low concentrations of dissolved arsenic.

The site is defined by the extent of contamination caused by the following releases: petroleum hydrocarbons, lead, cadmium, and cPAHs in soil, and petroleum hydrocarbons, lead, and arsenic in groundwater. The site investigation data collected over the previous five years have resulted in the complete characterization of the site.

5.0 CONCLUSIONS

The groundwater monitoring well network at 210 McKenzie Avenue in Bellingham, Washington was expanded by the addition of three groundwater monitoring wells in 2011. Quarterly groundwater monitoring was conducted in March, June, September, and December using a low-flow sample collection method (USEPA, 1998).

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds or BTEX constituents. During 2011 groundwater in the vicinity of wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, and MW-11 contained total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. Those wells yielded relatively consistent arsenic detections over the monitoring period. Wells MW-2, MW-6, MW-7 and MW-11 exhibit average arsenic concentrations ranging from 5.7 ug/L to 12.1 ug/L, which exceed the MTCA Method A cleanup level of 5.0 ug/L. All other wells exhibit average arsenic concentrations below the MTCA Method A cleanup level.

Field observations and soil sample laboratory analytical data collected during the installation of monitoring wells MW-10, MW-11, and MW-12 indicate that the western boundary of the soil contamination area has been delineated. No evidence of soil contamination or buried waste debris was encountered in the borings. Groundwater samples collected from the new wells did not contain petroleum compounds or dissolved metals other than relatively low concentrations of dissolved arsenic.

The site is defined by the extent of contamination caused by the following releases: petroleum hydrocarbons, lead, cadmium, and cPAHs in soil, and petroleum hydrocarbons, lead, and arsenic in groundwater. The site investigation data collected over the previous five years have resulted in the complete characterization of the site.

The groundwater monitoring system has been sampled on a Quarterly schedule for the past five years. The monitoring interval will be revised in 2012 and groundwater samples will be collected from the groundwater monitoring system on a Semi-Annual schedule.

The groundwater sample analyte list will be reduced in 2012. Based on a review of the laboratory analytical data collected to date, the twelve wells in the monitoring system will be sampled for dissolved arsenic. Wells MW-3, MW-8, and MW-9 will also be sampled for diesel range TPH. Wells MW-10, MW-11, and MW-12 will also be sampled for mercury, cadmium, chromium, lead, gasoline and diesel range TPH, and benzene, toluene, ethylbenzene, and xylenes in order to complete four quarters of monitoring for those analytes.

A Remedial Investigation (RI) Report and Feasibility Study (FS) will be prepared for the site. The RI/FS document will be prepared per the requirements outlined in the Model Toxics Control Act (MTCA) WAC 173-340-350. The document will consist of a concise summary of the investigations and remedial actions that have been completed at the site since 1994.

The RI portion of the document will include a discussion of the site regulatory status in the MTCA process. A complete summary of the property development and history will be prepared which will describe past site uses and facilities, current site uses and facilities, proposed or potential future site uses and facilities, zoning, transportation, utilities, and potential sources of site contamination. The RI will also include a discussion of the site setting, topography, geology, property drainage, and groundwater occurrence, movement etc. A discussion of Ecological receptors, wildlife, and other factors related to a Terrestrial Ecological Evaluation will be included. The RI portion of the document will include a conceptual model of the site which will illustrate the contaminant release/fate and transport/potential or actual receptors, and a discussion of data gaps if any exist. The FS portion of the document will follow the RI information and will develop and evaluate cleanup action alternatives as the basis for the selection of a cleanup action for the site.

6.0 LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by Whatcom Environmental Services is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. Whatcom Environmental Services prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

7.0 REFERENCES

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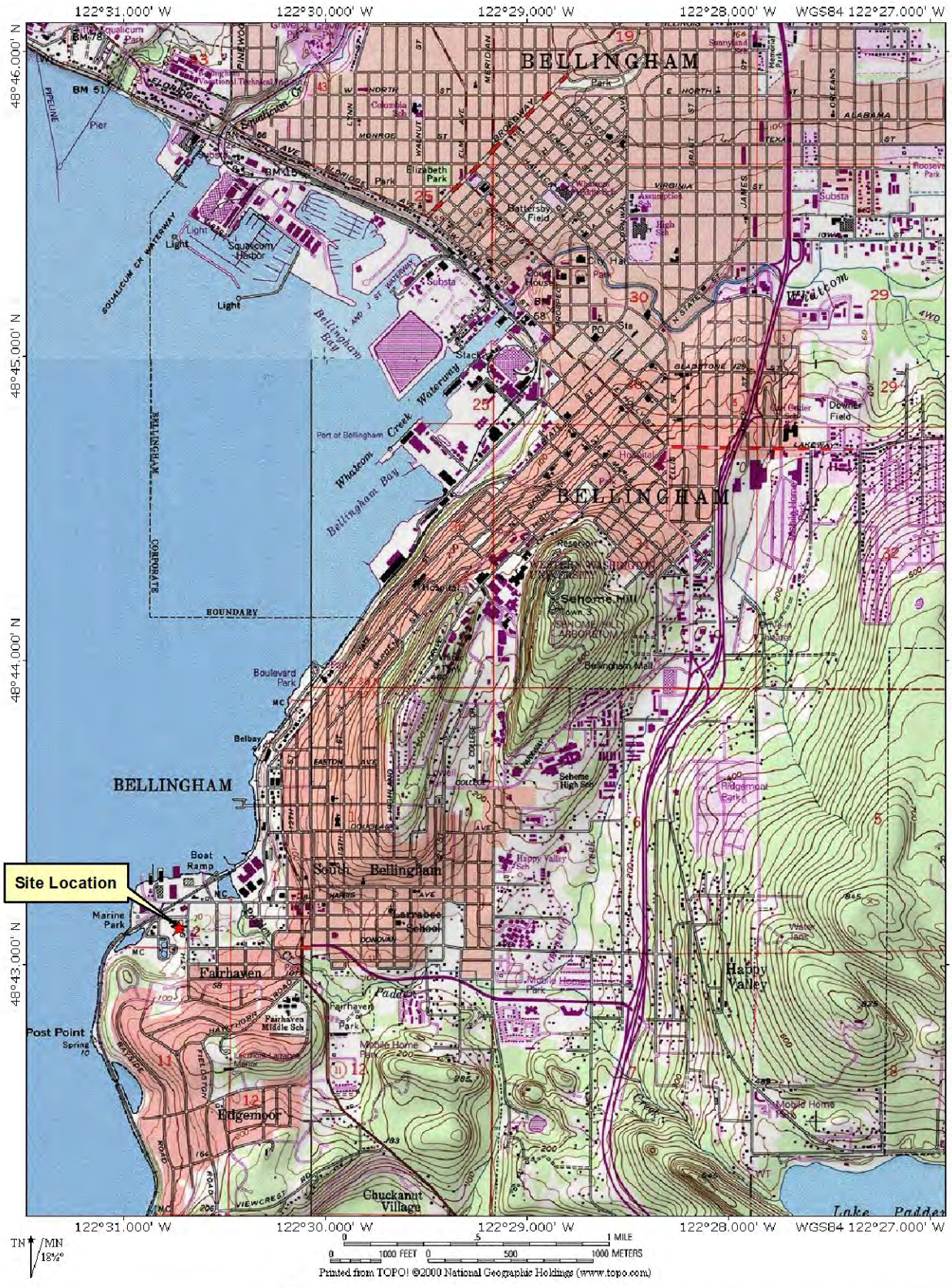

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

Site Location Map

210 McKenzie

9/25/08

Figure 1

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph

0 70 140 Feet
1 inch equals 70 feet

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Monitoring Well Location Map

210 McKenzie Remediation
11/2/11

Figure 2

Table 1. Soil Sample Analytical Data - Soil Borings B-10, B-11, and B-12

Sample ID	B-10 (14 ft) (MW-10)	B-11 (14 ft) (MW-11)	B-12 (14 ft) (MW-12)	MTCA Method A Cleanup Level
Date	06/07/11	06/07/11	06/07/11	
NW-TPH Methods (mg/kg)				
Gasoline Range (NWTPH-Gx)	ND(<3.0)	ND(<3.0)	ND(<3.0)	100/30*
Diesel Range (NWTPH-Dx)	ND(<25)	ND(<25)	ND(<25)	2,000
Oil Range (NWTPH-Dx)	ND(<50)	ND(<50)	ND(<50)	2,000
EPA 8021 Method (mg/kg)				
Benzene	ND(<0.03)	ND(<0.03)	ND(<0.03)	0.03
Toluene	ND(<0.05)	ND(<0.05)	ND(<0.05)	7
Ethylbenzene	ND(<0.05)	ND(<0.05)	ND(<0.05)	6
Xylenes	ND(<0.20)	ND(<0.20)	ND(<0.20)	9
Metals - EPA 6020 (mg/kg)				
Arsenic	8.5	2.2	3.1	20
Cadmium	ND(<1.3)	ND(<1.1)	ND(<1.2)	2
Chromium	49	49	50	2,000
Lead	5.6	2	13	250
Metals - EPA 7471 (mg/kg)				
Mercury	0.051	0.027	0.029	2

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

* - Cleanup level dependent on benzene concentration

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-1								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-2								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/04/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 Dup.	ND(<50)	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	200	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-3								
08/02/07	ND(<50)	150	ND(<250)	3	ND(<2)	3	ND	ND(<2)
12/06/07	64	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	ND(<50)	ND(<130)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08	77	ND(<130)	ND(<250)	5	ND(<2)	7	ND	ND(<2)
03/04/09	58	180	ND(<250)	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09	ND(<50)	150	ND(<250)	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 Dup.	ND(<50)	160	ND(<250)	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	76	170	ND(<250)	3.6	7.1	6.1	8.3	ND(<3)
11/18/09	ND(<50)	250	ND(<250)	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	190	ND(<250)	2.2	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	210	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	370	ND(<250)	1.9	ND(<1)	2.9	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	1.5	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	1.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	1.9	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	150	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	65	360	ND(<250)	1.1	ND(<1)	ND(<1)	3.7	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-4								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	6.4
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels: MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-5								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	160	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:									
MTCA Method-A (µg/L)		800/1,000*	500	500	5	1,000	700	1,000	20
MW-6									
08/03/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	Dup.	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08		ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-7								
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<250)	ND(<130)	ND(<250)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<15)	ND(<15)
09/08/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
3/22/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-8								
06/24/10	ND(<50)	240	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	250	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID		TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:									
MTCA Method-A (µg/L)		800/1,000*	500	500	5	1,000	700	1,000	20
MW-9									
06/24/10		ND(<50)	480	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10	Dup.	ND(<50)	**530**	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10		ND(<50)	370	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10		ND(<50)	320	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11		55	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11		ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	Dup.	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11		ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11		ND(<50)	270	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-10									
06/15/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-11									
06/15/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-12									
06/15/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11		ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 2. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
Equipment Blank								
08/02/07 (MW-8)	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08 (MW-8)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<50)	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11 (MW-15)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

* - Cleanup level dependent on BTEX concentrations

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	0	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	22,000	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	21,000	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	0	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3.0
03/18/10	1.9	21,000	4,400	16,600	1.5	ND(<0.29)	16	ND(<0.05)	4.1
06/23/10	3.6	25,000	4,200	20,800	0.68	ND(<0.29)	13	ND(<0.05)	4.5
09/09/10	**6.3**	32,000	4,000	28,000	2.8	ND(<0.29)	0.69	ND(<0.05)	5.5
12/02/10	3.5	27,000	4,400	22,600	0.62	ND(<0.29)	14	ND(<0.05)	4.0
03/23/11	**5.4**	28,000	5,000	23,000	0.9	ND(<0.29)	9	ND(<0.05)	4.0
06/16/11	**6.5**	26,000	5,500	20,500	0.74	ND(<0.29)	6	ND(<0.05)	4.6
09/22/11	**11**	40,000	6,600	33,400	3.40	ND(<0.29)	ND(<0.26)	0.1	6.4
12/07/11	**7**	27,000	4,600	22,400	1.00	ND(<0.29)	7.3	0.14	3.5
Average Concentration**	3.6								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	27,000	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	27,000	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	24,000	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	25,000	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	24,000	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
03/18/10	**7.5**	27,000	6,000	21,000	13	ND(<0.29)	1.6	ND(<0.05)	5.4
03/18/10 Dup.	**9.1**	26,000	6,000	20,000	4.4	ND(<0.29)	1.9	ND(<0.05)	5.3
06/23/10	**10**	24,000	4,400	19,600	3.9	ND(<0.29)	2.2	ND(<0.05)	5.5
09/09/10	**22**	22,000	4,400	17,600	6.9	ND(<0.29)	0.73	ND(<0.05)	5.4
12/02/10	**6.5**	28,000	7,000	21,000	6.1	ND(<0.29)	3.3	ND(<0.05)	6.1
03/23/11	**7.8**	27,000	5,000	22,000	3.4	ND(<0.29)	1.8	ND(<0.05)	4.9
06/16/11	**10**	24,000	6,000	18,000	5.3	ND(<0.29)	0.78	ND(<0.05)	5.2
09/22/11	**15**	25,000	6,800	18,200	5.2	ND(<0.29)	0.8	0.08	6.1
12/07/11	4.0	29,000	4,800	24,200	9.70	ND(<0.29)	12	0.2	6.0
Average Concentration**	**12.1**								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-3									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	37,000	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09	ND(<5)	35,000	7,600	27,400	16	ND(<0.4)	1.3	0.08	13
06/04/09 Dup.	ND(<5)	35,000	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09	1.7	40,000	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09	2.3	35,000	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
03/18/10	ND(<1.8)	34,000	5,400	28,600	7.8	ND(<0.29)	3.4	ND(<0.05)	11
06/23/10	2.3	37,000	5,400	31,600	13	ND(<0.29)	3.0	ND(<0.05)	14
09/09/10	**5.7**	35,000	5,000	30,000	8.8	8	27.0	ND(<0.05)	12
12/02/10	ND(<1.8)	25,000	5,600	19,400	10	ND(<0.29)	18.0	ND(<0.05)	10
03/23/11	3.6	39,000	7,000	32,000	10	ND(<0.29)	2	ND(<0.05)	13
06/16/11	3.9	35,000	5,600	29,400	11	ND(<0.29)	ND(<0.26)	ND(<0.05)	13
09/22/11	**8.4**	45,000	5,600	39,400	7	ND(<0.29)	16	0.14	18
12/07/11	2.3	32,000	4,200	27,800	14	ND(<0.29)	11	0.14	11
Average Concentration**	2.8								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	23	NA	3.4
06/04/09	ND(<5)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
03/18/10	ND(<1.8)	ND(<220)	0	ND	0.07	ND(<0.29)	20	ND(<0.05)	2.6
06/23/10	ND(<1.8)	ND(<220)	0	ND	0.38	ND(<0.29)	16	ND(<0.05)	2.5
09/09/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	8	26	ND(<0.05)	2.5
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	73	ND(<0.05)	3.2
03/23/11	2.5	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	12	ND(<0.05)	1.8
06/16/11	1.9	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.8	ND(<0.05)	2.0
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.9	ND(<0.05)	3.2
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.5	2.8	2.8
Average Concentration**	1.5								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	0	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
03/18/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.7	ND(<0.05)	2.1
06/23/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.6	ND(<0.05)	2.1
09/09/10	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.1	ND(<0.05)	2.0
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.0	ND(<0.05)	4.8
03/23/11	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.8	ND(<0.05)	2.2
06/16/11	3.0	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	2.3	ND(<0.05)	1.9
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.8	0.14	2.5
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.2	2.8	2.8
Average Concentration**	1.7								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	14,000	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	16,000	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	21,000	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
03/18/10	**6.0**	12,000	10,000	2,000	3.2	ND(<0.29)	5.2	ND(<0.05)	8
06/24/10	**7.1**	19,000	4,000	15,000	4.9	ND(<0.29)	6.9	ND(<0.05)	10
09/09/10	**15**	26,000	4,600	21,400	6.7	ND(<0.29)	2.6	ND(<0.05)	11
12/02/10	**6.5**	18,000	5,000	13,000	7.1	ND(<0.29)	6.9	ND(<0.05)	10
03/23/11	**8.0**	16,000	5,000	11,000	2.4	ND(<0.29)	2.4	ND(<0.05)	9
06/16/11	**8.8**	24,000	5,200	18,800	7.8	ND(<0.29)	4.6	ND(<0.05)	10
06/16/11 Dup.	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/22/11	**15**	27,000	5,000	22,000	1.8	ND(<0.29)	ND(<0.26)	0.1	11
12/08/11	**6.8**	14,000	3,800	10,200	1.5	ND(<0.29)	17	0.3	7.5
Average Concentration**	**8.0**								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-7									
06/24/10	**6.6**	25,000	3,400	21,600	3.7	ND(<0.29)	1.2	ND(<0.05)	11.0
09/08/10	**5.3**	29,000	5,000	24,000	3.7	ND(<0.29)	1.0	ND(<0.05)	11.0
09/08/10 Dup.	4.9	28,000	NA	NA	4.0	ND(<0.29)	0.28	ND(<0.05)	12.0
12/01/10	**7.6**	33,000	6,400	26,600	5.2	ND(<0.29)	0.67	ND(<0.05)	11.0
03/22/11	**7.1**	28,000	5,400	22,600	6.2	ND(<0.29)	1.4	ND(<0.05)	10.0
03/22/11 Dup.	**6.8**	27,000	5,400	21,600	2.9	ND(<0.29)	0.43	ND(<0.05)	10.0
06/15/11	**7.6**	23,000	5,000	18,000	5.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	10.0
09/21/11	**8.7**	35,000	5,800	29,200	4.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.9
12/08/11	**8.5**	35,000	5,500	29,500	2.7	ND(<0.29)	3	0.3	9.4
Average Concentration**	**7.0**								
MW-8									
06/24/10	2.7	34,000	5,400	28,600	4.7	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.9
09/08/10	2.5	33,000	3,800	29,200	9.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.7
12/01/10	2.5	29,000	5,400	23,600	5.9	ND(<0.29)	2.3	ND(<0.05)	8.5
12/01/10 Dup.	2.5	29,000	NA	NA	3.4	ND(<0.29)	2.0	ND(<0.05)	8.6
03/22/11	2.7	18,000	5,600	12,400	5.3	ND(<0.29)	0.75	ND(<0.05)	6.8
06/15/11	3.3	31,000	8,000	23,000	8.3	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.9
09/21/11	2.0	30,000	5,700	24,300	10.0	ND(<0.29)	0.27	0.14	7.5
12/06/11	ND(<1.8)	12,000	3,800	8,200	4.6	ND(<0.29)	12	0.16	8.3
Average Concentration**	2.4								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-9									
06/24/10	3.8	28,000	4,000	24,000	8.5	ND(<0.29)	1.5	ND(<0.05)	7.1
06/24/10 Dup.	3.7	28,000	NA	NA	13.0	ND(<0.29)	1.2	ND(<0.05)	7.1
9/8/2010	2.8	25,000	3,000	22,000	15.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.5
12/1/2010	3.0	30,000	4,000	26,000	8.8	ND(<0.29)	0.48	ND(<0.05)	6.5
03/22/11	**5.5**	36,000	4,400	31,600	4.5	ND(<0.29)	0.82	ND(<0.05)	5.3
06/15/11	**6.2**	32,000	5,500	26,500	11.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.1
06/15/11 Dup.	**5.9**	32,000	NA	NA	13.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.3
09/21/11	3.0	26,000	4,800	21,200	7.7	ND(<0.29)	ND(<0.26)	0.10	7.1
12/06/11	3.8	38,000	5,500	32,500	12	ND(<0.29)	0.46	0.16	6.9
Average Concentration**	4.2								
MW-10									
06/15/11	2.1	590	700	0	0.3	ND(<0.29)	2.0	ND(<0.05)	3.6
09/21/11	ND(<1.8)	2,300	2,400	0	0.8	ND(<0.29)	15.0	0.14	3.4
12/06/11	ND(<1.8)	1,600	1,800	0	1.6	ND(<0.29)	45	0.14	4.1
12/06/11 Dup.	ND(<1.8)	1,300	NA	NA	4.6	ND(<0.29)	40	0.12	4.2
Average Concentration**	1.2								

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-11									
06/15/11	4.3	13,000	5,200	7,800	3.8	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
09/21/11	**7.5**	39,000	6,500	32,500	2.9	ND(<0.29)	1.7	ND(<0.05)	12.0
12/06/11	**5.2**	26,000	5,400	20,600	4.6	ND(<0.29)	0.72	0.22	8.3
Average Concentration**	**5.7**								
MW-12									
06/15/11	3.4	3,700	400	3,300	2.8	ND(<0.29)	3.7	ND(<0.05)	10.0
09/21/11	ND(<1.8)	5,400	3,600	1,800	3.2	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.5
9/21/11 Dup.	ND(<1.8)	5,500	3,600	1,900	2.9	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
12/06/11	1.8	1,600	1,900	0	3.4	ND(<0.29)	4.6	0.14	7.6
Average Concentration**	1.8								
Equipment Blank									
08/02/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<5)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09 (MW-8)	ND(<5)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)

Table 3. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
		EPA 200.8 (in 2010)							
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
03/18/10 (MW-8)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.81	ND(<0.05)	2.2
06/24/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	0.26	ND(<0.29)	ND(<0.26)	ND(<0.05)	0.27
09/08/10 (MW-11)	ND(<1.8)	240	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
12/01/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
03/22/11 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.71	ND(<0.05)	ND(<0.25)
06/16/11 (MW-15)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
09/22/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	0.16	ND(<0.25)
12/07/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	1.1	0.12	ND(<0.25)

* Filtered field sample was used for analysis

** Average based on all sampling events presented in table; For calculations non-detect equal to 1/2 of detection limit

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15
MW-1				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-2				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-3				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	4
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-4				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-5				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury EPA-245.1 (Dissolved) µg/L	Cadmium EPA-200.8 (Dissolved) µg/L	Chromium EPA-200.8 (Dissolved) µg/L	Lead EPA-200.8 (Dissolved) µg/L
units:				
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15
MW-6				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-7				
06/24/10	ND(<0.20)	1.7	2.7	1.9
09/08/10	ND(<0.20)	ND(<0.44)	2.4	6.5
09/08/10 Dup.	ND(<0.20)	ND(<0.44)	2.3	8.2
12/01/10	ND(<0.20)	ND(<0.44)	1.2	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	2.1	ND(<0.62)
03/22/11 Dup.	ND(<0.20)	ND(<0.44)	2.0	0.69
MW-8				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	2.0
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/01/10 Dup.	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.95	0.74
MW-9				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	4.2
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.82	0.64
MW-10				
06/15/11	ND(<0.20)	ND(<0.27)	1.1	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	0.83	ND(<0.62)
MW-11				
06/15/11	ND(<0.20)	ND(<0.27)	4.8	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	2.4	ND(<0.62)

Table 4. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15
MW-12				
06/15/11	ND(<0.20)	ND(<0.27)	5.5	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	5.2	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	4.3	ND(<0.62)
Equipment Blank				
08/02/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/15/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/08/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	7.3
12/01/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 5. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	08/02/07	13.86	16.63	0.575	0.24	6.87	-125.9
	12/06/07	16.16	9.2	0.475	0.00	6.90	132
	03/12/08	15.29	9.0	0.401	1.71	7.10	136
	06/16/08	15.36	13.0	0.599	*	6.70	28
	09/15/08	14.13	16.1	0.737	*	7.07	-84
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.45	8.66	0.497	4.03	6.62	69
	03/04/09**		-	-	0.40	-	-
	06/04/09	15.18	13.33	0.634	1.47	6.27	-39
	09/02/09	13.38	16.98	0.999	1.32	6.55	-113
	11/18/09	17.34	12.04	ME	0.00	7.13	33
	03/18/10	15.67	9.08	0.667	0.00	8.16	-62
	06/23/10	15.61	13.85	ME	0.00	8.22	-98
	09/09/10	13.81	15.84	0.793	1.12	7.73	-122
	12/02/10	16.37	11.58	ME	0.40	8.58	-70
	03/23/11	16.11	ME	0.824	0.00	6.31	-85
	06/16/11	14.95	12.68	0.612	0.03	6.96	-118.1
	09/22/11	13.36	16.07	0.669	0.03	7.15	-166.9
	12/07/11	14.78	11.34	0.547	0.06	6.86	-89
MW-2	08/02/07	14.14	15.88	0.609	0.13	6.67	-107.2
	12/06/07	16.13	10.8	0.748	0.00	7.00	-115
	03/12/08	15.27	9.1	0.725	0.00	7.40	-166
	06/16/08	15.45	12.4	0.713	*	6.90	-160
	09/15/08	14.32	16.0	0.762	*	6.96	-129
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.53	8.83	0.758	3.95	6.94	-132
	03/04/09**		-	-	0.20	-	-
	06/04/09	15.29	14.62	0.727	1.07	6.47	-123
	09/02/09	13.53	17.55	0.999	1.52	6.49	-121
	11/18/09	17.41	11.95	ME	0.00	8.50	-113
	03/18/10	15.75	10.10	0.836	0.00	8.28	-117
	06/23/10	15.71	14.82	ME	0.00	8.42	-141
	09/09/10	14.06	16.95	0.749	1.10	7.53	-114
	12/02/10	16.41	11.88	ME	0.38	8.71	-84
	03/23/11	16.18	ME	0.96	0.00	6.39	-102
	06/16/11	15.09	12.87	0.635	0.02	7.03	-135.8
	09/22/11	13.50	15.92	0.656	0.04	7.00	-134.7
	12/07/11	14.90	11.63	0.707	0.05	7.09	-136.8

Table 5. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-3	08/02/07	14.12	16.48	1.028	0.16	6.48	-84.2
	12/06/07	15.50	9.7	0.772	0.00	6.70	-87
	03/12/08	15.25	9.5	1.050	0.00	7.20	-154
	06/16/08	15.19	13.2	0.822	*	6.80	-138
	09/15/08	14.23	17.5	1.060	*	6.84	-122
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.16	9.03	0.866	4.06	6.72	-112
	03/04/09**		-	-	0.10	-	-
	06/04/09	15.11	14.22	0.778	0.80	6.32	-104
	09/02/09	13.39	16.97	0.930	1.23	6.34	-102
	11/18/09	17.25	12.34	ME	0.00	8.06	-88
	03/18/10	15.60	10.29	0.722	0.00	8.08	-96
	06/23/10	15.40	14.74	ME	0.00	8.05	-113
	09/09/10	13.95	16.92	0.95	1.37	7.15	-79
	12/02/10	16.10	11.39	ME	0.57	8.19	-19
	03/23/11	15.79	ME	0.99	0.00	6.28	-86
	06/16/11	14.72	13.08	0.749	0.02	6.85	-121.9
	09/22/11	13.45	16.3	0.888	0.07	6.76	-116.9
	12/07/11	14.72	11.34	0.685	0.03	6.72	-96.3
MW-4	08/03/07	14.13	16.98	0.337	2.08	6.46	127.3
	12/06/07	16.25	13.0	0.643	0.00	6.80	100
	03/12/08	15.36	10.3	0.609	0.05	7.10	85
	06/16/08	15.48	14.8	0.540	*	6.80	61
	09/15/08	14.35	18.2	0.592	*	6.84	112
	10/29/08**		-	-	0.20	-	-
	03/04/09	15.61	10.07	0.606	5.03	6.77	105
	03/04/09**		-	-	1.80	-	-
	06/04/09	15.34	15.44	0.507	1.49	6.31	106
	09/02/09	13.53	17.94	0.999	1.27	6.36	119
	11/18/09	17.44	13.34	ME	0.28	6.60	118
	03/18/10	15.80	10.70	0.513	0.00	7.70	62
	06/23/10	15.74	15.81	ME	0.17	7.66	37
	09/09/10	14.26	18.03	0.655	2.02	6.97	24
	12/02/10	16.46	12.80	3.66	1.06	7.36	83
	03/23/11	16.22	ME	0.616	3.18	6.21	-52
	06/16/11	15.14	14.04	0.334	0.10	6.95	46.6
	09/22/11	13.45	17.37	0.314	0.08	6.92	38.1
	12/07/11	14.96	12.74	0.468	0.72	6.94	61

Table 5. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-5	08/03/07	18.83	17.74	0.343	4.85	7.54	84.2
	12/06/07	23.60	10.2	0.412	6.87	7.80	138
	03/12/08	23.16	9.3	0.207	4.22	8.00	79
	06/16/08	22.09	14.5	0.186	*	7.00	76
	09/15/08	18.84	18.3	0.349	*	7.48	111
	10/29/08**		-	-	3.80	-	-
	03/04/09	23.39	8.48	0.213	6.37	7.05	222
	03/04/09**		-	-	4.30	-	-
	06/04/09	21.65	14.86	0.185	1.65	6.33	14
	09/02/09	17.59	17.98	0.503	1.30	6.59	49
	11/18/09	24.64	12.30	0.241	0.04	7.22	29
	03/18/10	23.36	9.87	0.197	0.00	7.49	151
	06/23/10	22.24	16.32	0.164	0.99	7.51	146
	09/09/10	18.20	18.40	0.316	1.03	7.08	51
	12/02/10	24.44	11.02	0.211	4.71	6.74	134
	03/23/11	23.80	ME	0.265	3.53	6.27	-13
	06/16/11	21.26	13.59	0.153	0.12	6.69	10.1
	09/22/11	17.68	17.19	0.275	0.12	7.22	36.2
	12/07/11	22.41	10.77	0.139	1.00	6.81	44.9
MW-6	08/03/07	15.71	16.52	0.436	0.19	6.23	16.5
	12/06/07	18.86	10.3	0.394	0.00	6.60	-50
	03/12/08	18.43	9.0	0.413	0.00	6.90	-107
	06/16/08	18.16	13.7	0.426	*	6.30	-85
	09/15/08	15.52	16.5	0.492	*	6.48	-84
	10/29/08**		-	-	0.10	-	-
	03/04/09	19.15	8.25	0.333	6.39	6.53	-73
	03/04/09**		-	-	0.40	-	-
	06/04/09	17.58	13.58	0.358	0.87	5.98	-61
	09/02/09	14.80	16.32	0.710	0.98	6.18	-78
	11/18/09	19.39	12.76	0.346	0.00	7.24	-8
	03/18/10	19.28	9.37	0.227	0.00	7.80	-34
	06/24/10	18.04	14.99	0.395	0.34	7.74	-52
	09/09/10	16.37	16.93	0.502	1.44	6.88	-45
	12/02/10	20.22	10.56	ME	0.28	8.10	-3
	03/23/11	19.90	ME	0.324	0.00	6.36	-28
	06/16/11	17.43	12.38	0.331	0.06	6.49	-90
	09/22/11	14.76	16.04	0.403	0.05	6.57	-89
	12/08/11	17.64	10.94	0.325	0.06	6.34	-5

Table 5. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-7	06/24/10	9.40	15.73	ME	0.79	7.96	-90
	09/08/10	9.46	16.83	0.632	1.24	7.24	-98
	12/01/10	10.59	14.33	1.71	0.62	7.03	-87
	03/22/11	10.66	ME	0.68	0.00	6.30	-105
	06/15/11	10.06	12.47	0.401	0.03	6.90	-160.3
	09/21/11	9.86	16.75	0.61	0.04	6.78	-137.2
	12/08/11	10.06	12.99	0.638	0.02	6.81	-122.3
MW-8	06/24/10	15.65	15.15	0.874	0.16	8.58	-195
	09/08/10	14.06	17.63	0.505	0.57	7.80	-174
	12/01/10	16.37	12.41	3.18	0.56	7.96	-155
	03/22/11	16.11	ME	0.52	0.00	6.63	-146
	06/15/11	15.02	13.03	0.409	0.02	7.57	-211.7
	09/21/11	13.55	18.17	0.434	0.02	7.45	-204.2
	12/06/11	14.84	12.09	0.589	0.02	7.03	-87.4
MW-9	06/24/10	15.66	14.18	0.584	0.00	8.63	-179
	09/08/10	14.04	15.95	0.354	0.02	8.07	-185
	12/01/10	16.35	12.52	ME	0.62	8.87	-145
	03/22/11	16.10	ME	0.553	0.00	6.55	-144
	06/15/11	15.01	12.48	0.406	0.02	7.30	-168.4
	09/21/11	13.49	16.3	0.317	0.02	7.41	-201.6
	12/06/11	14.83	11.72	0.416	0.01	7.35	-179.3
MW-10	06/15/11	10.91	12.96	0.221	0.47	6.54	35.7
	09/21/11	9.59	16.41	0.227	0.05	6.43	29
	12/06/11	11.25	12.02	0.241	0.05	6.12	56.7
MW-11	06/15/11	9.82	13.27	0.327	0.01	6.83	-116.6
	09/21/11	9.60	17.67	0.734	0.08	6.70	-164.6
	12/06/11	9.89	12.99	0.56	0.03	6.86	-125.7
MW-12	06/15/11	9.09	13.81	0.472	0.02	6.97	-96.5
	09/21/11	8.76	17.9	0.42	0.06	6.91	-116.1
	12/06/11	8.99	13.08	0.477	0.03	7.12	-70.9

ME - Meter Error

* DO probe membrane malfunctioned during sample collection event

** DO readings were verified using a Hach HQ10 optical type DO probe.

APPENDIX A

Soil Borelogs and Well Installation Diagrams

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-10**
Location: Northwest of MW-7
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~13 ft
Total Depth: 15.5 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil				
0.8' - 3.5' Very gravelly sandy silt, brown, hard, moist - Some brick and metal railroad debris at 2 feet				
3.5' - 5' Fine sandy silt with minor gravel, brown, firm, moist				
5' - 6.5' Sandy silt, minor gravel, brown, loose, moist - Charcoal/organics at 6 feet	5-4-5	0.0	NS	
7.5' - 9' Poor recovery, pounded rock. Clayey silt with sand, minor gravel, brown, firm, moist	7-7-7	0.0	NS	
12.5' - 14 Silty clay, gray with orange mottling, plastic, slightly wet	3-3-4	0.0	NS	14'

WHATCOM ENVIRONMENTAL SERVICES INC.

www.whatcomenvironmental.com

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-11**
Location: West of B-8
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil/organic				
0.8' - 5' Cobbley and gravelly sandy clayey silt, brown, hard, moist				
- Gray material at 3 feet, associated with old soil horizon		0.0	SS	
- Red brick at 5 feet				
5' - 6.5' Gravelly sandy silt, dark gray, loose, moist	2-3-3	0.0	VSS	
7.5' - 8' Gravelly sandy silt, dark gray, loose, moist	3-4-4	0.0	VSS	
8' - 9' Sandy silt with gravel, gray, firm, moist		0.0	VSS	
12.5' - 14' Gravelly sand, gray, loose, wet	11-8-4	0.0	VSS	14'

WHATCOM ENVIRONMENTAL SERVICES INC.

www.whatcomenvironmental.com

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-12**
Location: Northeast of Admin. Building
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

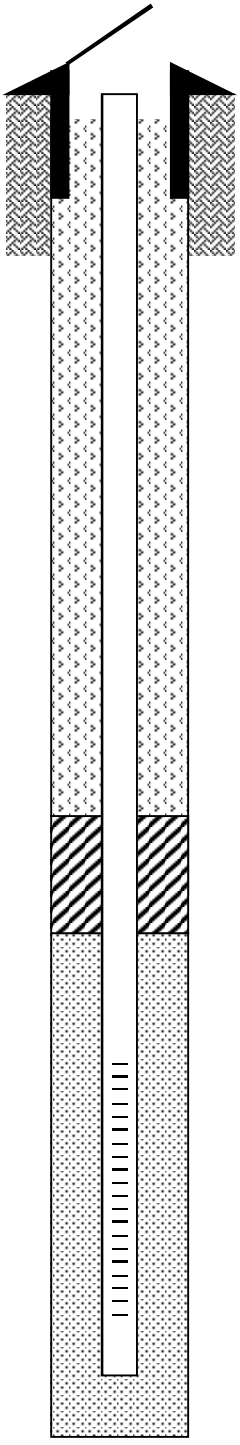
Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.3' Asphalt				
0.3' - 0.7' Crushed rock/gravel				
0.7' - 5' Cobbley, gravelly sandy silt with clay (diamicton), brown, hard, moist.				
5.5' - 7.0' Very gravelly sandy silt, gray, hard, moist.	24-25-18	0.0	VSS	
7.5' - 9' Very gravelly sandy silt, gray, firm, moist to slightly wet.	4-8-14	0.0	VSS	
12.5' - 14 Very gravelly sandy silt, gray, firm, loose, wet.	1-1-2	0.0	VSS	14'

WHATCOM ENVIRONMENTAL SERVICES INC.

www.whatcomenvironmental.com

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

3.0'

5'2"

15'2"

15'6"

15'6"

Not to Scale

Elevations (feet): Top of Casing: 19.41'
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Coordinate System:

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
6/15/2011	8.50	10.91	6.54	0.221
9/21/2011	9.82	9.59	6.43	0.227
12/6/2011	8.16	11.25	6.12	0.241

Comments:

Project: 210 McKenzie Ave. Add Wells

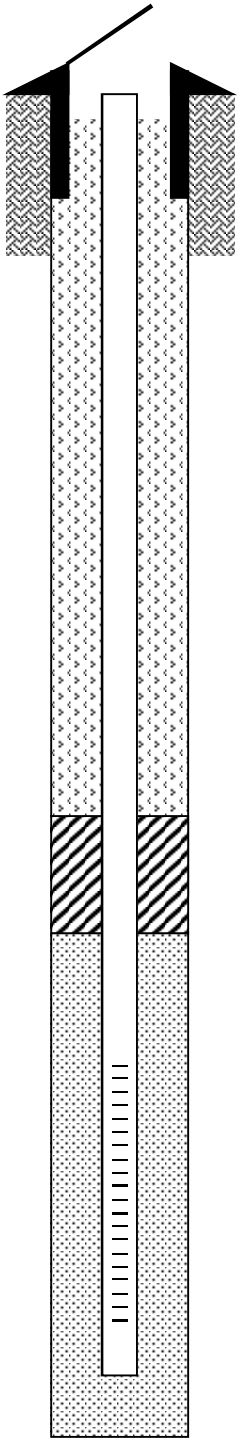
Location: NW corner of Property

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 10 BCB-744

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4'7"

14'11"

14'11"

14'11"

Not to Scale

Elevations (feet): Top of Casing: 19.18'
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Coordinate System:

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
6/15/2011	9.36	9.82	6.83	0.327
9/21/2011	9.58	9.60	6.70	0.734
12/6/2011	9.29	9.89	6.86	0.560

Comments: Heaving sands set well higher than 15'

Project: 210 McKenzie Ave. Add Wells

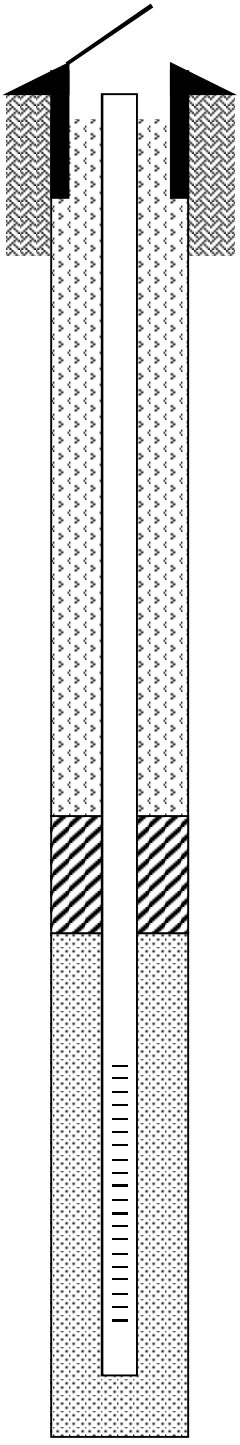
Location: West of MW-8

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 11 BCB-745

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4'8"

14'8"

15'

15'

Not to Scale

Elevations (feet): Top of Casing: 17.49'
Mean Sea Level (MSL) Ground Elevation:

Coordinates:

Coordinate System:

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
6/15/2011	8.40	9.09	6.97	0.472
9/21/2011	8.73	8.76	6.91	0.420
12/6/2011	8.50	8.99	7.12	0.477

Comments:

Project: 210 McKenzie Ave. Add Wells

Location: Handicap parking spot by admin. building

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW - 12 BCB-746

210 McKenzie Avenue

APPENDIX B

Soil Sample Laboratory Analytical Data

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/16/2011
		ALS JOB#:	1106043
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	6/8/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/7/2011 12:00
CLIENT SAMPLE ID	B-10 14ft	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	06/09/2011	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	06/09/2011	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	06/09/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	06/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	06/09/2011	EBS
Mercury	EPA-7471	**0.051**	0.020	1	MG/KG	06/15/2011	RAL
Arsenic	EPA-6020	**8.5**	0.76	5	MG/KG	06/15/2011	RAL
Cadmium	EPA-6020	U	1.3	5	MG/KG	06/15/2011	RAL
Chromium	EPA-6020	**49**	0.74	5	MG/KG	06/15/2011	RAL
Lead	EPA-6020	**5.6**	0.73	5	MG/KG	06/15/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.1**	06/09/2011	DLC
TFT	EPA-8021	**90.6**	06/09/2011	DLC
C25	NWTPH-DX	**110**	06/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Laboratory Group A Campbell Brothers Limited Company

Environmental www.alsglobal.com
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/16/2011
		ALS JOB#:	1106043
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	6/8/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/7/2011 10:00
CLIENT SAMPLE ID	B-11 14ft	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	06/09/2011	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	06/09/2011	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	06/09/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	06/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	06/09/2011	EBS
Mercury	EPA-7471	**0.027**	0.020	1	MG/KG	06/15/2011	RAL
Arsenic	EPA-6020	**2.2**	0.69	5	MG/KG	06/15/2011	RAL
Cadmium	EPA-6020	U	1.1	5	MG/KG	06/15/2011	RAL
Chromium	EPA-6020	**49**	0.67	5	MG/KG	06/15/2011	RAL
Lead	EPA-6020	**2.0**	0.66	5	MG/KG	06/15/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**76.6**	06/09/2011	DLC
TFT	EPA-8021	**81.8**	06/09/2011	DLC
C25	NWTPH-DX	**102**	06/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/16/2011
		ALS JOB#:	1106043
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	6/8/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/7/2011 08:45
CLIENT SAMPLE ID	B-12 14ft	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	06/09/2011	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	06/09/2011	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	06/09/2011	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	06/09/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	06/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	06/09/2011	EBS
Mercury	EPA-7471	**0.029**	0.020	1	MG/KG	06/15/2011	RAL
Arsenic	EPA-6020	**3.1**	0.70	5	MG/KG	06/15/2011	RAL
Cadmium	EPA-6020	U	1.2	5	MG/KG	06/15/2011	RAL
Chromium	EPA-6020	**50**	0.69	5	MG/KG	06/15/2011	RAL
Lead	EPA-6020	**13**	0.68	5	MG/KG	06/15/2011	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**85.6**	06/09/2011	DLC
TFT	EPA-8021	**96.2**	06/09/2011	DLC
C25	NWTPH-DX	**99.0**	06/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/16/2011
		ALS SDG#:	1106043
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MBG-060311S - Batch 1827 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	06/03/2011	DLC

MB-060311S - Batch 1827 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	06/03/2011	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	06/03/2011	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	06/03/2011	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	06/03/2011	DLC

MB-060711S - Batch 1834 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	06/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	06/07/2011	EBS

MBLK-6152011 - Batch R73846 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	0.020	1	MG/KG	06/15/2011	RAL

MB-061011S - Batch 1852 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	0.12	1	MG/KG	06/15/2011	RAL
Cadmium	EPA-6020	U	0.20	1	MG/KG	06/15/2011	RAL
Chromium	EPA-6020	U	0.12	1	MG/KG	06/15/2011	RAL
Lead	EPA-6020	U	0.12	1	MG/KG	06/15/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/16/2011
		ALS SDG#:	1106043
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1827 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**73.4**			06/03/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**72.2**	**2**		06/03/2011	DLC

ALS Test Batch ID: 1827 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	**110**			06/03/2011	DLC
Benzene - BSD	EPA-8021	**108**	**2**		06/03/2011	DLC
Toluene - BS	EPA-8021	**109**			06/03/2011	DLC
Toluene - BSD	EPA-8021	**107**	**2**		06/03/2011	DLC
Ethylbenzene - BS	EPA-8021	**104**			06/03/2011	DLC
Ethylbenzene - BSD	EPA-8021	**101**	**3**		06/03/2011	DLC
Xylenes - BS	EPA-8021	**110**			06/03/2011	DLC
Xylenes - BSD	EPA-8021	**108**	**2**		06/03/2011	DLC

ALS Test Batch ID: 1834 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**95.4**			06/07/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**95.8**	**0**		06/07/2011	EBS

ALS Test Batch ID: R73846 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**94.0**			06/15/2011	RAL
Mercury - BSD	EPA-7471	**94.0**	**0**		06/15/2011	RAL

ALS Test Batch ID: 1852 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**94.6**			06/15/2011	RAL
Arsenic - BSD	EPA-6020	**94.0**	**1**		06/15/2011	RAL
Cadmium - BS	EPA-6020	**90.2**			06/15/2011	RAL
Cadmium - BSD	EPA-6020	**95.6**	**6**		06/15/2011	RAL
Chromium - BS	EPA-6020	**96.8**			06/15/2011	RAL
Chromium - BSD	EPA-6020	**95.8**	**1**		06/15/2011	RAL
Lead - BS	EPA-6020	**91.9**			06/15/2011	RAL
Lead - BSD	EPA-6020	**96.5**	**5**		06/15/2011	RAL

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CERTIFICATE OF ANALYSIS

APPROVED BY

Laboratory Director

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(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1106043

Date 6-7-11 Page 1 Of 1

PROJECT ID: 210 McKENZIE
REPORT TO COMPANY: WHATCOM ENVIRONMENTAL
PROJECT MANAGER: HAROLD CASHMAN
ADDRESS: 228 E. CHAMPION ST. #101
BELLINGHAM, WA 98225
PHONE: (360) 752-9571 FAX: (360) 752-0373
P.O. NUMBER: E-MAIL: HJCASHMAN@WHATCOMENVIRONMENTAL.COM
INVOICE TO COMPANY: SAME AS ABOVE
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals MTCA-5 X RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. B-10 14ft	6-7-11	12:00	Soil	1		X	X	X									X					
2. B-11 14ft	6-7-11	10:00	Soil	2		X	X	X									X					
3. B-12 14ft	6-7-11	8:45	Soil	3		X	X	X									X					
4.																						
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

LABORATORY COPY

SPECIAL INSTRUCTIONS: SAMPLES COLLECTED VIA METHOD 5035A

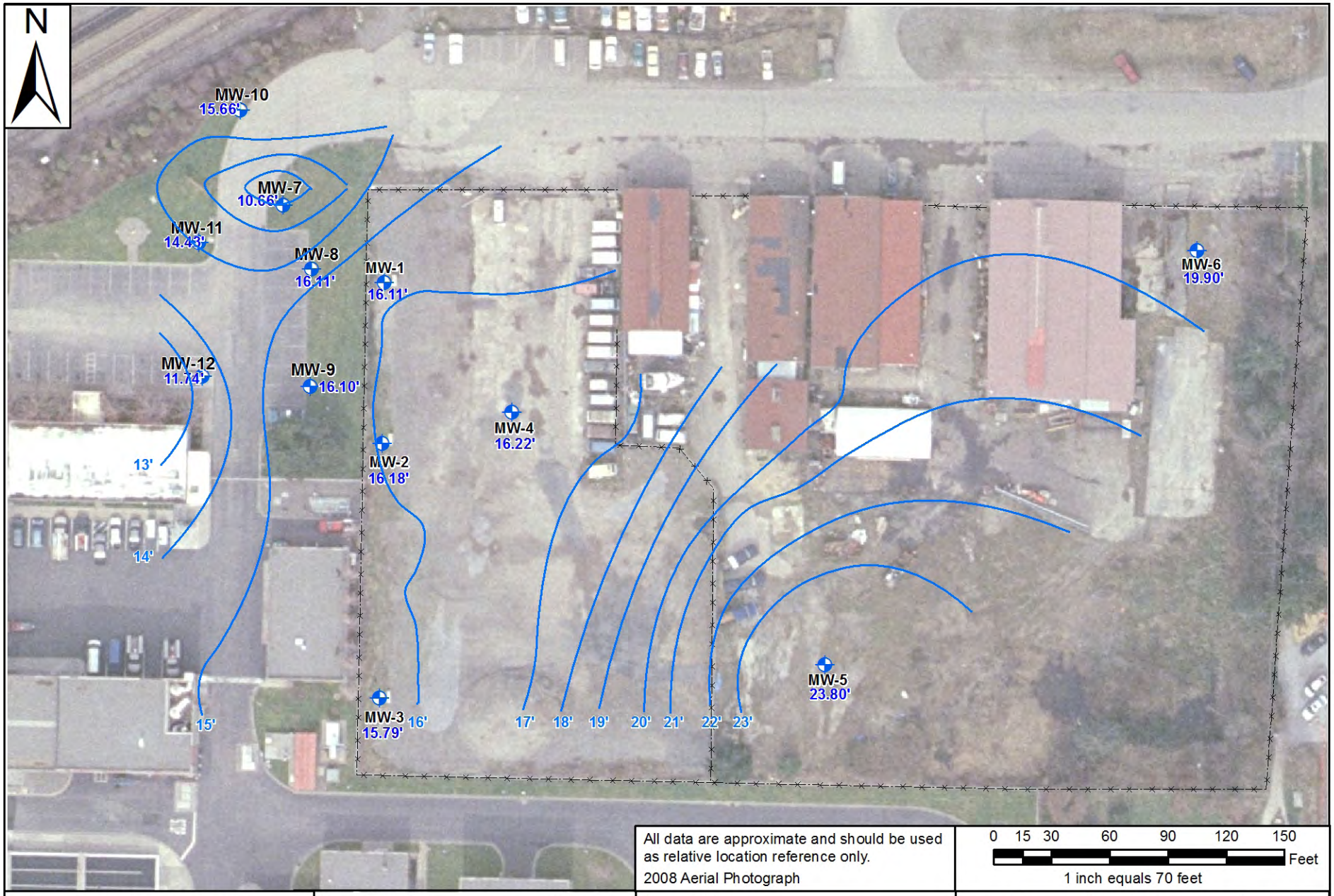
SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: Dan Hemphy, WES, 6-7-11, 1:45
Received By:
2. Relinquished By:
Received By: Shawn Robinson AL 6/8/11 2:15

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

APPENDIX C

Groundwater Elevation Contour Maps



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Active GW Monitoring Wells

Fence

Groundwater Contour

00' Groundwater Contour Elevation

00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

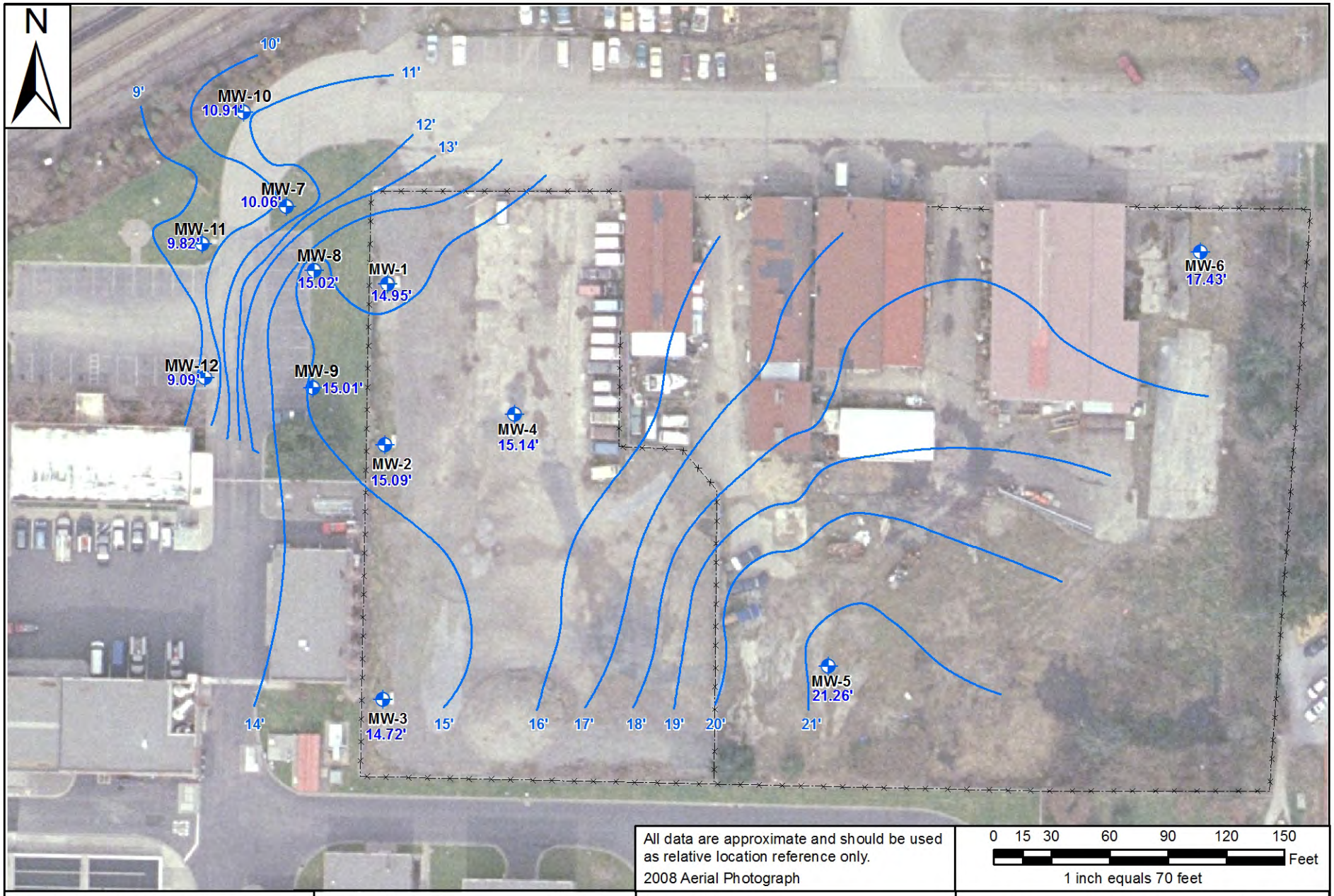
whatcom ENVIRONMENTAL

Groundwater Elevations March 23, 2011

210 McKenzie Remediation

11/1/11

Figure C1



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Active GW Monitoring Wells

Fence

Groundwater Contour

00' Groundwater Contour Elevation

00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

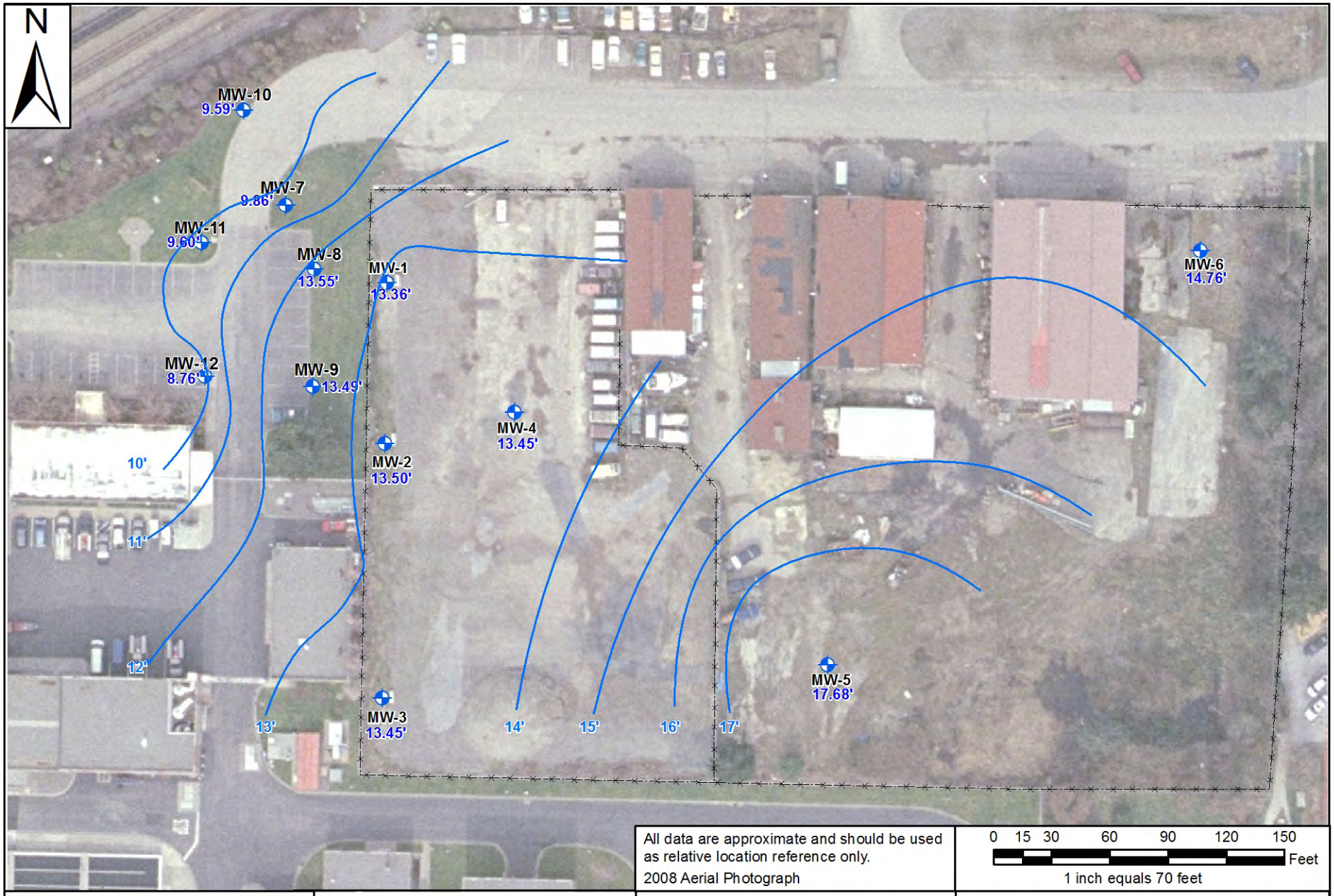
whatcom ENVIRONMENTAL

Groundwater Elevations June 15, 2011

210 McKenzie Remediation

7/14/2011

Figure C2



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Active GW Monitoring Wells

Fence

Groundwater Contour

00' Groundwater Contour Elevation

00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

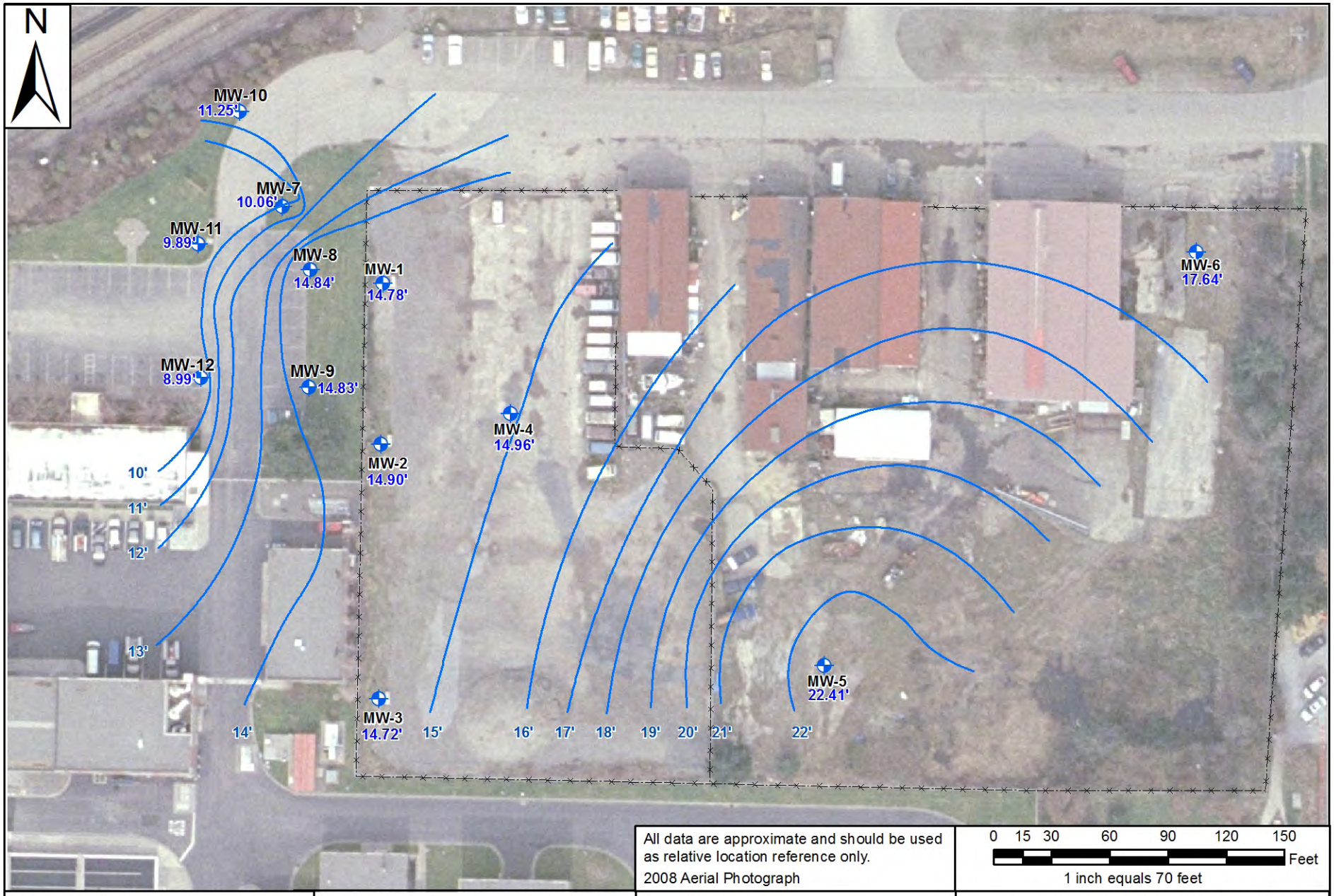
whatcom ENVIRONMENTAL

Groundwater Elevations September 21, 2011

210 McKenzie Remediation

11/1/11

Figure C3



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Active GW Monitoring Wells
Fence
Groundwater Contour
00' Groundwater Contour Elevation
00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

whatcom ENVIRONMENTAL

Groundwater Elevations December 6, 2011

210 McKenzie Remediation

12/8/11

Figure C4

APPENDIX D

Groundwater Sample Laboratory Analytical Data

First Quarter 2011 Groundwater Data

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103129
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/23/2011
CLIENT PROJECT:	210 McKenzie Additional Wells	COLLECTION DATE:	3/22/2011 10:00
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/25/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/25/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	**0.71**	0.26	1	MG/L	03/23/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	**0.93**	0.79	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**70.3**	03/23/2011	DLC
TFT	EPA-8021	**83.3**	03/23/2011	DLC
C25	NWTPH-DX	**84.2**	03/25/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	4/6/2011 1103129 -02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/23/2011
CLIENT PROJECT:	210 McKenzie Additional Wells	COLLECTION DATE:	3/22/2011 11:15
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/25/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/25/2011	EBS
Methane	RSK-175	**6.2**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	**1.4**	0.26	1	MG/L	03/23/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL
Arsenic (Dissolved)	EPA-6020	**7.1**	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	**2.1**	0.79	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**28000**	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**62.4**	03/23/2011	DLC
TFT	EPA-8021	**70.0**	03/23/2011	DLC
C25	NWTPH-DX	**85.9**	03/25/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	4/6/2011 1103129 -03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/23/2011
CLIENT PROJECT:	210 McKenzie Additional Wells	COLLECTION DATE:	3/22/2011 13:00
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**55**	50	1	UG/L	03/24/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/24/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/24/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/24/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/24/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/24/2011	DLC
TPH-Diesel Range	NWTPH-DX	**150**	130	1	UG/L	03/25/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/25/2011	EBS
Methane	RSK-175	**4.5**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	**0.82**	0.26	1	MG/L	03/23/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL
Arsenic (Dissolved)	EPA-6020	**5.5**	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	**0.82**	0.79	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**36000**	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	**0.64**	0.62	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**5.3**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**96.2**	03/24/2011	DLC
TFT	EPA-8021	**112**	03/24/2011	DLC
C25	NWTPH-DX	**87.0**	03/25/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline and weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	4/6/2011 1103129 -04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/23/2011
CLIENT PROJECT:	210 McKenzie Additional Wells	COLLECTION DATE:	3/22/2011 14:00
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/25/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/25/2011	EBS
Methane	RSK-175	**2.9**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	**0.43**	0.26	1	MG/L	03/23/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL
Arsenic (Dissolved)	EPA-6020	**6.8**	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	**2.0**	0.79	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**27000**	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	**0.69**	0.62	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**77.1**	03/23/2011	DLC
TFT	EPA-8021	**86.5**	03/23/2011	DLC
C25	NWTPH-DX	**104**	03/25/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	4/6/2011 1103129 -05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/23/2011
CLIENT PROJECT:	210 McKenzie Additional Wells	COLLECTION DATE:	3/22/2011 15:00
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/25/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/25/2011	EBS
Methane	RSK-175	**5.3**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	**0.75**	0.26	1	MG/L	03/23/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL
Arsenic (Dissolved)	EPA-6020	**2.7**	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	**0.95**	0.79	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**18000**	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	**0.74**	0.62	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.8**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**80.0**	03/23/2011	DLC
TFT	EPA-8021	**98.0**	03/23/2011	DLC
C25	NWTPH-DX	**100**	03/25/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: 210 McKenzie Additional Wells

DATE: 4/6/2011
ALS JOB#: 1103129
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-032211W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/22/2011	DLC

MB-032211W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/22/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/22/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/22/2011	DLC

MB-031811W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/18/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/18/2011	EBS

MBLK-452011

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	04/05/2011	CCN

MBLK-3232011

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/23/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	03/23/2011	GAP

MBLK-442011

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	04/04/2011	RAL

MB-032511W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	03/29/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.27	1	UG/L	03/29/2011	RAL
Chromium (Dissolved)	EPA-6020	U	0.59	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	03/29/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	03/29/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103129
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Additional Wells		

LABORATORY BLANK RESULTS

MB-032511W

MB-R72974

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI

MB-R72975

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	04/01/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103129
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Additional Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1594 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**90.9**			03/22/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**97.2**	**6**		03/22/2011	DLC

ALS Test Batch ID: 1594 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	SW8021	**104**			03/22/2011	DLC
Methyl T-Butyl Ether - BSD	SW8021	**107**	**3**		03/22/2011	DLC
Benzene - BS	SW8021	**101**			03/22/2011	DLC
Benzene - BSD	SW8021	**105**	**4**		03/22/2011	DLC
Toluene - BS	SW8021	**97.4**			03/22/2011	DLC
Toluene - BSD	SW8021	**101**	**3**		03/22/2011	DLC
Ethylbenzene - BS	SW8021	**94.3**			03/22/2011	DLC
Ethylbenzene - BSD	SW8021	**98.3**	**4**		03/22/2011	DLC
Xylenes - BS	SW8021	**94.4**			03/22/2011	DLC
Xylenes - BSD	SW8021	**98.3**	**4**		03/22/2011	DLC

ALS Test Batch ID: 1585 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**90.5**			03/18/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**90.1**	**0**		03/18/2011	EBS

ALS Test Batch ID: R72971 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**97.1**			04/05/2011	CCN
Methane - BSD	RSK-175	**95.8**	**1**		04/05/2011	CCN

ALS Test Batch ID: R72972 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA300.0	**87.0**			03/23/2011	GAP
Phosphate - BSD	EPA300.0	**88.0**	**1**		03/23/2011	GAP
Sulfate - BS	EPA300.0	**90.0**			03/23/2011	GAP
Sulfate - BSD	EPA300.0	**88.0**	**2**		03/23/2011	GAP

ALS Test Batch ID: R72973 - Water by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved) - BS	SW7470	**105**			04/04/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103129
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Additional Wells		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved) - BSD	SW7470	**95.0**	**10**		04/04/2011	RAL

ALS Test Batch ID: 1600 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	SW6020	**104**			03/29/2011	RAL
Arsenic (Dissolved) - BSD	SW6020	**105**	**0**		03/29/2011	RAL
Cadmium (Dissolved) - BS	SW6020	**101**			03/29/2011	RAL
Cadmium (Dissolved) - BSD	SW6020	**102**	**1**		03/29/2011	RAL
Chromium (Dissolved) - BS	SW6020	**102**			03/29/2011	RAL
Chromium (Dissolved) - BSD	SW6020	**104**	**1**		03/29/2011	RAL
Iron (Dissolved) - BS	SW6020	**103**			03/29/2011	RAL
Iron (Dissolved) - BSD	SW6020	**104**	**1**		03/29/2011	RAL
Lead (Dissolved) - BS	SW6020	**101**			03/29/2011	RAL
Lead (Dissolved) - BSD	SW6020	**103**	**1**		03/29/2011	RAL

ALS Test Batch ID: R72975 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**103**			04/01/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103129
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Additional Wells		

MATRIX SPIKE RESULTS

ALS Test Batch ID: 1585 - Water by NWTPH-DX

Parent Sample: BATCH QC

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - MS	NWTPH-DX	**100**			03/21/2011	EBS
TPH-Diesel Range - MSD	NWTPH-DX	**100**	**0**		03/21/2011	EBS

APPROVED BY

Laboratory Director

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(206) 292-9059 Seattle
(425) 356-2626 Fax
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only) 1103129

Date 3/22/11 Page 1 Of 1

PROJECT ID: 210 Mckenzie Additional Wells
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Thom
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: FAX: 752-9572
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 & EPA-8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5 X RCRA	Metals Other (Specify) Arsenic (As) Dissolved	TCLP-Metals VOA Semi-Vol Pest Herbs	Methane	Sulfide	Sulfate	Phosphate	Metals: Iron (Fe) - dissolved	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-11	3/22/11	1000	Water	1		X	X	X	X								X	X		X	X	X	X	X	X	9	
2. MW-7		1115		2		X	X	X	X								X	X		X	X	X	X	X	X	9	
3. MW-9		1300		3		X	X	X	X								X	X		X	X	X	X	X	X	9	
4. MW-10		1400		4		X	X	X	X								X	X		X	X	X	X	X	X	9	
5. MW-8		1500	↓	5		X	X	X	X								X	X		X	X	X	X	X	X	9	
6.																											
7.																											
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 3/22/11 @ 1600
Received By:
2. Relinquished By:
Received By: Shawn Roberson ALS 3/23/11 9:20

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) 3 1 SAME DAY

OTHER:
Specify: Thom changed to MTCA-5 Diss and Fe Diss. on 3/23/11.

* Turnaround request less than standard may incur Rush Charges

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 10:00
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	**0.90**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**9.3**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**5.4**	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**28000**	220	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**4.0**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.3**	03/25/2011	DLC
TFT	EPA-8021	**102**	03/25/2011	DLC
C25	NWTPH-DX	**104**	03/29/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 11:00
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	**3.4**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**1.8**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**7.8**	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**27000**	220	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**4.9**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.6**	03/25/2011	DLC
TFT	EPA-8021	**104**	03/25/2011	DLC
C25	NWTPH-DX	**104**	03/29/2011	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 12:15
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	**1.7**	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	**10**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**2.0**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**3.6**	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	**39000**	220	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**13**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**98.4**	03/25/2011	DLC
TFT	EPA-8021	**106**	03/25/2011	DLC
C25	NWTPH-DX	**102**	03/29/2011	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 13:15
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**12**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**2.5**	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**1.8**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**84.4**	03/25/2011	DLC
TFT	EPA-8021	**103**	03/25/2011	DLC
C25	NWTPH-DX	**104**	03/29/2011	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 14:15
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**3.8**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**2.2**	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	03/29/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**2.2**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	03/25/2011	DLC
TFT	EPA-8021	**103**	03/25/2011	DLC
C25	NWTPH-DX	**97.7**	03/29/2011	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	3/24/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	3/23/2011 15:40
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/29/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/29/2011	EBS
Methane	RSK-175	**2.4**	0.010	1	MG/L	04/05/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	**2.4**	0.26	1	MG/L	03/25/2011	ARI
Arsenic (Dissolved)	EPA-6020	**8.0**	1.8	1	UG/L	03/30/2011	RAL
Iron (Dissolved)	EPA-6020	**16000**	220	1	UG/L	03/30/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**8.5**	0.25	1	MG/L	04/01/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.0**	03/25/2011	DLC
TFT	EPA-8021	**99.8**	03/25/2011	DLC
C25	NWTPH-DX	**98.5**	03/29/2011	EBS

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MBG-032411W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/25/2011	DLC

MB-032411W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/25/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/25/2011	DLC

MB-032411W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/24/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/24/2011	EBS

MBLK-452011

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	04/05/2011	CCN

MBLK-3252011

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	03/25/2011	ARI
Sulfate	EPA-300.0	U	0.26	1	MG/L	03/25/2011	ARI

MB-032511W

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	03/29/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	03/29/2011	RAL

MB-R72967

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	03/29/2011	ARI

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MB-R72968

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	04/01/2011	ARI

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1598 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**102**			03/24/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**106**	**3**		03/24/2011	DLC

ALS Test Batch ID: 1598 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	SW8021	**105**			03/24/2011	DLC
Methyl T-Butyl Ether - BSD	SW8021	**106**	**0**		03/24/2011	DLC
Benzene - BS	SW8021	**103**			03/24/2011	DLC
Benzene - BSD	SW8021	**104**	**1**		03/24/2011	DLC
Toluene - BS	SW8021	**104**			03/24/2011	DLC
Toluene - BSD	SW8021	**102**	**1**		03/24/2011	DLC
Ethylbenzene - BS	SW8021	**97.4**			03/24/2011	DLC
Ethylbenzene - BSD	SW8021	**97.5**	**0**		03/24/2011	DLC
Xylenes - BS	SW8021	**100**			03/24/2011	DLC
Xylenes - BSD	SW8021	**98.9**	**1**		03/24/2011	DLC

ALS Test Batch ID: 1602 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**92.2**			03/24/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**99.8**	**7**		03/24/2011	EBS

ALS Test Batch ID: R72971 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**97.1**			04/05/2011	CCN
Methane - BSD	RSK-175	**95.8**	**1**		04/05/2011	CCN

ALS Test Batch ID: R72969 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA300.0	**106**			03/25/2011	ARI
Phosphate - BSD	EPA300.0	**110**	**3**		03/25/2011	ARI
Sulfate - BS	EPA300.0	**88.0**			03/25/2011	ARI
Sulfate - BSD	EPA300.0	**91.0**	**3**		03/25/2011	ARI

ALS Test Batch ID: 1600 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	SW6020	**104**			03/29/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BSD	SW6020	**105**	**0**		03/29/2011	RAL
Iron (Dissolved) - BS	SW6020	**103**			03/29/2011	RAL
Iron (Dissolved) - BSD	SW6020	**104**	**1**		03/29/2011	RAL

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	4/6/2011
		ALS JOB#:	1103144
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

MATRIX SPIKE RESULTS

ALS Test Batch ID: 1602 - Water by NWTPH-DX

Parent Sample: BATCH QC

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - MS	NWTPH-DX	**92.0**			03/25/2011	EBS
TPH-Diesel Range - MSD	NWTPH-DX	**85.0**	**7**		03/25/2011	EBS

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only) 1103144

Date 3/23/11 Page 1 Of 1

PROJECT ID: 210 Mckenzie
REPORT TO COMPANY: Whatcom Environmental
PROJECT MANAGER: Thom
ADDRESS: 228 E. Champion #101
Bellingham, WA 98225
PHONE: FAX: 360-752-9573
PO. NUMBER: E-MAIL: tlaurer@---
INVOICE TO COMPANY:
ATTENTION: Same ↑
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 EPA-8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5 RCRA-8 Pri Pol TAL	Metals Other (Specify) Arsenic (As) Dissolved	TCLP-Metals VOA Semi-Vol Pest Herbs	Methane	Sulfide	Sulfate	Phosphate	Metals; Iron (Fe) - dissolved	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	3/23/11	1000	Water	1	X	X	X	X										X		X	X	X	X	X	X	9	
2. MW-2		1100		2	X	X	X	X										X		X	X	X	X	X	X	9	
3. MW-3		1215		3	X	X	X	X										X		X	X	X	X	X	X	9	
4. MW-4		1315		4	X	X	X	X										X		X	X	X	X	X	X	9	
5. MW-5		1415		5	X	X	X	X										X		X	X	X	X	X	X	9	
6. MW-6		1540		6	X	X	X	X										X		X	X	X	X	X	X	9	
7.																											
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS Metals samples Field Filtered into Nitric Preserved Bottle. Analyze only (As) and (Fe) metals

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 3/24/11 @ 0800
Received By:
2. Relinquished By:
Received By: Shawn Robertson ALS 3/24/11 1:20

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Second Quarter 2011 Groundwater Data

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 09:50
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**5.4**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP
Arsenic (Dissolved)	EPA-6020	**7.6**	1.8	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**23000**	220	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**85.8**	06/16/2011	DLC
TFT	EPA-8021	**98.2**	06/16/2011	DLC
C25	NWTPH-DX	**101**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 10:55
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	**170**	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**8.3**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP
Arsenic (Dissolved)	EPA-6020	**3.3**	1.8	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**31000**	220	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.9**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**77.6**	06/16/2011	DLC
TFT	EPA-8021	**96.3**	06/16/2011	DLC
C25	NWTPH-DX	**115**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 12:00
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	**210**	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**11**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP
Arsenic (Dissolved)	EPA-6020	**6.2**	1.8	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**32000**	220	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.1**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**73.0**	06/16/2011	DLC
TFT	EPA-8021	**89.9**	06/16/2011	DLC
C25	NWTPH-DX	**89.3**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 13:55
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**0.33**	0.010	1	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	**2.0**	0.26	1	MG/L	06/16/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	06/21/2011	RAL
Arsenic (Dissolved)	EPA-6020	**2.1**	1.8	1	UG/L	06/17/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.27	1	UG/L	06/17/2011	RAL
Chromium (Dissolved)	EPA-6020	**1.1**	0.59	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**590**	220	1	UG/L	06/17/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**3.6**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	06/16/2011	DLC
TFT	EPA-8021	**119**	06/16/2011	DLC
C25	NWTPH-DX	**100**	06/20/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 15:15
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**3.8**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	06/21/2011	RAL
Arsenic (Dissolved)	EPA-6020	**4.3**	1.8	1	UG/L	06/17/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.27	1	UG/L	06/17/2011	RAL
Chromium (Dissolved)	EPA-6020	**4.8**	0.59	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**13000**	220	1	UG/L	06/17/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**9.6**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.6**	06/16/2011	DLC
TFT	EPA-8021	**96.9**	06/16/2011	DLC
C25	NWTPH-DX	**93.4**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 16:25
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**2.8**	0.050	5	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	**3.7**	0.26	1	MG/L	06/16/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	06/21/2011	RAL
Arsenic (Dissolved)	EPA-6020	**3.4**	1.8	1	UG/L	06/17/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.27	1	UG/L	06/17/2011	RAL
Chromium (Dissolved)	EPA-6020	**5.5**	0.59	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**3700**	220	1	UG/L	06/17/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.1**	06/16/2011	DLC
TFT	EPA-8021	**98.9**	06/16/2011	DLC
C25	NWTPH-DX	**98.8**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106079
		ALS SAMPLE#:	-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/16/2011
CLIENT PROJECT:	210 McKenzie Add Wells	COLLECTION DATE:	6/15/2011 12:25
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2011	DLC
TPH-Diesel Range	NWTPH-DX	**170**	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**13**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP
Arsenic (Dissolved)	EPA-6020	**5.9**	1.8	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	**32000**	220	1	UG/L	06/17/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.3**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**86.5**	06/16/2011	DLC
TFT	EPA-8021	**95.9**	06/16/2011	DLC
C25	NWTPH-DX	**98.2**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106079
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Add Wells		

LABORATORY BLANK RESULTS

MBG-061511W - Batch 1862 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/15/2011	DLC

MB-061511W - Batch 1862 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/15/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/15/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/15/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/15/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/15/2011	DLC

MB-061511W - Batch 1858 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/17/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/17/2011	EBS

MBLK-6272011 - Batch R73958 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	06/27/2011	CCN

MBLK-6162011 - Batch R73911 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/16/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/16/2011	GAP

MB-061711W - Batch 1869 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	06/17/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	06/17/2011	RAL
Chromium (Dissolved)	EPA-6020	U	0.79	1	UG/L	06/17/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	06/17/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106079
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Add Wells		

LABORATORY BLANK RESULTS

MB-061711W - Batch 1869 - Water by EPA-6020

Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	06/17/2011	RAL

MB-R73976 - Batch R73976 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI

MB-R73977 - Batch R73977 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	06/27/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106079
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Add Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1862 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**89.6**			06/15/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**87.1**	**3**		06/15/2011	DLC

ALS Test Batch ID: 1862 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**97.0**			06/15/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**97.4**	**0**		06/15/2011	DLC
Benzene - BS	EPA-8021	**105**			06/15/2011	DLC
Benzene - BSD	EPA-8021	**105**	**0**		06/15/2011	DLC
Toluene - BS	EPA-8021	**99.4**			06/15/2011	DLC
Toluene - BSD	EPA-8021	**98.5**	**1**		06/15/2011	DLC
Ethylbenzene - BS	EPA-8021	**95.7**			06/15/2011	DLC
Ethylbenzene - BSD	EPA-8021	**92.8**	**3**		06/15/2011	DLC
Xylenes - BS	EPA-8021	**96.4**			06/15/2011	DLC
Xylenes - BSD	EPA-8021	**93.1**	**4**		06/15/2011	DLC

ALS Test Batch ID: 1858 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**101**			06/17/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**98.2**	**2**		06/17/2011	EBS

ALS Test Batch ID: R73958 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**99.1**			06/27/2011	CCN
Methane - BSD	RSK-175	**101**	**2**		06/27/2011	CCN

ALS Test Batch ID: R73911 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**103**			06/16/2011	GAP
Phosphate - BSD	EPA-300.0	**103**	**0**		06/16/2011	GAP
Sulfate - BS	EPA-300.0	**95.0**			06/16/2011	GAP
Sulfate - BSD	EPA-300.0	**90.0**	**5**		06/16/2011	GAP

ALS Test Batch ID: 1869 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**101**			06/17/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS SDG#: WDOE ACCREDITATION:	6/28/2011 1106079 C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie Add Wells		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BSD	EPA-6020	**101**	**0**		06/17/2011	RAL
Cadmium (Dissolved) - BS	EPA-6020	**98.6**			06/17/2011	RAL
Cadmium (Dissolved) - BSD	EPA-6020	**99.6**	**1**		06/17/2011	RAL
Chromium (Dissolved) - BS	EPA-6020	**99.0**			06/17/2011	RAL
Chromium (Dissolved) - BSD	EPA-6020	**99.1**	**0**		06/17/2011	RAL
Iron (Dissolved) - BS	EPA-6020	**99.3**			06/17/2011	RAL
Iron (Dissolved) - BSD	EPA-6020	**99.5**	**0**		06/17/2011	RAL
Lead (Dissolved) - BS	EPA-6020	**96.5**			06/17/2011	RAL
Lead (Dissolved) - BSD	EPA-6020	**97.5**	**1**		06/17/2011	RAL

ALS Test Batch ID: R73977 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**106**			06/27/2011	ARI

APPROVED BY

Laboratory Director

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(425) 356-2626 Fax
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only) 1106079

Date 6/16/11 Page 1 Of 1

PROJECT ID: 210 McKenzie Add Wells
REPORT TO COMPANY: Whatcom Environmental
PROJECT MANAGER: Thom Davis
ADDRESS: 228 E. Champion St #101
Bellingham, WA 98225
PHONE: (360) 752-9571 FAX: (360) 752-9573
E-MAIL: tdavis@wha...
P.O. NUMBER:
INVOICE TO COMPANY: Same As Above
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 / EPA-8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB / Pesticides by EPA 8081/8082	Metals-MTCA-5 / RCRA-8 / Pri Pol / TAL (Diss Iron)	Metals Other (Specify) Arsenic (Dissolved)	TCLP-Metals / VOA / Semi-Vol / Pest / Herbs	Methane	Sulfide	Sulfate	Phosphate	Metals (Iron (Fe) Dissolved)	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-7	6-15-11	9:50	WATER	1		X	X	X	X									X		X	X	X	X	X	X	8	
2. MW-8	6-15-11	10:55		2		X	X	X	X									X		X	X	X	X	X	X	8	
3. MW-9	6-15-11	12:00		3		X	X	X	X									X		X	X	X	X	X	X	8	
4. MW-10	6-15-11	1:55		4		X	X	X	X								X	X		X	X	X	X	X	X	8	
5. MW-11	6-15-11	3:15		5		X	X	X	X								X	X		X	X	X	X	X	X	8	
6. MW-12	6/15/11	4:25		6		X	X	X	X								X	X		X	X	X	X	X	X	8	
7. MW-13	6-15-11	12:25		7		X	X	X	X									X		X	X	X	X	X	X	8	
8.																											
9.																											
10.																											

SPECIAL INSTRUCTIONS All metals Samples were Field Filtered

LABORATORY COPY

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By:
Received By:
2. Relinquished By:
Received By: Shawn Robinson ALS 6/16/11 2:40

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 12:00
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**0.74**	0.010	1	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	**5.6**	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**6.5**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	**26000**	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**4.6**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.5**	06/17/2011	DLC
TFT	EPA-8021	**99.2**	06/17/2011	DLC
C25	NWTPH-DX	**86.8**	06/20/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 13:15
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**5.3**	0.050	5	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	**0.78**	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**10**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	**24000**	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**5.2**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**93.7**	06/17/2011	DLC
TFT	EPA-8021	**104**	06/17/2011	DLC
C25	NWTPH-DX	**83.5**	06/20/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 14:25
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	**1.9**	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/21/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/21/2011	EBS
Methane	RSK-175	**11**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**3.9**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	**35000**	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**13**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**81.8**	06/17/2011	DLC
TFT	EPA-8021	**102**	06/17/2011	DLC
C25	NWTPH-DX	**112**	06/21/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 11:15
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	**9.8**	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**1.9**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**2.0**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**79.1**	06/17/2011	DLC
TFT	EPA-8021	**96.6**	06/17/2011	DLC
C25	NWTPH-DX	**83.9**	06/20/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 09:45
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	**2.3**	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**3.0**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**1.9**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.5**	06/17/2011	DLC
TFT	EPA-8021	**97.7**	06/17/2011	DLC
C25	NWTPH-DX	**82.1**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 08:20
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	**7.8**	0.10	10	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	**4.6**	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	**8.8**	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	**24000**	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**10**	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.3**	06/17/2011	DLC
TFT	EPA-8021	**99.3**	06/17/2011	DLC
C25	NWTPH-DX	**83.8**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS JOB#:	1106089
		ALS SAMPLE#:	-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 08:40
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	**8.9**	1.8	1	UG/L	06/22/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/28/2011 1106089 -08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/17/2011
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/16/2011 15:00
CLIENT SAMPLE ID	MW-15	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	06/27/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/17/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	06/22/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	06/27/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**91.1**	06/17/2011	DLC
TFT	EPA-8021	**95.4**	06/17/2011	DLC
C25	NWTPH-DX	**85.5**	06/20/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106089
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MBG-061711W - Batch 1873 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/17/2011	DLC

MB-061711W - Batch 1873 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/17/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/17/2011	DLC

MB-061711W - Batch 1874 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/20/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/20/2011	EBS

MBLK-6272011 - Batch R73958 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	06/27/2011	CCN

MBLK-6172011 - Batch R73912 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	06/17/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	06/17/2011	GAP

MB-062111W - Batch 1879 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	06/22/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	06/22/2011	RAL

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106089
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MB-R73973 - Batch R73973 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	06/22/2011	ARI

MB-R73974 - Batch R73974 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	06/27/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106089
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 1873 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**91.4**			06/17/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**87.2**	**5**		06/17/2011	DLC

ALS Test Batch ID: 1873 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**99.8**			06/20/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**100**	**0**		06/17/2011	DLC
Benzene - BS	EPA-8021	**110**			06/20/2011	DLC
Benzene - BSD	EPA-8021	**111**	**1**		06/17/2011	DLC
Toluene - BS	EPA-8021	**105**			06/20/2011	DLC
Toluene - BSD	EPA-8021	**106**	**1**		06/17/2011	DLC
Ethylbenzene - BS	EPA-8021	**102**			06/20/2011	DLC
Ethylbenzene - BSD	EPA-8021	**103**	**1**		06/17/2011	DLC
Xylenes - BS	EPA-8021	**103**			06/20/2011	DLC
Xylenes - BSD	EPA-8021	**104**	**1**		06/17/2011	DLC

ALS Test Batch ID: 1874 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**88.5**			06/20/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**93.9**	**6**		06/20/2011	EBS

ALS Test Batch ID: R73958 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**99.1**			06/27/2011	CCN
Methane - BSD	RSK-175	**101**	**2**		06/27/2011	CCN

ALS Test Batch ID: R73912 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**110**			06/17/2011	GAP
Phosphate - BSD	EPA-300.0	**115**	**4**		06/17/2011	GAP
Sulfate - BS	EPA-300.0	**83.0**			06/17/2011	GAP
Sulfate - BSD	EPA-300.0	**84.0**	**1**		06/17/2011	GAP

ALS Test Batch ID: 1879 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**102**			06/22/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106089
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BSD	EPA-6020	**102**	**0**		06/22/2011	RAL
Iron (Dissolved) - BS	EPA-6020	**98.8**			06/22/2011	RAL
Iron (Dissolved) - BSD	EPA-6020	**99.6**	**1**		06/22/2011	RAL

ALS Test Batch ID: R73974 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**106**			06/27/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/28/2011
		ALS SDG#:	1106089
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

MATRIX SPIKE RESULTS

ALS Test Batch ID: 1873 - Water by NWTPH-GX
Parent Sample: BATCH QC

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - MS	NWTPH-GX	**81.8**			06/23/2011	DLC
TPH-Volatile Range - MSD	NWTPH-GX	**90.6**	**10**		06/23/2011	DLC

ALS Test Batch ID: 1874 - Water by NWTPH-DX
Parent Sample: BATCH QC

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - MS	NWTPH-DX	**98.8**			06/23/2011	EBS
TPH-Diesel Range - MSD	NWTPH-DX	**104**	**5**		06/23/2011	EBS

APPROVED BY

Laboratory Director

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(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1106089

Date 6/16/11 Page 1 Of 1

PROJECT ID: 210 McKenzie ~~Add Wells~~
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Thom Davis
ADDRESS: 228 E. Champion St #101
Bellingham, WA 98225
PHONE: 360 757-9571 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☒ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Dissolved Arsenic	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify) Methane	Sulfide	Sulfate	Phosphate	Dissolved Iron	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	6/16/11	12:00	water	1		X	X	X	X									X		X	X	X	X	X	X	8	
2. MW-2		1:15		2		X	X	X	X									X		X	X	X	X	X	X	8	
3. MW-3		2:25		3		X	X	X	X									X		X	X	X	X	X	X	8	
4. MW-4		11:15		4		X	X	X	X									X		X	X	X	X	X	X	8	
5. MW-5		9:45		5		X	X	X	X									X		X	X	X	X	X	X	8	
6. MW-6		8:20		6		X	X	X	X									X		X	X	X	X	X	X	8	
7. MW-14		8:40		7														X								1	
8. MW-15		3:40		8		X	X	X	X									X		X	X	X	X	X	X	8	
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS: All metals samples were field filtered

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: Dan Heft, WES, 6-16-11, 4:00
Received By:
2. Relinquished By:
Received By: Shawn Robinson AU 6/17/11 10:15

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Third Quarter 2011 Groundwater Data

September 29, 2011

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On September 22nd, 7 samples were received by our laboratory and assigned our laboratory project number 1109096. The project was identified as your COB: 210 McKenzie Add. Wells. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS JOB#:	1109096
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 15:45
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**4.4**	0.050	5	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/22/2011	GAP
Arsenic (Dissolved)	EPA-6020	**8.7**	1.8	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**35000**	220	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**9.9**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**79.4**	09/23/2011	DLC
TFT	EPA-8021	**103**	09/23/2011	DLC
C25	NWTPH-DX	**106**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/29/2011 1109096 -02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 16:45
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**10**	0.050	5	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	**0.27**	0.26	1	MG/L	09/22/2011	GAP
Arsenic (Dissolved)	EPA-6020	**2.0**	1.8	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**30000**	220	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**7.5**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**84.0**	09/23/2011	DLC
TFT	EPA-8021	**106**	09/23/2011	DLC
C25	NWTPH-DX	**106**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS JOB#:	1109096
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 17:40
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	**3.9**	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	**180**	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**7.7**	0.10	10	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/22/2011	GAP
Arsenic (Dissolved)	EPA-6020	**3.0**	1.8	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**26000**	220	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	**0.10**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**7.1**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**86.2**	09/23/2011	DLC
TFT	EPA-8021	**108**	09/23/2011	DLC
C25	NWTPH-DX	**109**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS JOB#:	1109096
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 14:30
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/23/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/23/2011	GAP
Methane	RSK-175	**0.82**	0.010	1	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	**15**	0.26	1	MG/L	09/22/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	09/26/2011	RAL
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/23/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	09/23/2011	RAL
Chromium (Dissolved)	EPA-6020	U	0.79	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**2300**	220	1	UG/L	09/23/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**3.4**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.0**	09/23/2011	DLC
TFT	EPA-8021	**108**	09/23/2011	DLC
C25	NWTPH-DX	**73.9**	09/23/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/29/2011 1109096 -05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 13:00
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**2.9**	0.050	5	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	**1.7**	0.26	1	MG/L	09/22/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	09/26/2011	RAL
Arsenic (Dissolved)	EPA-6020	**7.5**	1.8	1	UG/L	09/23/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	09/23/2011	RAL
Chromium (Dissolved)	EPA-6020	U	0.79	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**39000**	220	1	UG/L	09/23/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**12**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.1**	09/23/2011	DLC
TFT	EPA-8021	**107**	09/23/2011	DLC
C25	NWTPH-DX	**111**	09/26/2011	GAP

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS JOB#:	1109096
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 11:00
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/23/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/23/2011	GAP
Methane	RSK-175	**3.2**	0.050	5	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/22/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	09/26/2011	RAL
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/23/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	09/23/2011	RAL
Chromium (Dissolved)	EPA-6020	**5.2**	0.79	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**5400**	220	1	UG/L	09/23/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**9.5**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.7**	09/23/2011	DLC
TFT	EPA-8021	**105**	09/23/2011	DLC
C25	NWTPH-DX	**68.8**	09/23/2011	GAP

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS JOB#:	1109096
		ALS SAMPLE#:	-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/22/2011
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells	COLLECTION DATE:	9/21/2011 10:00
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**2.9**	0.050	5	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/22/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/23/2011	RAL
Iron (Dissolved)	EPA-6020	**5500**	220	1	UG/L	09/23/2011	RAL
Sulfide	EPA-376.1	**0.16**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**9.6**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**77.3**	09/23/2011	DLC
TFT	EPA-8021	**104**	09/23/2011	DLC
C25	NWTPH-DX	**89.4**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie Add. Wells

DATE: 9/29/2011
ALS SDG#: 1109096
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-092011W - Batch 2120 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/20/2011	DLC

MB-092011W - Batch 2120 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/20/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/20/2011	DLC

MB-091611W - Batch 2107 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/16/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/16/2011	EBS

MBLK-9292011 - Batch R74894 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	09/29/2011	CCN

MBLK-9222011 - Batch R74850 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/22/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/22/2011	GAP

MBLK-9262011 - Batch R74851 - Water by EPA-7470

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	09/26/2011	RAL

MB-R74852 - Batch R74852 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS SDG#:	1109096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells		

LABORATORY BLANK RESULTS

MB-R74853 - Batch R74853 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	09/24/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS SDG#:	1109096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2120 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**76.8**			09/20/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**75.8**	**1**		09/20/2011	DLC

ALS Test Batch ID: 2120 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**94.5**			09/20/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**97.2**	**3**		09/20/2011	DLC
Benzene - BS	EPA-8021	**109**			09/20/2011	DLC
Benzene - BSD	EPA-8021	**110**	**1**		09/20/2011	DLC
Toluene - BS	EPA-8021	**105**			09/20/2011	DLC
Toluene - BSD	EPA-8021	**106**	**1**		09/20/2011	DLC
Ethylbenzene - BS	EPA-8021	**102**			09/20/2011	DLC
Ethylbenzene - BSD	EPA-8021	**102**	**0**		09/20/2011	DLC
Xylenes - BS	EPA-8021	**103**			09/20/2011	DLC
Xylenes - BSD	EPA-8021	**104**	**1**		09/20/2011	DLC

ALS Test Batch ID: 2107 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**89.3**			09/16/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**87.7**	**2**		09/16/2011	EBS

ALS Test Batch ID: R74894 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**113**			09/29/2011	CCN
Methane - BSD	RSK-175	**101**	**11**		09/29/2011	CCN

ALS Test Batch ID: R74850 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**104**			09/22/2011	GAP
Phosphate - BSD	EPA-300.0	**103**	**1**		09/22/2011	GAP
Sulfate - BS	EPA-300.0	**88.0**			09/22/2011	GAP
Sulfate - BSD	EPA-300.0	**96.0**	**9**		09/22/2011	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/29/2011
		ALS SDG#:	1109096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Add. Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R74851 - Water by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved) - BS	EPA-7470	**105**			09/26/2011	RAL
Mercury (Dissolved) - BSD	EPA-7470	**101**	**4**		09/26/2011	RAL

ALS Test Batch ID: R74853 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**107**			09/24/2011	ARI

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only) 1109096

Date 9/21/11 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie Add. Wells
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Castleman
ADDRESS: 228 E. Champion St #101, Bellingham, WA 98225
PHONE: 360 752-9571 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 EPA-8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5 RCRA-8 Pri Pol TAL (Dissolved)	Metals Other (Specify) Arsenic (Dissolved)	TCLP-Metals VOA Semi-Vol Pest Herbs	Methane	Sulfide	Sulfate	Phosphate	Dissolved Iron	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-7	9/21/11	3:45	water	1		X	X	X	X									X		X	X	X	X	X	X		
2. MW-8		4:45		2		X	X	X	X									X		X	X	X	X	X	X		
3. MW-9		5:40		3		X	X	X	X									X		X	X	X	X	X	X		
4. MW-10		2:30		4		X	X	X	X								X	X		X	X	X	X	X	X		
5. MW-11		1:00		5		X	X	X	X								X	X		X	X	X	X	X	X		
6. MW-12		11:00		6		X	X	X	X								X	X		X	X	X	X	X	X		
7. MW-13		10:00		7		X	X	X	X									X		X	X	X	X	X	X		
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS: All metals samples were field filtered

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 9/22/11 8:15
   Received By:
2. Relinquished By:
   Received By: Shawn Robinson ALS 9/22/11 1:30

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) Standard 5 3 2 1 SAME DAY — OTHER: Specify:

Fuels & Hydrocarbon Analysis: (5) Standard 3 1 SAME DAY

* Turnaround request less than standard may incur Rush Charges

September 30, 2011

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On September 23rd, 7 samples were received by our laboratory and assigned our laboratory project number 1109101. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 09:30
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**3.4**	0.020	2	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	**11**	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	**40000**	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.10**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.4**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**78.8**	09/23/2011	DLC
TFT	EPA-8021	**102**	09/23/2011	DLC
C25	NWTPH-DX	**118**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 10:30
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	**210**	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**5.2**	0.10	10	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	**0.80**	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	**15**	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	**25000**	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.080**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.1**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.3**	09/23/2011	DLC
TFT	EPA-8021	**115**	09/23/2011	DLC
C25	NWTPH-DX	**86.9**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 11:30
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	**2.6**	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	**150**	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**7.0**	0.10	10	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	**16**	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	**8.4**	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	**45000**	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**18**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.4**	09/23/2011	DLC
TFT	EPA-8021	**115**	09/23/2011	DLC
C25	NWTPH-DX	**84.5**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 12:40
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	**6.4**	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	U	0.010	1	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	**9.9**	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**3.2**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**76.4**	09/23/2011	DLC
TFT	EPA-8021	**104**	09/23/2011	DLC
C25	NWTPH-DX	**95.6**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 13:45
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/23/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/23/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/23/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	U	0.010	1	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	**7.8**	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**2.5**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.0**	09/23/2011	DLC
TFT	EPA-8021	**107**	09/23/2011	DLC
C25	NWTPH-DX	**99.4**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 15:30
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/24/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/24/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/24/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	**1.8**	0.010	1	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	**15**	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	**27000**	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.10**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**85.2**	09/24/2011	DLC
TFT	EPA-8021	**106**	09/24/2011	DLC
C25	NWTPH-DX	**102**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS JOB#:	1109101
		ALS SAMPLE#:	-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	9/23/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/22/2011 14:15
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/24/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/24/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/24/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/24/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2011	GAP
Methane	RSK-175	U	0.010	1	MG/L	09/29/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	09/23/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/23/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	09/26/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	09/26/2011	RAL
Sulfide	EPA-376.1	**0.16**	0.050	1	MG/L	09/26/2011	ARI
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	09/24/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.7**	09/24/2011	DLC
TFT	EPA-8021	**106**	09/24/2011	DLC
C25	NWTPH-DX	**109**	09/26/2011	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS SDG#:	1109101
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MBG-092011W - Batch 2120 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/20/2011	DLC

MB-092011W - Batch 2120 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	09/20/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/20/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	09/20/2011	DLC

MB-092311W - Batch 2132 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/23/2011	GAP
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/23/2011	GAP

MBLK-9292011 - Batch R74894 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	09/29/2011	CCN

MBLK-9232011 - Batch R74905 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfate	EPA-300.0	U	0.26	1	MG/L	09/23/2011	GAP

MBLK-9262011 - Batch R74906 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	09/26/2011	ARI

MBLK-9242011 - Batch R74907 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	09/24/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS SDG#:	1109101
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2120 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**76.8**			09/20/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**75.8**	**1**		09/20/2011	DLC

ALS Test Batch ID: 2120 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**94.5**			09/20/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**97.2**	**3**		09/20/2011	DLC
Benzene - BS	EPA-8021	**109**			09/20/2011	DLC
Benzene - BSD	EPA-8021	**110**	**1**		09/20/2011	DLC
Toluene - BS	EPA-8021	**105**			09/20/2011	DLC
Toluene - BSD	EPA-8021	**106**	**1**		09/20/2011	DLC
Ethylbenzene - BS	EPA-8021	**102**			09/20/2011	DLC
Ethylbenzene - BSD	EPA-8021	**102**	**0**		09/20/2011	DLC
Xylenes - BS	EPA-8021	**103**			09/20/2011	DLC
Xylenes - BSD	EPA-8021	**104**	**1**		09/20/2011	DLC

ALS Test Batch ID: 2132 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**89.8**			09/23/2011	GAP
TPH-Diesel Range - BSD	NWTPH-DX	**89.3**	**1**		09/23/2011	GAP

ALS Test Batch ID: R74894 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**113**			09/29/2011	CCN
Methane - BSD	RSK-175	**101**	**11**		09/29/2011	CCN

ALS Test Batch ID: R74905 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**116**			09/23/2011	GAP
Phosphate - BSD	EPA-300.0	**108**	**7**		09/23/2011	GAP
Sulfate - BS	EPA-300.0	**97.0**			09/23/2011	GAP
Sulfate - BSD	EPA-300.0	**97.0**	**0**		09/23/2011	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2011
		ALS SDG#:	1109101
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R74907 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**99.8**			09/24/2011	ARI

APPROVED BY

Laboratory Director

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(206) 292-9059 Seattle
(425) 356-2626 Fax
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1109101

Date 9-22-11 Page 1 Of 1

PROJECT ID:	COB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	228 E. Champion St #101 Bellingham, WA 98225
PHONE:	360 752-9571 FAX:
P.O. NUMBER:	E-MAIL:
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Dissolved Arsenic	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify) Methane	Sulfide	Sulfate	Phosphate	Dissolved Iron	Total Organic Carbon	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	9-22	9:30	WATER	1		X	X	X	X									X		X	X	X	X	X	X	11	
2. MW-2	9-22	10:30	WATER	2		X	X	X	X									X		X	X	X	X	X	X	11	
3. MW-3	9-22	11:30	WATER	3		X	X	X	X									X		X	X	X	X	X	X	11	
4. MW-4	9-22	12:40	WATER	4		X	X	X	X									X		X	X	X	X	X	X	11	
5. MW-5	9-22	1:45	WATER	5		X	X	X	X									X		X	X	X	X	X	X	11	
6. MW-6	9-22	3:30	WATER	6		X	X	X	X									X		X	X	X	X	X	X	11	
7. MW-14	9-22	2:15	WATER	7		X	X	X	X									X		X	X	X	X	X	X	11	
8.																											
9.																											
10.																											

LABORATORY COPY

SPECIAL INSTRUCTIONS: All metals samples were field filtered

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Dan Heimlyman, WES, 9-22-11, 4:20pm
   Received By:
2. Relinquished By:
   Received By: Shawn Robinson ALS 9/23/11 10:30

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

Fourth Quarter 2011 Groundwater Data

December 19, 2011

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On December 7th, 6 samples were received by our laboratory and assigned our laboratory project number 1112040. The project was identified as your COB: 210 McKenzie: Add Wells. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 15:10
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/07/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
TPH-Diesel Range	NWTPH-DX	**140**	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**4.6**	0.040	4	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**12**	0.26	1	MG/L	12/07/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**12000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.16**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**8.3**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.2**	12/07/2011	DLC
TFT	EPA-8021	**101**	12/07/2011	DLC
C25	NWTPH-DX	**102**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 14:00
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/07/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
TPH-Diesel Range	NWTPH-DX	**270**	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**12**	0.10	10	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**0.46**	0.26	1	MG/L	12/07/2011	GAP
Arsenic (Dissolved)	EPA-6020	**3.8**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**38000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.16**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.9**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**98.2**	12/07/2011	DLC
TFT	EPA-8021	**98.7**	12/07/2011	DLC
C25	NWTPH-DX	**100**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 12:25
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/07/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**1.6**	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**45**	1.3	5	MG/L	12/08/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	12/08/2011	RAL
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	12/12/2011	RAL
Chromium (Dissolved)	EPA-6020	**0.83**	0.79	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**1600**	220	1	UG/L	12/12/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**4.1**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**96.9**	12/07/2011	DLC
TFT	EPA-8021	**103**	12/07/2011	DLC
C25	NWTPH-DX	**99.0**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 11:20
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/07/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**4.6**	0.10	10	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**0.72**	0.26	1	MG/L	12/07/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	12/08/2011	RAL
Arsenic (Dissolved)	EPA-6020	**5.2**	1.8	1	UG/L	12/12/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	12/12/2011	RAL
Chromium (Dissolved)	EPA-6020	**2.4**	0.79	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**26000**	220	1	UG/L	12/12/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.22**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**8.3**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**80.9**	12/07/2011	DLC
TFT	EPA-8021	**91.5**	12/07/2011	DLC
C25	NWTPH-DX	**102**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 09:55
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/07/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/07/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/07/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**3.4**	0.050	5	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**4.6**	0.26	1	MG/L	12/07/2011	GAP
Mercury (Dissolved)	EPA-7470	U	0.20	1	UG/L	12/08/2011	RAL
Arsenic (Dissolved)	EPA-6020	**1.8**	1.8	1	UG/L	12/12/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	12/12/2011	RAL
Chromium (Dissolved)	EPA-6020	**4.3**	0.79	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**1600**	220	1	UG/L	12/12/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**7.6**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**104**	12/07/2011	DLC
TFT	EPA-8021	**99.1**	12/07/2011	DLC
C25	NWTPH-DX	**90.5**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112040
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/7/2011
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells	COLLECTION DATE:	12/6/2011 13:00
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS
Methane	RSK-175	**1.5**	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	**40**	1.3	5	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**1300**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.12**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**4.2**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	12/08/2011	DLC
TFT	EPA-8021	**97.1**	12/08/2011	DLC
C25	NWTPH-DX	**84.7**	12/07/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112040
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells		

LABORATORY BLANK RESULTS

MBG-120711W - Batch 2355 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC

MB-120711W - Batch 2355 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC

MB-120711W - Batch 2353 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS

MBLK-12152011 - Batch R75743 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	12/15/2011	CCN

MBLK-1272011 - Batch R75764 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/07/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/07/2011	GAP

MB-120811W - Batch 2352 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/08/2011	RAL
Cadmium (Dissolved)	EPA-6020	U	0.44	1	UG/L	12/08/2011	RAL
Chromium (Dissolved)	EPA-6020	U	0.79	1	UG/L	12/08/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/08/2011	RAL
Lead (Dissolved)	EPA-6020	U	0.62	1	UG/L	12/08/2011	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112040
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells		

LABORATORY BLANK RESULTS

MB-R75761 - Batch R75761 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/12/2011	ARI

MB-R75762 - Batch R75762 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/16/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112040
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2355 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**69.9**			12/08/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**77.6**	**10**		12/08/2011	DLC

ALS Test Batch ID: 2355 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**106**			12/08/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**107**	**1**		12/08/2011	DLC
Benzene - BS	EPA-8021	**101**			12/08/2011	DLC
Benzene - BSD	EPA-8021	**104**	**3**		12/08/2011	DLC
Toluene - BS	EPA-8021	**95.6**			12/08/2011	DLC
Toluene - BSD	EPA-8021	**98.5**	**3**		12/08/2011	DLC
Ethylbenzene - BS	EPA-8021	**92.8**			12/08/2011	DLC
Ethylbenzene - BSD	EPA-8021	**95.8**	**3**		12/08/2011	DLC
Xylenes - BS	EPA-8021	**93.3**			12/08/2011	DLC
Xylenes - BSD	EPA-8021	**96.1**	**3**		12/08/2011	DLC

ALS Test Batch ID: 2353 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**93.0**			12/07/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**92.7**	**0**		12/07/2011	EBS

ALS Test Batch ID: R75743 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**98.8**			12/15/2011	CCN
Methane - BSD	RSK-175	**99.0**	**0**		12/15/2011	CCN

ALS Test Batch ID: R75764 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**115**			12/07/2011	GAP
Phosphate - BSD	EPA-300.0	**109**	**5**		12/07/2011	GAP
Sulfate - BS	EPA-300.0	**90.0**			12/07/2011	GAP
Sulfate - BSD	EPA-300.0	**96.0**	**6**		12/07/2011	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112040
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie: Add Wells		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2352 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**95.0**			12/08/2011	RAL
Arsenic (Dissolved) - BSD	EPA-6020	**96.1**	**1**		12/08/2011	RAL
Cadmium (Dissolved) - BS	EPA-6020	**95.0**			12/08/2011	RAL
Cadmium (Dissolved) - BSD	EPA-6020	**96.4**	**1**		12/08/2011	RAL
Chromium (Dissolved) - BS	EPA-6020	**94.0**			12/08/2011	RAL
Chromium (Dissolved) - BSD	EPA-6020	**95.7**	**2**		12/08/2011	RAL
Iron (Dissolved) - BS	EPA-6020	**94.9**			12/08/2011	RAL
Iron (Dissolved) - BSD	EPA-6020	**95.9**	**1**		12/08/2011	RAL
Lead (Dissolved) - BS	EPA-6020	**93.1**			12/08/2011	RAL
Lead (Dissolved) - BSD	EPA-6020	**94.2**	**1**		12/08/2011	RAL

ALS Test Batch ID: R75762 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**106**			12/16/2011	ARI

APPROVED BY

Laboratory Director

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(425) 356-2626 Fax
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1112040

Date 12-5-11 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie : Add Wells
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E. Champion St #101
Bellingham, WA 98225
PHONE: (360) 752-9571 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: Same As Above
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED / OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☒ RCRA-8 ☐ Pri Pol ☐ TAL ☐ (Dissolved)	Metals Other (Specify) Arsenic (Dissolved)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Methane	Sulfide	Sulfate	Phosphate	Dissolved Iron	Total Organic Carbon		NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-8	12-5-11	3:10	Water	1		X	X	X	X									X		X	X	X	X	X	X		11	
2. MW-9		2:00		2		X	X	X	X									X		X	X	X	X	X	X		11	
3. MW-10		12:25		3		X	X	X	X								X	X		X	X	X	X	X	X		11	
4. MW-11		11:20		4		X	X	X	X								X	X		X	X	X	X	X	X		11	
5. MW-12		9:55		5		X	X	X	X								X	X		X	X	X	X	X	X		11	
6. MW-13		1:00		6		X	X	X	X									X		X	X	X	X	X	X		11	
7.																												
8.																												
9.																												
10.																												

LABORATORY COPY

SPECIAL INSTRUCTIONS: All Metal Samples were Field Filtered.

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: 1 Dan Nay/k, WES, 12-5-11, 4:00
Received By:
2. Relinquished By:
Received By: Shawn Robson ALS 12/5/11 10:35

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: (X) Standard | 5 | 3 | 2 | 1 | SAME DAY
Fuels & Hydrocarbon Analysis: (X) Standard | 3 | 1 | SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

December 19, 2011

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On December 8th, 6 samples were received by our laboratory and assigned our laboratory project number 1112053. The project was identified as your COB: 210 McKenzie Ave. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 09:00
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	**1.0**	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**23**	1.3	5	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	**7.3**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**27000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**3.5**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**118**	12/08/2011	DLC
TFT	EPA-8021	**113**	12/08/2011	DLC
C25	NWTPH-DX	**104**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 10:00
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	**200**	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	**9.7**	0.10	10	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**12**	0.26	1	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	**4.0**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**29000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.20**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**6.0**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**98.1**	12/08/2011	DLC
TFT	EPA-8021	**99.8**	12/08/2011	DLC
C25	NWTPH-DX	**105**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 11:30
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	**65**	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	**1.1**	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	**3.7**	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	**360**	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	**14**	1.0	100	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**11**	0.26	1	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	**2.3**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**32000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.14**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**11**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**103**	12/08/2011	DLC
TFT	EPA-8021	**105**	12/08/2011	DLC
C25	NWTPH-DX	**112**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline and weathered diesel.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 14:10
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**5.5**	0.26	1	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**2.8**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**2.8**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**105**	12/08/2011	DLC
TFT	EPA-8021	**113**	12/08/2011	DLC
C25	NWTPH-DX	**104**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 12:45
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**5.2**	0.26	1	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**2.8**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**2.8**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**116**	12/08/2011	DLC
TFT	EPA-8021	**108**	12/08/2011	DLC
C25	NWTPH-DX	**82.9**	12/09/2011	EBS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112053
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/8/2011
CLIENT PROJECT:	COB: 210 McKenzie Ave	COLLECTION DATE:	12/7/2011 13:20
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	U	0.010	1	MG/L	12/15/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	**1.1**	0.26	1	MG/L	12/08/2011	GAP
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.12**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	12/08/2011	DLC
TFT	EPA-8021	**98.0**	12/08/2011	DLC
C25	NWTPH-DX	**87.8**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112053
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Ave		

LABORATORY BLANK RESULTS

MBG-120711W - Batch 2355 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC

MB-120711W - Batch 2355 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC

MB-120811W - Batch 2354 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS

MBLK-12152011 - Batch R75743 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	12/15/2011	CCN

MBLK-1282011 - Batch R75768 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/08/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/08/2011	GAP

MB-121211W - Batch 2363 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/12/2011	RAL

MB-R75770 - Batch R75770 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/12/2011	ARI

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112053
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Ave		

LABORATORY BLANK RESULTS

MB-R75770 - Batch R75770 - Water by EPA-376.1

MB-R75771 - Batch R75771 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/16/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112053
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Ave		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2355 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**69.9**			12/08/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**77.6**	**10**		12/08/2011	DLC

ALS Test Batch ID: 2355 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**106**			12/08/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**107**	**1**		12/08/2011	DLC
Benzene - BS	EPA-8021	**101**			12/08/2011	DLC
Benzene - BSD	EPA-8021	**104**	**3**		12/08/2011	DLC
Toluene - BS	EPA-8021	**95.6**			12/08/2011	DLC
Toluene - BSD	EPA-8021	**98.5**	**3**		12/08/2011	DLC
Ethylbenzene - BS	EPA-8021	**92.8**			12/08/2011	DLC
Ethylbenzene - BSD	EPA-8021	**95.8**	**3**		12/08/2011	DLC
Xylenes - BS	EPA-8021	**93.3**			12/08/2011	DLC
Xylenes - BSD	EPA-8021	**96.1**	**3**		12/08/2011	DLC

ALS Test Batch ID: 2354 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**92.0**			12/08/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**93.6**	**2**		12/08/2011	EBS

ALS Test Batch ID: R75743 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**98.8**			12/15/2011	CCN
Methane - BSD	RSK-175	**99.0**	**0**		12/15/2011	CCN

ALS Test Batch ID: R75768 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**109**			12/08/2011	GAP
Phosphate - BSD	EPA-300.0	**118**	**8**		12/08/2011	GAP
Sulfate - BS	EPA-300.0	**98.0**			12/08/2011	GAP
Sulfate - BSD	EPA-300.0	**87.0**	**12**		12/08/2011	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112053
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie Ave		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2363 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**89.2**			12/12/2011	RAL
Arsenic (Dissolved) - BSD	EPA-6020	**90.5**	**1**		12/12/2011	RAL
Iron (Dissolved) - BS	EPA-6020	**89.0**			12/12/2011	RAL
Iron (Dissolved) - BSD	EPA-6020	**90.4**	**2**		12/12/2011	RAL

ALS Test Batch ID: R75771 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**106**			12/16/2011	ARI

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1112053

Date 12-7-11 Page 1 Of 1

PROJECT ID: COB: 210 MCKENZIE
REPORT TO COMPANY: WHATCOM ENVIRONMENTAL SERVICES
PROJECT MANAGER: HAROLD CASHMAN
ADDRESS: 228 E. CHAMPION ST. #101
BELLINGHAM, WA 98225
PHONE: (360) 752-9571 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: SAME AS ABOVE
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED / OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) DISSOLVED ARSENIC	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	METHANE	SULFIDE	SULFATE	PHOSPHATE	DISSOLVED IRON	TOTAL ORGANIC CARBON		NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	12-7-11	9:00	WATER	1		X	X	X	X									X		X	X	X	X	X	X		11	
2. MW-2		10:00		2		X	X	X	X									X		X	X	X	X	X	X		11	
3. MW-3		11:30		3		X	X	X	X									X		X	X	X	X	X	X		11	
4. MW-4		2:10		4		X	X	X	X									X		X	X	X	X	X	X		11	
5. MW-5		12:45		5		X	X	X	X									X		X	X	X	X	X	X		11	
6. MW-14		1:20		6		X	X	X	X									X		X	X	X	X	X	X		11	
7.																									+			
8.																												
9.																												
10.																												

LABORATORY COPY

SPECIAL INSTRUCTIONS: METAL SAMPLES WERE FILTERED IN THE FIELD

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [illegible], WES, 12-7-11, 3:45
Received By:
2. Relinquished By:
Received By: Shawn Robertson ALS 12/8/11 9:35

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: [X] Standard [5] [3] [2] [1] [SAME DAY]
Fuels & Hydrocarbon Analysis: [X] Standard [3] [1] [SAME DAY]
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

December 19, 2011

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On December 9th, 2 samples were received by our laboratory and assigned our laboratory project number 1112070. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112070
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/9/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	12/8/2011 10:00
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/09/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/09/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/09/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	**1.5**	0.010	1	MG/L	12/16/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/09/2011	GAP
Sulfate	EPA-300.0	**17**	0.26	1	MG/L	12/09/2011	GAP
Arsenic (Dissolved)	EPA-6020	**6.8**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**14000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.30**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**7.5**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**104**	12/09/2011	DLC
TFT	EPA-8021	**97.5**	12/09/2011	DLC
C25	NWTPH-DX	**81.2**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS JOB#:	1112070
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/9/2011
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	12/8/2011 11:00
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/09/2011	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/09/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/09/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/09/2011	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/09/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/09/2011	EBS
Methane	RSK-175	**2.7**	0.010	1	MG/L	12/16/2011	CCN
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/09/2011	GAP
Sulfate	EPA-300.0	**3.0**	0.26	1	MG/L	12/09/2011	GAP
Arsenic (Dissolved)	EPA-6020	**8.5**	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	**35000**	220	1	UG/L	12/12/2011	RAL
Sulfide	EPA-376.1	**0.30**	0.050	1	MG/L	12/12/2011	ARI
Total Organic Carbon (TOC)	SM5310B	**9.4**	0.25	1	MG/L	12/16/2011	ARI

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.5**	12/09/2011	DLC
TFT	EPA-8021	**95.1**	12/09/2011	DLC
C25	NWTPH-DX	**81.5**	12/09/2011	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112070
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MBG-120811W - Batch 2361 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/08/2011	DLC

MB-120811W - Batch 2361 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/08/2011	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	12/08/2011	DLC

MB-120711W - Batch 2353 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/07/2011	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/07/2011	EBS

MBLK-12162011 - Batch R75777 - Water by RSK-175

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methane	RSK-175	U	0.010	1	MG/L	12/16/2011	CCN

MBLK-1292011 - Batch R75778 - Water by EPA-300.0

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phosphate	EPA-300.0	U	0.29	1	MG/L	12/09/2011	GAP
Sulfate	EPA-300.0	U	0.26	1	MG/L	12/09/2011	GAP

MB-121211W - Batch 2363 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.8	1	UG/L	12/12/2011	RAL
Iron (Dissolved)	EPA-6020	U	220	1	UG/L	12/12/2011	RAL

MB-R75775 - Batch R75775 - Water by EPA-376.1

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Sulfide	EPA-376.1	U	0.050	1	MG/L	12/12/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112070
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-R75775 - Batch R75775 - Water by EPA-376.1

MB-R75776 - Batch R75776 - Water by SM5310B

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC)	SM5310B	U	0.25	1	MG/L	12/16/2011	ARI

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112070
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2361 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**79.6**			12/09/2011	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**80.7**	**0**		12/09/2011	DLC

ALS Test Batch ID: 2361 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**103**			12/08/2011	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**105**	**1**		12/08/2011	DLC
Benzene - BS	EPA-8021	**99.9**			12/08/2011	DLC
Benzene - BSD	EPA-8021	**101**	**1**		12/08/2011	DLC
Toluene - BS	EPA-8021	**94.8**			12/08/2011	DLC
Toluene - BSD	EPA-8021	**95.2**	**1**		12/08/2011	DLC
Ethylbenzene - BS	EPA-8021	**91.8**			12/08/2011	DLC
Ethylbenzene - BSD	EPA-8021	**92.4**	**1**		12/08/2011	DLC
Xylenes - BS	EPA-8021	**92.4**			12/08/2011	DLC
Xylenes - BSD	EPA-8021	**93.0**	**1**		12/08/2011	DLC

ALS Test Batch ID: 2353 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**93.0**			12/07/2011	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**92.7**	**0**		12/07/2011	EBS

ALS Test Batch ID: R75777 - Water by RSK-175

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methane - BS	RSK-175	**100**			12/16/2011	CCN
Methane - BSD	RSK-175	**99.3**	**1**		12/16/2011	CCN

ALS Test Batch ID: R75778 - Water by EPA-300.0

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Phosphate - BS	EPA-300.0	**117**			12/09/2011	GAP
Phosphate - BSD	EPA-300.0	**120**	**3**		12/09/2011	GAP
Sulfate - BS	EPA-300.0	**98.0**			12/09/2011	GAP
Sulfate - BSD	EPA-300.0	**104**	**6**		12/09/2011	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/19/2011
		ALS SDG#:	1112070
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2363 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**89.2**			12/12/2011	RAL
Arsenic (Dissolved) - BSD	EPA-6020	**90.5**	**1**		12/12/2011	RAL
Iron (Dissolved) - BS	EPA-6020	**89.0**			12/12/2011	RAL
Iron (Dissolved) - BSD	EPA-6020	**90.4**	**2**		12/12/2011	RAL

ALS Test Batch ID: R75776 - Water by SM5310B

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Total Organic Carbon (TOC) - BS	SM5310B	**106**			12/16/2011	ARI

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): 1112070

Date 12-8-11 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Hatcold Cashman
ADDRESS: 228 E. Champion St. #101
Bellingham, WA 98225
PHONE: (360) 752-9571 FAX:
E-MAIL:
P.O. NUMBER:
INVOICE TO COMPANY: Same As Above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-6	12-8-11	10:00	Water	1
2. MW-7	12-8-11	11:00	Water	2
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Dissolved Arsenic	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐
	X	X	X	X									X	
	X	X	X	X									X	

OTHER (Specify)

Methane	Sulfide	Sulfate	Phosphate	Dissolved Iron	Total Organic Carbon		NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
X	X	X	X	X	X		11	
X	X	X	X	X	X		11	

LABORATORY COPY

SPECIAL INSTRUCTIONS: All Metals Samples Were Filtered In The Field.

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: Dan Ayl; WES, 12-8-11, 1:00
Received By:
2. Relinquished By:
Received By: Shawn Robinson ALS 12/9/11 9:40

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: [X] 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: [X] 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

2012 GROUNDWATER MONITORING REPORT
210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
(FSID# 151016 / VCP# NW2179)

prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, Washington 98229

December 31, 2012

whatcom ENVIRONMENTAL

soil | water | air
compliance consulting

228 East Champion Street, Suite 101, Bellingham, WA 98225
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2012 GROUNDWATER MONITORING REPORT
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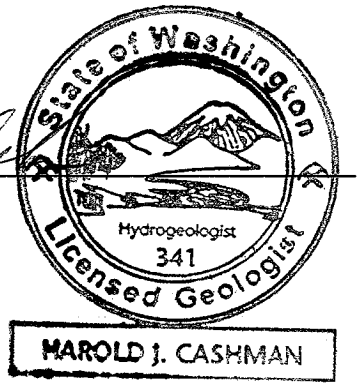
Prepared for:

City of Bellingham
2221 Pacific Street
Bellingham, WA 98229

Prepared by:

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, Washington 98225

December 31, 2012



Harold Cashman
Project Manager

Thomas Davis
QA/QC Reviewer

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EXECUTIVE SUMMARY

This report documents the 2012 semiannual groundwater monitoring completed at 210 McKenzie Avenue in Bellingham, Washington. The subject property is owned by the City of Bellingham and is located adjacent to the Post Point Wastewater Treatment Plant. The site has been assigned a Facility Site ID Number of 151016 by the Washington Department of Ecology. The site was entered into the Voluntary Cleanup Program (VCP) in 2009 and assigned VCP Number NW2179.

The groundwater monitoring system at the site consists of twelve groundwater monitoring wells. Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds. Dissolved arsenic was detected in 2012 in groundwater in wells MW-1, MW-2, MW-6, MW-7, and MW-11 at concentrations which exceeded the Model Toxics Control Act (MTCA) Method A target cleanup level for arsenic. The arsenic detections could be the result of past uses of the property or they could be the result of natural causes.

1.0 INTRODUCTION

This report summarizes the semiannual groundwater monitoring conducted in 2012 at 210 McKenzie Avenue in Bellingham, Washington. The location of the subject property is shown on Figure 1. The regulatory driver for the remedial investigation of the property is the MTCA Cleanup Regulation Chapter 173-340 (Ecology, 2007). The site is being investigated and remediated under the Voluntary Cleanup Program (VCP# NW2179).

The scope of the investigation consists of the semiannual collection and analyses of groundwater samples from twelve groundwater monitoring wells installed at the site. The current monitoring well system consists of wells MW-1 through MW-6 which were installed in 2007, wells MW-7 through MW-9 installed in 2010, and MW-10 through MW-12 installed in 2011. The wells are screened from approximately 5 to 15 feet below grade. The well locations are shown on Figure 2.

Historically, dissolved arsenic has been detected at concentrations exceeding the MTCA Method A target cleanup level in seven of the twelve monitoring wells installed in a zone of perched groundwater at the site. Based on the results of historical data collected since 2009 and an arsenic speciation study conducted in 2010, the source of the arsenic detected in wells at the site is presumed to be mineral oxides in the aquifer matrix. The reducing conditions documented in the perched groundwater result in the desorption of arsenic from iron oxides. Ecology agreed with these findings in a VCP Opinion letter dated April 3, 2012.

This report includes a description of groundwater monitoring work completed at the site in 2012 and supplements data presented in reports previously submitted to Ecology, including: *Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated February 11, 2009; *2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated March 15, 2010; *2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated March 18, 2011; and *2011 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016)* dated January 12, 2012.

2.0 GROUNDWATER MONITORING

Groundwater monitoring continued at 210 McKenzie Avenue during 2012 in order to document groundwater quality at the site. Groundwater samples were collected on a semiannual schedule (June and November). Due to the placement of structures and materials associated with the plant upgrade project currently underway at the Post Point wastewater treatment plant, groundwater samples were not collected from wells MW-4 and MW-5 during the November sampling event.

2.1 GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected for laboratory analysis on June 13-14 and November 14-15, 2012. A low-flow sampling technique, recommended and approved by the U.S. Environmental Protection Agency (USEPA, 1998), was used to sample each monitoring well. The low-flow sampling technique minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. A YSI Model 556 multi-probe meter was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected when the water chemistry parameters stabilized.

Groundwater samples were collected in sample bottles provided by the analytical laboratory and stored on ice in a cooler immediately after collection. The sample containers included a sample label which indicated the sample identification, the sampling date and time, the sampler’s name, and the analysis requested. Groundwater samples were identified by the monitoring well identification number. One duplicate sample and one equipment blank sample were also collected during each sampling event. Common industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed.

2.2 GROUNDWATER FLOW DIRECTION

Depth-to-water (DTW) in each well was measured from a marked location on the top of the PVC well casing with an electronic well probe and recorded in the field notebook. DTW measurements were then converted to groundwater elevation data in order to calculate the groundwater flow direction and surface gradient at the site.

The June 2012 data indicate that the groundwater flows in a northwesterly direction on the western portion of the property and in a northeasterly direction on the eastern portion of the property. During the November 2012 sampling event, groundwater flow direction was only determined for the western portion of the property due to limited well access. The groundwater flow directions and gradients observed in 2012 are consistent with historical observations. The groundwater surface contour maps for each sampling event are included in Appendix A.

2.3 GROUNDWATER SAMPLE RESULTS

During the June 2012 groundwater sampling event, wells which have historically contained detectable concentrations of total petroleum hydrocarbons (TPH) and wells with fewer than 4 quarters of data were analyzed for gasoline, diesel, and lube-oil range TPH using Methods NWTPH-Gx and NWTPH-Dx, respectively; as well as benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) using EPA Method 8021. Wells with fewer than 4 quarters of data were also analyzed for dissolved mercury using EPA Method 7470 and dissolved cadmium, chromium, and lead using EPA Method 6020. All wells were analyzed for dissolved arsenic using EPA Method 6020 in June and November.

The samples were analyzed at ALS Laboratory Group in Everett, Washington. ALS is accredited by the Washington State Department of Ecology. All samples were analyzed within the prescribed holding times, and the equipment blank and duplicate sample results were within acceptable limits.

Groundwater analytical data for each monitoring well sample, duplicate samples, and equipment blank samples are summarized in Table 1, Table 2, and Table 3. The original laboratory analytical data reports are provided in Appendix B.

2.3.1 Total Petroleum Hydrocarbons

Limited TPH analysis was conducted during the June 2012 sampling event. Low concentrations of diesel range TPH were detected in wells MW-3, MW-8 and MW-9 which did not exceed the MTCA Method A target cleanup level. There were no other detections of gasoline or diesel range TPH, BTEX constituents, or MTBE in the groundwater samples collected and analyzed for petroleum constituents in June 2012. The petroleum constituent analytical results for all samples collected in 2012 are summarized in Table 1. Sampling for petroleum constituents was discontinued in November 2012.

2.3.2 Dissolved Metals

Dissolved arsenic was detected at concentrations exceeding the MTCA Method A cleanup level in wells MW-1, MW-2, MW-6, MW-7, and MW-11. Arsenic analytical results are summarized in Table 2.

Dissolved mercury, cadmium, chromium, and lead were not detected at concentrations which exceeded the MTCA Method A target cleanup levels. Metals analytical results are summarized in Table 3. Sampling for mercury, cadmium, chromium, and lead was discontinued in November 2012.

3.0 CONCLUSIONS

The groundwater monitoring well network at 210 McKenzie Avenue in Bellingham, Washington was sampled in June and November of 2012. Wells MW-4 and MW-5 were not accessible during the November sampling event and were not sampled.

Six years of groundwater monitoring have revealed that dissolved arsenic is the main constituent of concern in groundwater at the site.

Laboratory analytical data indicates that groundwater in the vicinity of the monitoring wells has not been adversely impacted by petroleum compounds or BTEX constituents. During 2012 groundwater in the vicinity of monitoring wells MW-1, MW-2, MW-3, MW-6, MW-7, and MW-11 contained total dissolved arsenic at concentrations which exceed the MTCA Method A target cleanup level for arsenic. All other wells had detectable concentrations of dissolved arsenic that did not exceed the MTCA Method A cleanup level.

A Remedial Investigation (RI) and Feasibility Study (FS) report has been prepared for the site per the requirements outlined in WAC 173-340-350. The document provides a concise summary of the investigations and remedial actions that have been completed at the site since 1994.

Semiannual groundwater monitoring for dissolved arsenic will continue in 2013.

4.0 LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by Whatcom Environmental Services is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the subject property.

The interpretation of subsurface soil and groundwater conditions is based on field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the subject property. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. Whatcom Environmental Services prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

5.0 REFERENCES

U.S. Environmental Protection Agency, Region 2. 1998. Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling, GW Sampling SOP Final, March 16, 1998.

Washington State Department of Ecology (Ecology). 2001. Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC. Publication No. 94-06. November 2007.

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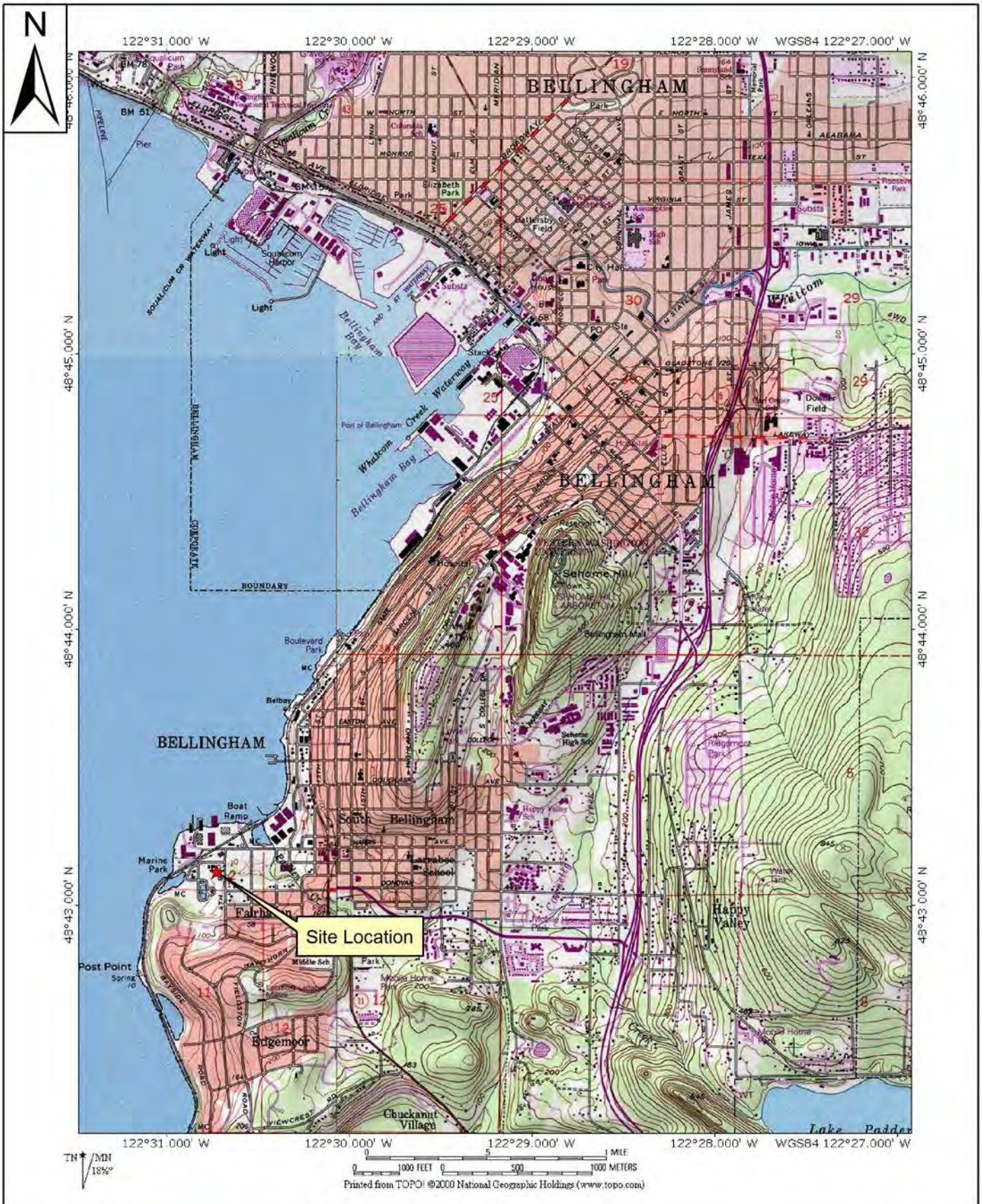
Whatcom Environmental Services. March 18, 2011. 2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016).

Whatcom Environmental Services. January 12, 2012. 2011 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016 / VCP# NW2179).



Prepared for:	Prepared by:	Site Location Map	
City of Bellingham	nwhatcom ENVIRONMENTAL	210 McKenzie Remediation 1/3/12	Figure 1

All data are approximate and should be used for relative location reference only.

2008 Aerial Photograph

Prepared for:

City of Bellingham

Prepared by:

whatcom ENVIRONMENTAL

Monitoring Well Location Map

210 McKenzie Remediation

12/28/12

Figure 2

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-1								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-2								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/04/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 Dup.	ND(<50)	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	200	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-3								
08/02/07	ND(<50)	150	ND(<250)	3	ND(<2)	3	ND	ND(<2)
12/06/07	64	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	ND(<50)	ND(<130)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08	77	ND(<130)	ND(<250)	5	ND(<2)	7	ND	ND(<2)
03/04/09	58	180	ND(<250)	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09	ND(<50)	150	ND(<250)	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 Dup.	ND(<50)	160	ND(<250)	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	76	170	ND(<250)	3.6	7.1	6.1	8.3	ND(<3)
11/18/09	ND(<50)	250	ND(<250)	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	190	ND(<250)	2.2	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	210	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	370	ND(<250)	1.9	ND(<1)	2.9	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	1.5	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	1.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	1.9	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	150	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	65	360	ND(<250)	1.1	ND(<1)	ND(<1)	3.7	ND(<3)
06/14/12	ND(<50)	190	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
6/14/2012 Dup.	ND(<50)	130	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-4								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	6.4
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-5								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	160	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-6								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08 Dup.	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-7								
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<250)	ND(<130)	ND(<250)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<15)	ND(<15)
09/08/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
3/22/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	NA	NA	NA	NA	NA	NA	NA
MW-8								
06/24/10	ND(<50)	240	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	250	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	150	ND(<250)	NA	NA	NA	NA	NA

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-9								
06/24/10	ND(<50)	480	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 Dup.	ND(<50)	**530**	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	370	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	320	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	55	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11 Dup.	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	270	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	260	ND(<250)	NA	NA	NA	NA	NA
MW-10								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
MW-11								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-12								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 1. Groundwater Sample Analytical Data - TPH/BTEX

Well ID	TPH-Gx Volatile Range	TPH-Dx Diesel Range	TPH-Dx Lube Oil Range	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:								
MTCA Method-A (µg/L)	800/1,000*	500	500	5	1,000	700	1,000	20
Equipment Blank								
08/02/07 (MW-8)	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08 (MW-8)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<50)	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11 (MW-15)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

* - Cleanup level dependent on BTEX concentrations

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to installation of additional monitoring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	0	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	22,000	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	21,000	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	0	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3.0
03/18/10	1.9	21,000	4,400	16,600	1.5	ND(<0.29)	16	ND(<0.05)	4.1
06/23/10	3.6	25,000	4,200	20,800	0.68	ND(<0.29)	13	ND(<0.05)	4.5
09/09/10	**6.3**	32,000	4,000	28,000	2.8	ND(<0.29)	0.69	ND(<0.05)	5.5
12/02/10	3.5	27,000	4,400	22,600	0.62	ND(<0.29)	14	ND(<0.05)	4.0
03/23/11	**5.4**	28,000	5,000	23,000	0.9	ND(<0.29)	9	ND(<0.05)	4.0
06/16/11	**6.5**	26,000	5,500	20,500	0.74	ND(<0.29)	6	ND(<0.05)	4.6
09/22/11	**11**	40,000	6,600	33,400	3.40	ND(<0.29)	ND(<0.26)	0.1	6.4
12/07/11	**7.3**	27,000	4,600	22,400	1.00	ND(<0.29)	7.3	0.14	3.5
06/14/12	**7.3**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**6.9**	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	4.3								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	27,000	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	27,000	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	24,000	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	25,000	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	24,000	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
03/18/10	**7.5**	27,000	6,000	21,000	13	ND(<0.29)	1.6	ND(<0.05)	5.4
03/18/10 Dup.	**9.1**	26,000	6,000	20,000	4.4	ND(<0.29)	1.9	ND(<0.05)	5.3
06/23/10	**10**	24,000	4,400	19,600	3.9	ND(<0.29)	2.2	ND(<0.05)	5.5
09/09/10	**22**	22,000	4,400	17,600	6.9	ND(<0.29)	0.73	ND(<0.05)	5.4
12/02/10	**6.5**	28,000	7,000	21,000	6.1	ND(<0.29)	3.3	ND(<0.05)	6.1
03/23/11	**7.8**	27,000	5,000	22,000	3.4	ND(<0.29)	1.8	ND(<0.05)	4.9
06/16/11	**10**	24,000	6,000	18,000	5.3	ND(<0.29)	0.78	ND(<0.05)	5.2
09/22/11	**15**	25,000	6,800	18,200	5.2	ND(<0.29)	0.8	0.08	6.1
12/07/11	4	29,000	4,800	24,200	9.70	ND(<0.29)	12	0.2	6.0
06/14/12	**10**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**14**	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	**11.7**								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-3									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	37,000	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09	ND(<5)	35,000	7,600	27,400	16	ND(<0.4)	1.3	0.08	13
06/04/09 Dup.	ND(<5)	35,000	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09	1.7	40,000	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09	2.3	35,000	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
03/18/10	ND(<1.8)	34,000	5,400	28,600	7.8	ND(<0.29)	3.4	ND(<0.05)	11
06/23/10	2.3	37,000	5,400	31,600	13	ND(<0.29)	3.0	ND(<0.05)	14
09/09/10	**5.7**	35,000	5,000	30,000	8.8	8	27.0	ND(<0.05)	12
12/02/10	ND(<1.8)	25,000	5,600	19,400	10	ND(<0.29)	18.0	ND(<0.05)	10
03/23/11	3.6	39,000	7,000	32,000	10	ND(<0.29)	2	ND(<0.05)	13
06/16/11	3.9	35,000	5,600	29,400	11	ND(<0.29)	ND(<0.26)	ND(<0.05)	13
09/22/11	**8.4**	45,000	5,600	39,400	7	ND(<0.29)	16	0.14	18
12/07/11	2.3	32,000	4,200	27,800	14	ND(<0.29)	11	0.14	11
06/14/12	2.6	NA	NA	NA	NA	NA	NA	NA	NA
6/14/12 Dup.	2.8	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	3.0	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	2.8								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	23	NA	3.4
06/04/09	ND(<5)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
03/18/10	ND(<1.8)	ND(<220)	0	ND	0.07	ND(<0.29)	20	ND(<0.05)	2.6
06/23/10	ND(<1.8)	ND(<220)	0	ND	0.38	ND(<0.29)	16	ND(<0.05)	2.5
09/09/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	8	26	ND(<0.05)	2.5
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	73	ND(<0.05)	3.2
03/23/11	2.5	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	12	ND(<0.05)	1.8
06/16/11	1.9	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.8	ND(<0.05)	2.0
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.9	ND(<0.05)	3.2
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.5	2.8	2.8
06/14/12	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities.*								
Average Concentration**	1.5								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	0	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
03/18/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.7	ND(<0.05)	2.1
06/23/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.6	ND(<0.05)	2.1
09/09/10	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.1	ND(<0.05)	2.0
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.0	ND(<0.05)	4.8
03/23/11	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.8	ND(<0.05)	2.2
06/16/11	3.0	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	2.3	ND(<0.05)	1.9
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.8	0.14	2.5
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.2	2.8	2.8
06/13/12	1.1	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities.*								
Average Concentration**	1.7								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	14,000	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	16,000	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	21,000	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
03/18/10	**6.0**	12,000	10,000	2,000	3.2	ND(<0.29)	5.2	ND(<0.05)	8
06/24/10	**7.1**	19,000	4,000	15,000	4.9	ND(<0.29)	6.9	ND(<0.05)	10
09/09/10	**15**	26,000	4,600	21,400	6.7	ND(<0.29)	2.6	ND(<0.05)	11
12/02/10	**6.5**	18,000	5,000	13,000	7.1	ND(<0.29)	6.9	ND(<0.05)	10
03/23/11	**8.0**	16,000	5,000	11,000	2.4	ND(<0.29)	2.4	ND(<0.05)	9
06/16/11	**8.8**	24,000	5,200	18,800	7.8	ND(<0.29)	4.6	ND(<0.05)	10
06/16/11 Dup.	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/22/11	**15**	27,000	5,000	22,000	1.8	ND(<0.29)	ND(<0.26)	0.1	11
12/08/11	**6.8**	14,000	3,800	10,200	1.5	ND(<0.29)	17	0.3	7.5
06/13/12	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	4.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12 Dup.	4.4	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	**8.1**								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-7									
06/24/10	**6.6**	25,000	3,400	21,600	3.7	ND(<0.29)	1.2	ND(<0.05)	11.0
09/08/10	**5.3**	29,000	5,000	24,000	3.7	ND(<0.29)	1.0	ND(<0.05)	11.0
09/08/10 Dup.	4.9	28,000	NA	NA	4.0	ND(<0.29)	0.28	ND(<0.05)	12.0
12/01/10	**7.6**	33,000	6,400	26,600	5.2	ND(<0.29)	0.67	ND(<0.05)	11.0
03/22/11	**7.1**	28,000	5,400	22,600	6.2	ND(<0.29)	1.4	ND(<0.05)	10.0
03/22/11 Dup.	**6.8**	27,000	5,400	21,600	2.9	ND(<0.29)	0.43	ND(<0.05)	10.0
06/15/11	**7.6**	23,000	5,000	18,000	5.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	10.0
09/21/11	**8.7**	35,000	5,800	29,200	4.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.9
12/08/11	**8.5**	35,000	5,500	29,500	2.7	ND(<0.29)	3	0.3	9.4
06/13/12	**9.7**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**12**	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	**8.1**								
MW-8									
06/24/10	2.7	34,000	5,400	28,600	4.7	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.9
09/08/10	2.5	33,000	3,800	29,200	9.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.7
12/01/10	2.5	29,000	5,400	23,600	5.9	ND(<0.29)	2.3	ND(<0.05)	8.5
12/01/10 Dup.	2.5	29,000	NA	NA	3.4	ND(<0.29)	2.0	ND(<0.05)	8.6
03/22/11	2.7	18,000	5,600	12,400	5.3	ND(<0.29)	0.75	ND(<0.05)	6.8
06/15/11	3.3	31,000	8,000	23,000	8.3	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.9
09/21/11	2.0	30,000	5,700	24,300	10.0	ND(<0.29)	0.27	0.14	7.5
12/06/11	ND(<1.8)	12,000	3,800	8,200	4.6	ND(<0.29)	12	0.16	8.3
06/13/12	1.9	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	1.4	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	2.2								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-9									
06/24/10	3.8	28,000	4,000	24,000	8.5	ND(<0.29)	1.5	ND(<0.05)	7.1
06/24/10 Dup.	3.7	28,000	NA	NA	13.0	ND(<0.29)	1.2	ND(<0.05)	7.1
9/8/2010	2.8	25,000	3,000	22,000	15.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.5
12/1/2010	3.0	30,000	4,000	26,000	8.8	ND(<0.29)	0.48	ND(<0.05)	6.5
03/22/11	**5.5**	36,000	4,400	31,600	4.5	ND(<0.29)	0.82	ND(<0.05)	5.3
06/15/11	**6.2**	32,000	5,500	26,500	11.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.1
06/15/11 Dup.	**5.9**	32,000	NA	NA	13.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.3
09/21/11	3.0	26,000	4,800	21,200	7.7	ND(<0.29)	ND(<0.26)	0.10	7.1
12/06/11	3.8	38,000	5,500	32,500	12	ND(<0.29)	0.46	0.16	6.9
06/13/12	4.6	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	2.9	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	4.0								
MW-10									
06/15/11	2.1	590	700	0	0.3	ND(<0.29)	2.0	ND(<0.05)	3.6
09/21/11	ND(<1.8)	2,300	2,400	0	0.8	ND(<0.29)	15.0	0.14	3.4
12/06/11	ND(<1.8)	1,600	1,800	0	1.6	ND(<0.29)	45	0.14	4.1
12/06/11 Dup.	ND(<1.8)	1,300	NA	NA	4.6	ND(<0.29)	40	0.12	4.2
06/13/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	2.5	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	1.6								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic*	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060 & 6021	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels: MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
MW-11									
06/15/11	4.3	13,000	5,200	7,800	3.8	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
09/21/11	**7.5**	39,000	6,500	32,500	2.9	ND(<0.29)	1.7	ND(<0.05)	12.0
12/06/11	**5.2**	26,000	5,400	20,600	4.6	ND(<0.29)	0.72	0.22	8.3
06/13/12	**6.2**	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	**6.2**								
MW-12									
06/15/11	3.4	3,700	400	3,300	2.8	ND(<0.29)	3.7	ND(<0.05)	10.0
09/21/11	ND(<1.8)	5,400	3,600	1,800	3.2	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.5
9/21/11 Dup.	ND(<1.8)	5,500	3,600	1,900	2.9	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
12/06/11	1.8	1,600	1,900	0	3.4	ND(<0.29)	4.6	0.14	7.6
06/13/12	1.8	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Average Concentration**	1.9								

Table 2. Groundwater Sample Analytical Data - Arsenic and Related Compounds

Well ID	Arsenic* EPA-7060 & 6021	Total Dissolved Iron* EPA-6010 EPA 200.8 (in 2010)	Ferrous Iron (Fe^{2+})* Field Test	Ferric Iron (Fe^{3+}) =Total - Ferrous	Methane RSK-175	Phosphate EPA-300.0	Sulfate EPA-300.0	Sulfide EPA-376.1	TOC SM5310B
units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Clean-up Levels:									
MTCA Method-A (µg/L)	5	-	-	-	-	-	-	-	-
Equipment Blank									
08/02/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<5)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09 (MW-8)	ND(<5)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09 (MW-8)	ND(<1)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)
03/18/10 (MW-8)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.81	ND(<0.05)	2.2
06/24/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	0.26	ND(<0.29)	ND(<0.26)	ND(<0.05)	0.27
09/08/10 (MW-11)	ND(<1.8)	240	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
12/01/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
03/22/11 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.71	ND(<0.05)	ND(<0.25)
06/16/11 (MW-15)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
09/22/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	0.16	ND(<0.25)
12/07/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	1.1	0.12	ND(<0.25)
06/14/12 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12 (MW-14)	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA

* Filtered field sample was used for analysis

** Average based on all sampling events presented in table; For calculations non-detect equal to 1/2 of detection limit

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to installation of additional monitoring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 3. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury EPA-7470 (Dissolved)	Cadmium EPA-6020 (Dissolved)	Chromium EPA-6020 (Dissolved)	Lead EPA-6020 (Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
Clean-up Levels: MTCA Method-A (µg/L)	2	5	50	15
MW-1				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-2				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-3				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	4
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-4				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-5				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)

Table 3. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury EPA-7470 (Dissolved)	Cadmium EPA-6020 (Dissolved)	Chromium EPA-6020 (Dissolved)	Lead EPA-6020 (Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15
MW-6				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-7				
06/24/10	ND(<0.20)	1.7	2.7	1.9
09/08/10	ND(<0.20)	ND(<0.44)	2.4	6.5
09/08/10 Dup.	ND(<0.20)	ND(<0.44)	2.3	8.2
12/01/10	ND(<0.20)	ND(<0.44)	1.2	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	2.1	ND(<0.62)
03/22/11 Dup.	ND(<0.20)	ND(<0.44)	2.0	0.69
MW-8				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	2.0
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/01/10 Dup.	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.95	0.74
MW-9				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	4.2
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.82	0.64
MW-10				
06/15/11	ND(<0.20)	ND(<0.27)	1.1	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	0.83	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)

Table 3. Groundwater Sample Analytical Data - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-7470	EPA-6020	EPA-6020	EPA-6020
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	µg/L	µg/L	µg/L	µg/L
Clean-up Levels:				
MTCA Method-A (µg/L)	2	5	50	15
MW-11				
06/15/11	ND(<0.20)	ND(<0.27)	4.8	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	2.4	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)
MW-12				
06/15/11	ND(<0.20)	ND(<0.27)	5.5	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	5.2	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	4.3	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	3.6	ND(<1)
Equipment Blank				
08/02/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/15/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/08/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	7.3
12/01/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Indicates analyte was not sent to lab for analysis

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to installation of additional monitoring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 have not been analyzed for dissolved metals since approximately the third quarter of 2008.

Table 4. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	08/02/07	13.86	16.63	0.575	0.24	6.87	-125.9
	12/06/07	16.16	9.2	0.475	0.00	6.90	132
	03/12/08	15.29	9.0	0.401	1.71	7.10	136
	06/16/08	15.36	13.0	0.599	*	6.70	28
	09/15/08	14.13	16.1	0.737	*	7.07	-84
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.45	8.66	0.497	4.03	6.62	69
	03/04/09**		-	-	0.40	-	-
	06/04/09	15.18	13.33	0.634	1.47	6.27	-39
	09/02/09	13.38	16.98	0.999	1.32	6.55	-113
	11/18/09	17.34	12.04	*	0.00	7.13	33
	03/18/10	15.67	9.08	0.667	0.00	8.16	-62
	06/23/10	15.61	13.85	*	0.00	8.22	-98
	09/09/10	13.81	15.84	0.793	1.12	7.73	-122
	12/02/10	16.37	11.58	*	0.40	8.58	-70
	03/23/11	16.11	*	0.824	0.00	6.31	-85
	06/16/11	14.95	12.68	0.612	0.03	6.96	-118.1
	09/22/11	13.36	16.07	0.669	0.03	7.15	-166.9
	12/07/11	14.78	11.34	0.547	0.06	6.86	-89
	06/14/12	14.91	13.35	0.611	0.03	7.11	-126.3
	11/15/12	16.34	12.58	0.607	0.02	7.44	-146.3
MW-2	08/02/07	14.14	15.88	0.609	0.13	6.67	-107.2
	12/06/07	16.13	10.8	0.748	0.00	7.00	-115
	03/12/08	15.27	9.1	0.725	0.00	7.40	-166
	06/16/08	15.45	12.4	0.713	*	6.90	-160
	09/15/08	14.32	16.0	0.762	*	6.96	-129
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.53	8.83	0.758	3.95	6.94	-132
	03/04/09**		-	-	0.20	-	-
	06/04/09	15.29	14.62	0.727	1.07	6.47	-123
	09/02/09	13.53	17.55	0.999	1.52	6.49	-121
	11/18/09	17.41	11.95	*	0.00	8.50	-113
	03/18/10	15.75	10.10	0.836	0.00	8.28	-117
	06/23/10	15.71	14.82	*	0.00	8.42	-141
	09/09/10	14.06	16.95	0.749	1.10	7.53	-114
	12/02/10	16.41	11.88	*	0.38	8.71	-84
	03/23/11	16.18	*	0.96	0.00	6.39	-102
	06/16/11	15.09	12.87	0.635	0.02	7.03	-135.8
	09/22/11	13.50	15.92	0.656	0.04	7.00	-134.7
	12/07/11	14.90	11.63	0.707	0.05	7.09	-136.8
	06/14/12	15.10	12.25	0.612	0.02	7.22	-146.1
	11/15/12	16.45	12.46	0.625	0.02	7.53	-156.7

Table 4. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-3	08/02/07	14.12	16.48	1.028	0.16	6.48	-84.2
	12/06/07	15.50	9.7	0.772	0.00	6.70	-87
	03/12/08	15.25	9.5	1.050	0.00	7.20	-154
	06/16/08	15.19	13.2	0.822	*	6.80	-138
	09/15/08	14.23	17.5	1.060	*	6.84	-122
	10/29/08**		-	-	0.10	-	-
	03/04/09	15.16	9.03	0.866	4.06	6.72	-112
	03/04/09**		-	-	0.10	-	-
	06/04/09	15.11	14.22	0.778	0.80	6.32	-104
	09/02/09	13.39	16.97	0.930	1.23	6.34	-102
	11/18/09	17.25	12.34	*	0.00	8.06	-88
	03/18/10	15.60	10.29	0.722	0.00	8.08	-96
	06/23/10	15.40	14.74	*	0.00	8.05	-113
	09/09/10	13.95	16.92	0.95	1.37	7.15	-79
	12/02/10	16.10	11.39	*	0.57	8.19	-19
	03/23/11	15.79	*	0.99	0.00	6.28	-86
	06/16/11	14.72	13.08	0.749	0.02	6.85	-121.9
	09/22/11	13.45	16.3	0.888	0.07	6.76	-116.9
	12/07/11	14.72	11.34	0.685	0.03	6.72	-96.3
	06/14/12	14.93	12.33	0.813	0.03	7.08	-142.4
	11/15/12	16.27	12.32	0.759	0.03	7.51	-163.9
MW-4	08/03/07	14.13	16.98	0.337	2.08	6.46	127.3
	12/06/07	16.25	13.0	0.643	0.00	6.80	100
	03/12/08	15.36	10.3	0.609	0.05	7.10	85
	06/16/08	15.48	14.8	0.540	*	6.80	61
	09/15/08	14.35	18.2	0.592	*	6.84	112
	10/29/08**		-	-	0.20	-	-
	03/04/09	15.61	10.07	0.606	5.03	6.77	105
	03/04/09**		-	-	1.80	-	-
	06/04/09	15.34	15.44	0.507	1.49	6.31	106
	09/02/09	13.53	17.94	0.999	1.27	6.36	119
	11/18/09	17.44	13.34	*	0.28	6.60	118
	03/18/10	15.80	10.70	0.513	0.00	7.70	62
	06/23/10	15.74	15.81	*	0.17	7.66	37
	09/09/10	14.26	18.03	0.655	2.02	6.97	24
	12/02/10	16.46	12.80	3.66	1.06	7.36	83
	03/23/11	16.22	*	0.616	3.18	6.21	-52
	06/16/11	15.14	14.04	0.334	0.10	6.95	46.6
	09/22/11	13.45	17.37	0.314	0.08	6.92	38.1
	12/07/11	14.96	12.74	0.468	0.72	6.94	61
	06/14/12	15.16	13.76	0.357	0.09	7.14	17.5

Table 4. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-5	08/03/07	18.83	17.74	0.343	4.85	7.54	84.2
	12/06/07	23.60	10.2	0.412	6.87	7.80	138
	03/12/08	23.16	9.3	0.207	4.22	8.00	79
	06/16/08	22.09	14.5	0.186	*	7.00	76
	09/15/08	18.84	18.3	0.349	*	7.48	111
	10/29/08**		-	-	3.80	-	-
	03/04/09	23.39	8.48	0.213	6.37	7.05	222
	03/04/09**		-	-	4.30	-	-
	06/04/09	21.65	14.86	0.185	1.65	6.33	14
	09/02/09	17.59	17.98	0.503	1.30	6.59	49
	11/18/09	24.64	12.30	0.241	0.04	7.22	29
	03/18/10	23.36	9.87	0.197	0.00	7.49	151
	06/23/10	22.24	16.32	0.164	0.99	7.51	146
	09/09/10	18.20	18.40	0.316	1.03	7.08	51
	12/02/10	24.44	11.02	0.211	4.71	6.74	134
	03/23/11	23.80	*	0.265	3.53	6.27	-13
	06/16/11	21.26	13.59	0.153	0.12	6.69	10.1
	09/22/11	17.68	17.19	0.275	0.12	7.22	36.2
	12/07/11	22.41	10.77	0.139	1.00	6.81	44.9
	06/13/12	21.39	13.44	0.337	0.03	6.69	-119.4
MW-6	08/03/07	15.71	16.52	0.436	0.19	6.23	16.5
	12/06/07	18.86	10.3	0.394	0.00	6.60	-50
	03/12/08	18.43	9.0	0.413	0.00	6.90	-107
	06/16/08	18.16	13.7	0.426	*	6.30	-85
	09/15/08	15.52	16.5	0.492	*	6.48	-84
	10/29/08**		-	-	0.10	-	-
	03/04/09	19.15	8.25	0.333	6.39	6.53	-73
	03/04/09**		-	-	0.40	-	-
	06/04/09	17.58	13.58	0.358	0.87	5.98	-61
	09/02/09	14.80	16.32	0.710	0.98	6.18	-78
	11/18/09	19.39	12.76	0.346	0.00	7.24	-8
	03/18/10	19.28	9.37	0.227	0.00	7.80	-34
	06/24/10	18.04	14.99	0.395	0.34	7.74	-52
	09/09/10	16.37	16.93	0.502	1.44	6.88	-45
	12/02/10	20.22	10.56	*	0.28	8.10	-3
	03/23/11	19.90	*	0.324	0.00	6.36	-28
	06/16/11	17.43	12.38	0.331	0.06	6.49	-90.3
	09/22/11	14.76	16.04	0.403	0.05	6.57	-89.3
	12/08/11	17.64	10.94	0.325	0.06	6.34	-4.8
	06/13/12	17.43	14.56	0.121	0.07	6.85	-5.6
	11/16/12	19.08	12.59	0.245	0.02	6.74	-70.2

Table 4. Groundwater Chemistry Parameters

Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-7	06/24/10	9.40	15.73	*	0.79	7.96	-90
	09/08/10	9.46	16.83	0.632	1.24	7.24	-98
	12/01/10	10.59	14.33	1.71	0.62	7.03	-87
	03/22/11	10.66	*	0.68	0.00	6.30	-105
	06/15/11	10.06	12.47	0.401	0.03	6.90	-160.3
	09/21/11	9.86	16.75	0.61	0.04	6.78	-137.2
	12/08/11	10.06	12.99	0.638	0.02	6.81	-122.3
	06/13/12	10.02	13.89	0.54	0.02	6.96	-149.3
	11/15/12	10.15	15.33	0.625	0.01	7.43	-155.6
MW-8	06/24/10	15.65	15.15	0.874	0.16	8.58	-195
	09/08/10	14.06	17.63	0.505	0.57	7.80	-174
	12/01/10	16.37	12.41	3.18	0.56	7.96	-155
	03/22/11	16.11	*	0.52	0.00	6.63	-146
	06/15/11	15.02	13.03	0.409	0.02	7.57	-211.7
	09/21/11	13.55	18.17	0.434	0.02	7.45	-204.2
	12/06/11	14.84	12.09	0.589	0.02	7.03	-87.4
	06/13/12	15.06	14.4	0.432	0.01	7.52	-211.3
	11/15/12	16.42	14.15	0.425	0.01	7.47	-134.0
MW-9	06/24/10	15.66	14.18	0.584	0.00	8.63	-179
	09/08/10	14.04	15.95	0.354	0.02	8.07	-185
	12/01/10	16.35	12.52	*	0.62	8.87	-145
	03/22/11	16.10	*	0.553	0.00	6.55	-144
	06/15/11	15.01	12.48	0.406	0.02	7.30	-168.4
	09/21/11	13.49	16.3	0.317	0.02	7.41	-201.6
	12/06/11	14.83	11.72	0.416	0.01	7.35	-179.3
	06/13/12	15.05	13.02	0.404	0.01	7.25	-174.2
	11/15/12	16.40	12.51	0.343	0.01	7.99	-196.2

Table 4. Groundwater Chemistry Parameters

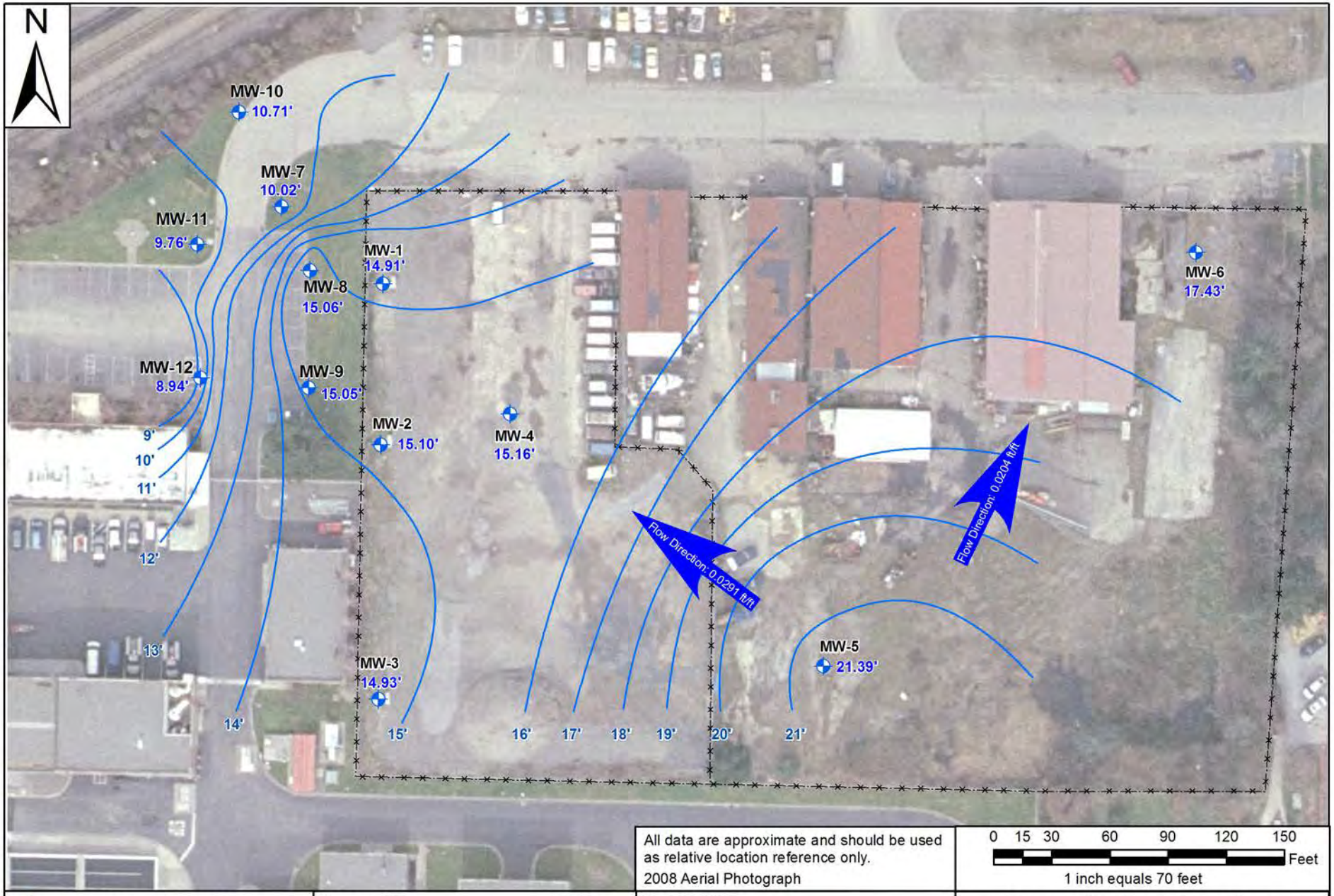
Well ID	Date	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-10	06/15/11	10.91	12.96	0.221	0.47	6.54	35.7
	09/21/11	9.59	16.41	0.227	0.05	6.43	29
	12/06/11	11.25	12.02	0.241	0.05	6.12	56.7
	06/13/12	10.71	14.17	0.234	0.03	6.57	-43.1
	11/16/12	10.46	14.78	0.43	0.04	6.08	18.0
MW-11	06/15/11	9.82	13.27	0.327	0.01	6.83	-116.6
	09/21/11	9.60	17.67	0.734	0.08	6.70	-164.6
	12/06/11	9.89	12.99	0.56	0.03	6.86	-125.7
	06/13/12	9.76	14.47	0.62	0.04	6.92	-150.2
	11/16/12	9.75	14.26	0.712	0.03	7.22	-139.4
MW-12	06/15/11	9.09	13.81	0.472	0.02	6.97	-96.5
	09/21/11	8.76	17.9	0.42	0.06	6.91	-116.1
	12/06/11	8.99	13.08	0.477	0.03	7.12	-70.9
	06/13/12	8.94	14.05	0.564	0.03	7.09	-54.5
	11/16/12	9.25	14.75	0.576	0.02	7.05	-65.7

* Meter Error

** DO readings were verified using a Hach HQ10 optical type DO probe.

APPENDIX A

Groundwater Elevation Contour Maps



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Active GW Monitoring Wells

Groundwater Contour

Fence

00' Groundwater Contour Elevation

00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

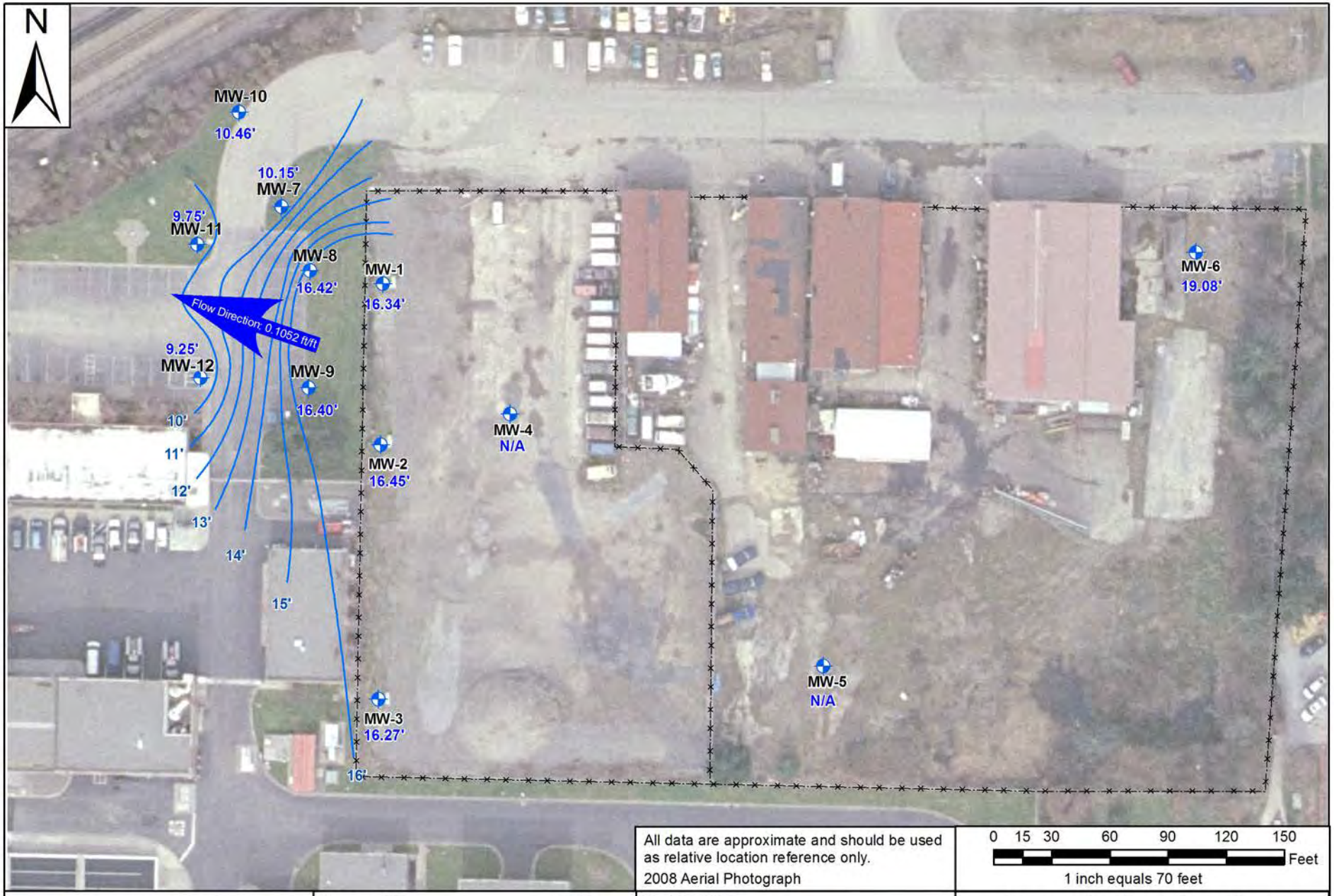
whatcom ENVIRONMENTAL

Groundwater Elevations June 12, 2012

210 McKenzie Remediation

11/20/12

Figure A1



All data are approximate and should be used as relative location reference only.

2008 Aerial Photograph

0 15 30 60 90 120 150 Feet

1 inch equals 70 feet

Groundwater Contour

Active GW Monitoring Wells

Fence

00' Groundwater Contour Elevation

00.00' Groundwater Elevation Inside Well

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

Groundwater Elevations Nov.15, 2012 (no MW-4, 5 or 6)

210 McKenzie Remediation

11/20/12

Figure A2

APPENDIX B

Original Groundwater Sample Laboratory Analytical Data

June 2012 Groundwater Data

June 26, 2012

Mr. Thom Davis
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Davis,

On June 15th, 14 samples were received by our laboratory and assigned our laboratory project number EV12060096. The project was identified as your 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 10:00:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/15/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/18/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/18/2012	EBS
Mercury	EPA-7470	U	0.20	1	UG/L	06/25/2012	RAL
Arsenic	EPA-6020	**1.8**	1.0	1	UG/L	06/21/2012	RAL
Cadmium	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL
Chromium	EPA-6020	**3.6**	2.0	1	UG/L	06/21/2012	RAL
Lead	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.2**	06/15/2012	DLC
TFT	EPA-8021	**95.7**	06/15/2012	DLC
C25	NWTPH-DX	**111**	06/18/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 11:00:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/15/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Mercury	EPA-7470	U	0.20	1	UG/L	06/25/2012	RAL
Arsenic	EPA-6020	**6.2**	1.0	1	UG/L	06/21/2012	RAL
Cadmium	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL
Chromium	EPA-6020	U	2.0	1	UG/L	06/21/2012	RAL
Lead	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.1**	06/15/2012	DLC
TFT	EPA-8021	**94.8**	06/15/2012	DLC
C25	NWTPH-DX	**118**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 12:00:00 PM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/15/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Mercury	EPA-7470	U	0.20	1	UG/L	06/25/2012	RAL
Arsenic	EPA-6020	**1.5**	1.0	1	UG/L	06/21/2012	RAL
Cadmium	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL
Chromium	EPA-6020	U	2.0	1	UG/L	06/21/2012	RAL
Lead	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.0**	06/15/2012	DLC
TFT	EPA-8021	**94.8**	06/15/2012	DLC
C25	NWTPH-DX	**120**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 1:00:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**260**	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Arsenic	EPA-6020	**4.6**	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**116**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 2:00:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**150**	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Arsenic	EPA-6020	**1.9**	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**120**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 3:00:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	**9.7**	1.0	1	UG/L	06/21/2012	RAL

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 3:30:00 PM
CLIENT SAMPLE ID	MW-5	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	**1.1**	1.0	1	UG/L	06/21/2012	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/13/2012 4:30:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	**8.1**	1.0	1	UG/L	06/21/2012	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 10:15:00 AM
CLIENT SAMPLE ID	MW-4	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 11:15:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/15/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/15/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/15/2012	DLC
TPH-Diesel Range	NWTPH-DX	**190**	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Arsenic	EPA-6020	**2.6**	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.2**	06/15/2012	DLC
TFT	EPA-8021	**91.7**	06/15/2012	DLC
C25	NWTPH-DX	**96.6**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 12:15:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Arsenic	EPA-6020	**10**	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**96.8**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS JOB#:	EV12060096
		ALS SAMPLE#:	-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 1:15:00 PM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	**7.3**	1.0	1	UG/L	06/21/2012	RAL

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 2:15:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2012	DLC
TPH-Diesel Range	NWTPH-DX	**130**	130	1	UG/L	06/19/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/19/2012	EBS
Arsenic	EPA-6020	**2.8**	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**103**	06/16/2012	DLC
TFT	EPA-8021	**94.5**	06/16/2012	DLC
C25	NWTPH-DX	**102**	06/19/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	6/26/2012 EV12060096 -14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	6/15/2012
CLIENT PROJECT:	210 McKenzie	COLLECTION DATE:	6/14/2012 2:45:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/16/2012	DLC
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/16/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/16/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/16/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/18/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/18/2012	EBS
Arsenic	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**108**	06/16/2012	DLC
TFT	EPA-8021	**93.9**	06/16/2012	DLC
C25	NWTPH-DX	**98.6**	06/18/2012	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS SDG#:	EV12060096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY BLANK RESULTS

MBG-060812W - Batch 2834 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/08/2012	DLC

MB-060812W - Batch 2834 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	U	3.0	1	UG/L	06/08/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	06/08/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	06/08/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/08/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	06/08/2012	DLC

MB-061812W - Batch 2864 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	06/18/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	06/18/2012	EBS

MBLK-6252012 - Batch R77697 - Water by EPA-7470

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7470	U	0.20	1	UG/L	06/25/2012	RAL

MB-062012W - Batch 2862 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL
Cadmium	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL
Chromium	EPA-6020	U	2.0	1	UG/L	06/21/2012	RAL
Lead	EPA-6020	U	1.0	1	UG/L	06/21/2012	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS SDG#:	EV12060096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2834 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**73.9**			06/08/2012	DLC
TPH-Volatile Range - BSD	NWTPH-GX	**82.3**	**11**		06/08/2012	DLC

ALS Test Batch ID: 2834 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Methyl T-Butyl Ether - BS	EPA-8021	**89.2**			06/08/2012	DLC
Methyl T-Butyl Ether - BSD	EPA-8021	**92.0**	**3**		06/08/2012	DLC
Benzene - BS	EPA-8021	**102**			06/08/2012	DLC
Benzene - BSD	EPA-8021	**104**	**1**		06/08/2012	DLC
Toluene - BS	EPA-8021	**98.4**			06/08/2012	DLC
Toluene - BSD	EPA-8021	**99.2**	**1**		06/08/2012	DLC
Ethylbenzene - BS	EPA-8021	**95.2**			06/08/2012	DLC
Ethylbenzene - BSD	EPA-8021	**96.5**	**1**		06/08/2012	DLC
Xylenes - BS	EPA-8021	**95.6**			06/08/2012	DLC
Xylenes - BSD	EPA-8021	**96.6**	**1**		06/08/2012	DLC

ALS Test Batch ID: 2864 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**80.7**			06/18/2012	EBS
TPH-Diesel Range - BSD	NWTPH-DX	**85.0**	**5**		06/18/2012	EBS

ALS Test Batch ID: R77697 - Water by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7470	**104**			06/25/2012	RAL
Mercury - BSD	EPA-7470	**102**	**2**		06/25/2012	RAL

ALS Test Batch ID: 2862 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**99.4**			06/21/2012	RAL
Arsenic - BSD	EPA-6020	**100**	**1**		06/21/2012	RAL
Cadmium - BS	EPA-6020	**101**			06/21/2012	RAL
Cadmium - BSD	EPA-6020	**102**	**0**		06/21/2012	RAL
Chromium - BS	EPA-6020	**97.9**			06/21/2012	RAL
Chromium - BSD	EPA-6020	**99.2**	**1**		06/21/2012	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	6/26/2012
		ALS SDG#:	EV12060096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	**98.5**			06/21/2012	RAL
Lead - BSD	EPA-6020	**99.2**	**1**		06/21/2012	RAL

APPROVED BY

Laboratory Director

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Everett, WA 98208
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(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

EV1206096

Date 6-14-12 Page 1 Of 2

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Thom
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 FAX:
P.O. NUMBER: E-MAIL: tdavis@whatcom-
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

LABORATORY COPY

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☒ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (As)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-12	6/13/12	1000	water	1		X	X	X	X								X			5	
2. MW-11		1100		2		X	X	X	X								X			5	
3. MW-10		1200		3		X	X	X	X								X			5	
4. MW-9		1300		4		X												X		2	
5. MW-8		1400		5		X												X		2	
6. MW-7		1500		6														X		1	
7. MW-5		1530		7														X		1	
8. MW-6		1630		8														X		1	
9.																					
10.																					

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 6/14/12 @ 1500
Received By: ALS 6/15/12 1:00
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY
Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Laboratory Group
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.alsenviro.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV1206096

Date 6/14/12 Page 2 Of 2

PROJECT ID: 210 McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs
PROJECT MANAGER: Thom
ADDRESS: 228 E Champion #101
B'ham, WA 98225
PHONE: FAX: 752-9573
P.O. NUMBER: E-MAIL: dave@- - - -
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Arsenic (AS)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-4	6/14/12	1015	water	9														X			1	
2. MW-3		1115		10		X	X	X	X									X			5	
3. MW-2		1215		11		X												X			2	
4. MW-1		1315		12														X			1	
5. MW-13		1415		13		X	X	X	X									X			5	
6. MW-14		1445		14		X	X	X	X									X			5	
7.																						
8.																						
9.																						
10.																						

LABORATORY COPY

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] WES 6/14/12 1500
Received By: [signature] ALS 6/15/12 1:00
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: (5) Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

November 2012 Groundwater Data

November 30, 2012

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On November 20th, 12 samples were received by our laboratory and assigned our laboratory project number EV12110108. The project was identified as your 210 McKenzie Ave. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS SDG#:	11/30/2012 EV12110108
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	11/20/2012
CLIENT PROJECT:	210 McKenzie Ave	WDOE ACCREDITATION:	C601

DATA RESULTS

MATRIX: Water **METHOD:** SW6020 **ANALYTE:** Arsenic (Dissolved) **UNITS:** UG/L

CLIENT SAMPLE ID	ALS SAMPLE #	RESULTS	REPORTING LIMIT	DILUTION	ANALYSIS DATE	COLLECTION DATE/TIME	ANALYSIS BY
MW-1	EV12110108-01	**6.9**	1.0	1	11/28/2012	11/15/2012 12:15	RAL
MW-2	EV12110108-02	**14**	1.0	1	11/28/2012	11/15/2012 12:45	RAL
MW-3	EV12110108-03	**3.0**	1.0	1	11/28/2012	11/15/2012 11:25	RAL
MW-6	EV12110108-04	**4.5**	1.0	1	11/28/2012	11/16/2012 12:10	RAL
MW-7	EV12110108-05	**12**	1.0	1	11/28/2012	11/15/2012 14:45	RAL
MW-8	EV12110108-06	**1.4**	1.0	1	11/28/2012	11/15/2012 14:15	RAL
MW-9	EV12110108-07	**2.9**	1.0	1	11/28/2012	11/15/2012 13:30	RAL
MW-10	EV12110108-08	**2.5**	1.0	1	11/28/2012	11/16/2012 09:30	RAL
MW-11	EV12110108-09	**7.9**	1.0	1	11/28/2012	11/16/2012 10:25	RAL
MW-12	EV12110108-10	**1.5**	1.0	1	11/28/2012	11/16/2012 11:30	RAL
MW-13	EV12110108-11	**4.4**	1.0	1	11/28/2012	11/16/2012 12:30	RAL
MW-14	EV12110108-12	U	1.0	1	11/28/2012	11/15/2012 15:00	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/30/2012
		ALS SDG#:	EV12110108
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	210 McKenzie Ave		

LABORATORY BLANK RESULTS

MB-112612W - Batch 3273 - Water by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-6020	U	1.0	1	UG/L	11/28/2012	RAL

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Laboratory Group A Campbell Brothers Limited Company

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/30/2012
		ALS SDG#:	EV12110108
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	210 McKenzie Ave		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 3273 - Water by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-6020	**98.8**			11/28/2012	RAL
Arsenic (Dissolved) - BSD	EPA-6020	**99.1**	**0**		11/28/2012	RAL

APPROVED BY

Laboratory Director

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http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV12110108

Date 11-16-12 Page ~~1~~ 1 Of 2

PROJECT ID:	210 MCKENZIE AVE.
REPORT TO COMPANY:	WHATCOM ENV. SVCS.
PROJECT MANAGER:	HAROLD CASHMAN
ADDRESS:	228 E. CHAMPION ST. #101
	BELLINGHAM, WA 98225
PHONE:	(360) 752-9571 FAX:
P.O. NUMBER:	E-MAIL: HCASHMAN@WHATCOM..
INVOICE TO COMPANY:	SAME AS ABOVE
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Dissolved As, Cr, Pb, V	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	11-15-12	~~11:35~~ 12:15	WATER	1														X		1	
2. MW-2	11-15-12	12:45		2														X		1	
3. MW-3	11-15-12	11:25		3														X		1	
4. MW-6	11-16-12	12:10		4														X		1	
5. MW-7	11-15-12	14:45		5														X		1	
6. MW-8	11-15-12	14:15		6														X		1	
7. MW-9	11-15-12	13:30		7														X		1	
8. MW-10	11-16-12	9:30		8														X		1	
9. MW-11	11-16-12	10:25		9														X		1	
10. MW-12	11-16-12	11:30		10														X		1	

LABORATORY COPY

SPECIAL INSTRUCTIONS ALL SAMPLES WERE FILTERED IN TALC FIELD.

SIGNATURES (Name, ~~Company~~, ~~Date~~, ~~Time~~):

1. Relinquished By: [signature] WES - 11/19/12 @ 1500

Received By:

2. Relinquished By:

Received By: Shawn Robinson ALS 11/20/12 2:45

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(425) 356-2626 Fax
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV12110108

Date 11-16-12 Page 2 Of 2

PROJECT ID: 210 McKenzie Ave.
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Harold
ADDRESS: 228 E. Champion St. #101
Bellingham, WA 98225
PHONE: (360) 752-9571 FAX:
P.O. NUMBER: E-MAIL: HSCASHMAN@WHATCOM.
INVOICE TO COMPANY: Same As Above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-13	11-16-12	12:30	WATER	11
2. MW-14	11-15-12	15:00	WATER	12
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Dissolved Arsenic	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐
													X	
													X	

OTHER (Specify)

NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1	
1	

SPECIAL INSTRUCTIONS: All Samples Were Filtered In The Field.

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: WES on 11/19/12 @ 1500
Received By:
2. Relinquished By:
Received By: Shawn Robinson ALS 11/20/12 2:45

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: Standard (X) | 5 | 3 | 2 | 1 | SAME DAY
Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY
OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

LABORATORY COPY

SITE ASSESSMENT REPORT
POST POINT RESOURCE RECOVERY PLANT BIOSOLIDS PROJECT
200/210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
FSID #151016

prepared for:

City of Bellingham
200 McKenzie Avenue
Bellingham, Washington 98225

November 5, 2021

whatcom ENVIRONMENTAL

soil • water • air
compliance solutions

228 East Champion Street, Suite 101, Bellingham, WA 98225
360.752.9571 | *www.whatcom-es.com*

SITE ASSESSMENT REPORT
POST POINT RESOURCE RECOVERY PLANT
BIOSOLIDS PROJECT
200/210 MCKENZIE AVENUE
BELLINGHAM, WASHINGTON
FSID #151016

Prepared for:

City of Bellingham
200 McKenzie Avenue
Bellingham, Washington 98225

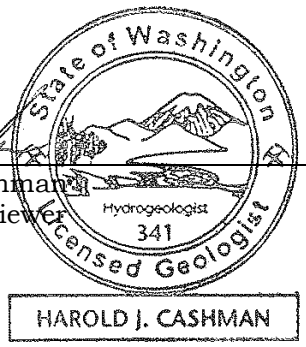
Prepared by:

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, Washington 98225

November 5, 2021

Aimee Pennell
Project Manager

Harold Cashman
QA/QC Reviewer



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ACRONYMS AND ABBREVIATIONS

ARAR	-	Applicable and Relevant and Appropriate Requirements
AST	-	Aboveground Storage Tank
bgs	-	below ground surface
BTEX	-	Benzene, Toluene, Ethylbenzene, and Xylenes
CAP	-	Cleanup Action Plan
COC	-	Contaminant/Chemical of Concern
CSID	-	Cleanup Site Identification Number
CSM	-	Conceptual Site Model
CUL	-	Clean-up Level
Ecology	-	Washington State Department of Ecology
EDB	-	1,2-Dibromoethane
EDC	-	1,2-Dichloroethane
ERNS	-	Emergency Response Notification System
ESA	-	Environmental Site Assessment
FOC	-	Fraction of Organic Carbon
FSID	-	Facility Site Identification Number
LUST	-	Leaking Underground Storage Tank
MNA	-	Monitored Natural Attenuation
MTCA	-	Model Toxics Control Act
NFA	-	No Further Action
PAH	-	Polycyclic Aromatic Hydrocarbons
PID	-	Photoionization Detector
PCB	-	Polychlorinated Biphenyls
RCW	-	Revised Code of Washington
RI/FS	-	Remedial Investigation/Feasibility Study
TPH	-	Total Petroleum Hydrocarbons
TEE	-	Terrestrial Ecological Evaluation
UST	-	Underground Storage Tank
VCP	-	Voluntary Cleanup Program
VOC	-	Volatile Organic Compounds
WAC	-	Washington State Administrative Code

1.0 INTRODUCTION

A site assessment was conducted at 200/210 McKenzie Avenue in Bellingham, Washington. The property is owned by the City of Bellingham and is located immediately adjacent to the Post Point Resource Recovery Plant (Post Point).

The City of Bellingham purchased the property in 2006 and plans to use the property to expand the Post Point facility during construction of the Post Point Resource Recovery Plant Biosolids Project. This report summarizes the environmental characterization of subsurface soil and groundwater conditions at the property.

1.1 GENERAL SITE INFORMATION

The property is located at 200/210 McKenzie Avenue in Bellingham, Washington (Figure 1). The property is comprised of two parcels (370211403538 and 370202452038) and is located in the southeast quarter of the southeast quarter of Section 2 in Township 37 North, Range 2 East. The property is situated approximately 2.85 miles southwest of downtown Bellingham, 0.25 miles from the outlet of Padden Creek, and 0.18 miles east of Bellingham Bay. The 200 McKenzie Avenue property is zoned Public and the 210 McKenzie Avenue property is zoned Industrial by the City of Bellingham. A site map is provided as Figure 2.

Contact information for the project consultant and property owner are included below.

- Project Consultant: Whatcom Environmental Services, Inc.
  - Address: 228 E Champion St #101, Bellingham, WA 98225
  - Contact: Harold Cashman
  - Phone: (360) 752-9571
  - Email: hjcashman@whatcom-es.com

- Property Owner: City of Bellingham
  - Address: 200 McKenzie Ave, Bellingham, WA 98225
  - Contact: Steve Bradshaw
  - Phone: (360) 778-7892
  - Email: srbradshaw@cob.org

1.2 PROPERTY HISTORY

The property was initially developed beginning in the late 1800s and was first industrially developed in the early 1900s. Several phases of development occurred at the property over the next several decades. Over time, the property was used as a brick manufacturing facility, a foundry, a chain manufacturing facility, several types of boat manufacturing facilities, a warehousing and general storage facility, as an auto repair shop, and as a machine shop. A complete review of the historical site development was provided in the 2016 Remedial Investigation/Feasibility Study (RI/FS) report (WES, 2016).

A Phase I Environmental Site Assessment (ESA) was conducted on behalf of the City of Bellingham in 2006 (Whatcom Environmental, 2006). The ESA was conducted for the property located at 210 McKenzie Avenue in Bellingham, Washington. The Phase I ESA revealed evidence of multiple recognized environmental conditions (RECs) associated with the subject property, including:

1. the existence of subsurface petroleum contaminated soil associated with the three former fuel storage tanks (Purnell, W. D. & Assoc., 1994a and b);
2. the presence of a gasoline underground storage tank;
3. metal working operations associated with the former chain and forge business including galvanizing of chain and storage of petroleum products;
4. past and current boat fabrication operations, including sand blasting of boat hulls, painting activities, and the use of lead ballast;
5. storage of numerous drums of unknown content;
6. above ground heating oil and waste oil tanks at the auto repair business; and
7. an underground hydraulic lift at the auto repair business.

The subject property RECs were investigated in April 2007 by excavating 30 test pits at various locations across the entire property. The investigation findings were reported to Ecology in a report dated June 25, 2007, titled *Initial Site Investigation* (WES, 2007b). Twenty-four soil samples were collected to evaluate subsurface soil conditions. Three soil samples were collected from the ground surface to evaluate suspected areas of surface contamination. Three trench water samples were collected from water infiltrating into the excavated trenches.

Laboratory analytical results indicated petroleum constituents, volatile and semi-volatile organic compounds, and metals contamination were present at several locations in the soil and groundwater at concentrations exceeding the Method A target cleanup levels. Remedial Investigation work has continued at the Site since 2007 and is summarized in Section 2.0.

1.3 SITE DEFINITION

The "Site" described in this document is defined as per WAC 173-340-200 and includes "any area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located." The "Site" is defined as the approximate areas of soil and groundwater contamination identified at the property. The Site is defined by the presence of contamination and buried waste material located on the eastern portion of Parcel #370211403538 and the western portion of Parcel #370202452038. The buried waste material is associated with the property's former use as a brick manufacturer, a chain and forge facility, and a boat building and maintenance yard. The Site also includes four relatively small areas of shallow soil contamination located east of the main Site. The contaminated soil portion of the Site is approximately 0.62 acres in area (Figure 3).

The Site soil contamination consists of petroleum constituents, volatile and semi-volatile organic compounds, and metals at concentrations exceeding soil cleanup levels for unrestricted land use. The Site groundwater contamination consists of dissolved arsenic, dissolved iron, and diesel- and oil-range total petroleum hydrocarbons at concentrations exceeding groundwater cleanup levels.

The Site has been assigned the Facility Site ID #151016, Cleanup Site ID #3204, and former VCP Project #NW2179 (Site removed from VCP program in December 2016).

1.4 PROPERTY USE

Five buildings are currently located on the 210 McKenzie Avenue property. The buildings were constructed between 1943 and 1944. The buildings are identified on Figure 3.

Building #1 is located near the northeast corner of the parcel. It is the largest of the six structures at ~7,000 sq. ft. and is constructed of metal beams with a sheet metal skin. It is currently occupied by a company producing plastic kayaks, docks, and floats using a Roto-Molding machine.

Building #2 is a wooden frame building located west of #1 and is ~5,000 sq. ft. in area. It was occupied by the Iota Metal Working Services until recently and is now occupied by the City of Bellingham Post Point Maintenance Staff.

Building #3 (west of #2) is connected to #2. Building #3 is a wooden frame construction that is ~2,500 sq. ft. in area. It is currently used for storage by the Washington State Ecology Youth Corps (EYC).

Building #4, located south of #3, is ~1,000 sq. ft. in area and made of wood. It is also used by EYC for storage and for storage of Post Point Maintenance equipment.

Building #5, located west of #3, is ~3,000 sq. ft. in area and made of wood. It was formerly occupied by John's Repair, an auto repair company which utilized an underground hydraulic lift. It is currently occupied the Post Point Maintenance Department and is used as a parts warehouse.

2.0 PREVIOUS INVESTIGATIONS

Several environmental investigations (EI) and interim actions (IA) have been completed at the property since 1990. The chronology of the environmental investigations and interim actions conducted at the property is best summarized by presenting a list of report documents associated with the Site. These documents were included in Appendix A of the 2016 RI/FS Report (WES, 2016).

1. Post Point Pollution Control Plant Secondary Expansion Geotechnical Data Report (DRAFT). CH2M Hill. August 1989.
2. Environmental Site Assessment: Phase II, 206 and 208 McKenzie Avenue, Bellingham, Washington. Purnell, W. D. & Assoc. January 5, 1994. (Partial Document)
3. Final Report, On-Site Thermal Desorption of Contaminated Soil, 206 and 208 McKenzie Avenue, Bellingham, Washington. Purnell, W. D. & Assoc. December 16, 1994.
4. Phase I Environmental Site Assessment Homeport Properties Inc. 210 McKenzie Avenue Bellingham, Washington. Whatcom Environmental Services. June 26, 2006.
5. 210 McKenzie Avenue – Underground Storage Tank Removal and Site Assessment. Whatcom Environmental Services. June 20, 2007a.
6. Initial Site Investigation, 210 McKenzie Avenue, Bellingham, Washington. Whatcom Environmental Services. June 25, 2007b.
7. 210 McKenzie Avenue – Surface Soil Remediation and Disposal Action. Whatcom Environmental Services. November 1, 2007c.
8. Groundwater Investigation Data Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. February 11, 2009.
9. 2009 Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. March 15, 2010.
10. 2010 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. March 18, 2011.

11. 2011 Additional Site Investigation and Groundwater Monitoring Report, 210 McKenzie Avenue, Bellingham, Washington (Facility Site ID #151016). Whatcom Environmental Services. January 12, 2012.
12. 2016 Remedial Investigation and Feasibility Study, 200/210 McKenzie Avenue, Bellingham, Washington (FSID# 151016/VCP# NW2179). Whatcom Environmental Services. March 30, 2016.

2.1 SOIL INVESTIGATIONS

A soil geotechnical report was prepared for the City of Bellingham by CH2M Hill in August 1989 as a part of the Post Point Wastewater Treatment Plant Upgrade. A topographic map was included in the report that shows the topography of the western side of the subject property prior to its being filled and leveled. The report describes numerous soil borings and test pits completed near the property boundaries but outside of the impacted Site. The soil boring logs provided with the report indicated that fill materials were not encountered in any significant quantity outside the property boundaries. No indication of petroleum contamination was noted on any of the soil boring logs. Peat layers and abundant shells were encountered in several of the geotechnical borings supporting the interpretation of the natural history of the property as a tidal marsh or upper beach. Test pit TP-12 and soil boring B-3, completed in 1989, were used to assist in defining the western edge of the Site (Figure 4).

The discovery of petroleum contaminated soil (PCS) at the property was first documented in a limited Phase II ESA report dated January 5, 1994, titled *Environmental Site Assessment: Phase II* prepared by W. D. Purnell & Associates. The copy of the report obtained for review was incomplete. The location of the documented contamination was loosely referenced in the text as a "UST pit" and seemed to indicate its location near the northwest corner of the property. Three tanks can be seen in this location on historic aerial photographs and on historic Sanborn fire insurance maps. The report stated that the location of the "UST pit" was "excavated in fill material that includes clay, sandy gravel, bricks and metal debris". Although the reviewed report was incomplete, it did state that PCS was present at the property above the MTCA Method A cleanup levels applicable at that time and that the release was reported to Ecology.

A subsurface soil investigation was conducted at the property in April 2007. The investigation findings were reported to Ecology in a report dated June 25, 2007, titled *Initial Site Investigation* (WES, 2007b). The intent of the investigation was to determine the extent of the PCS remaining at the western portion of the property reportedly remediated in 1994, and to determine if other areas of contamination exist at the property. Thirty exploratory trenches/pits were excavated at the property. Observations made during the excavation work indicated that the western portion of the property contained fill material (including glass, bricks, and metal debris). Water appeared to be perched in the fill/debris material. The majority of the remainder of the property appeared to be underlain by relatively dry native clayey silt. Twenty-four soil samples were collected to evaluate subsurface soil conditions. Three soil samples were collected from the ground surface to evaluate suspected areas of surface contamination. Test pit locations are shown on Figure 4. Laboratory analytical results indicated petroleum constituents, volatile and semi-volatile organic compounds, and metals contamination were present in soil at concentrations exceeding the MTCA Method A target cleanup levels. The laboratory analytical data from 2007 are summarized in tables included in Appendix A. The laboratory analytical data confirmed that historical land uses had impacted soil quality at the property.

Subsurface soil was also investigated in 2007, 2010, and 2011 during the installation of the groundwater monitoring well system (WES, 2009; WES, 2010; WES, 2011). Soil borings were advanced to depths ranging from 15 to 20 feet below the ground surface (bgs). Fill debris was discovered in several of the soil borings, both on and off the property. No soil samples were collected from the borings in 2007. Soil samples were collected from the borings in 2010 and 2011. Laboratory analysis of the soil samples confirmed that petroleum and metals contamination originating on-site may have been historically dumped or migrated to the City of Bellingham's Post Point property. The laboratory analytical data from 2010 and 2011 soil sampling are summarized in tables included in Appendix A.

2.2 GROUNDWATER INVESTIGATIONS

The groundwater at the subject property was initially investigated, in a limited nature, during the 2007 soil investigation. Oily sheens were observed on perched water observed in several of the test trenches excavated on the western portion of the property. Trench water samples were collected, and laboratory analysis indicated that it was

possible that petroleum compounds and metals may have impacted the perched water at the property.

Three phases of groundwater monitoring well installation work were completed at the property following the identification of areas of soil contamination. Six wells were initially installed within the confines of the subject property in July 2007 (MW-1 through MW-6). The investigation findings were reported in the document dated February 11, 2009, titled *Groundwater Investigation Data Report* (WES, 2009). Those six wells were monitored quarterly for approximately 4 years. Water sample laboratory analytical data showed consistent concentrations of arsenic exceeding the MTCA Method A target cleanup level at two locations (MW-2 and MW-6). Minor concentrations of petroleum contamination were detected in one well (MW-3) at concentrations which did not exceed the MTCA Method A cleanup levels. Groundwater analytical data collected at the Site since 2007 are summarized in Appendix A.

Three additional wells were installed in May 2010 (MW-7 through MW-9). The investigation findings were reported in the document dated March 18, 2011, titled *2010 Additional Site Investigation and Groundwater Monitoring Report* (WES, 2011). Water samples collected from the wells confirmed that arsenic contamination at concentrations exceeding the MTCA Method A target cleanup level was present off the property. Laboratory data also indicated that petroleum and lead contamination, discovered in the soil, were not impacting groundwater quality.

An arsenic speciation study was conducted in January 2010. The study findings were presented in the report dated March 18, 2011. The laboratory data support the hypothesis that the elevated arsenic values are the result of reducing conditions in the perched groundwater. The low oxidation/reduction potential of the groundwater causes arsenic-bearing ferric iron Fe(III) to be reduced to ferrous iron Fe(II), which allows the adsorbed arsenic to go into solution. Based on the arsenic speciation findings, the source of the dissolved arsenic is presumed to be desorption from mineral oxides in the aquifer matrix caused by the reducing conditions observed at the property.

Three additional wells were installed in June 2011 (MW-10 through MW-12). The investigation findings were reported in the document dated January 12, 2012, titled *2011 Additional Site Investigation and Groundwater Monitoring Report* (WES, 2012). Groundwater sample laboratory analytical data collected in 2011 confirmed the presence

of arsenic in well MW-11 at concentrations exceeding the MTCA Method A target cleanup level. No other contamination was detected.

2.3 INTERIM ACTIONS

The petroleum contaminated soil discovered by W. D. Purnell & Associates was excavated from the former tank pit and treated on-site via thermal desorption (Purnell, 1994b). The December 1994 report documenting the on-site treatment of the PCS indicated that some of the soil had to be treated three times before finally passing the allowable MTCA concentrations. The report concluded by stating that treated soil was used to backfill the tank pit. The report conclusions also stated that the on-site thermal desorption process was limited in its effectiveness and that petroleum contaminated soil remained in the bottom and sidewalls of the former tank pit. The location of the 1994 work is shown on Figure 5.

On April 4, 2007, one unregulated, abandoned 600-gallon gasoline UST was removed from the ground at the property (WES, 2007a). The tank was located between building #3 and building #4. Visual observations and field screening results indicated that a minor amount of petroleum product had been released to the soil in that area. Soil and water samples were collected from the tank pit excavation to confirm that the UST had not caused a significant release to soil or groundwater. The soil analytical data met the appropriate MTCA Method A and Method B cleanup levels for unrestricted land use. The former location of the removed UST is shown on Figure 5.

A contaminated surface soil removal action was conducted at the property in July 2007 (WES, 2007c). The contaminated surface soil was located on the western side of the property in an area used as a private boat storage and maintenance yard. Approximately 48 tons of contaminated soil were excavated and shipped off-site to a licensed soil treatment and disposal facility. Clean confirmation soil samples collected after the surface soil excavation activities were completed did not contain concentrations of contaminants above the MTCA Method A target cleanup levels. The location of the surface soil remediation excavations are shown on Figure 5.

3.0 2020/2021 SITE ASSESSMENT

The subsurface conditions at the site were further investigated in 2020 and 2021 as part of the Post Point Resource Recovery Plant Biosolids project. The field activities were conducted in accordance with Whatcom Environmental Service's standard field protocols (Appendix B).

Twelve soil borings were drilled in October 2020 (B-1-20 through B-10-20, MW-13, and MW-14). Seven soil borings were drilled in July 2021 (Piezometer P-1 and B-1-21 through B-6-21). The borings were continuously cored to depths ranging from 10 to 50 feet below grade. Soil boring logs are included in Appendix C.

Seven test pits were excavated in November 2020 (TP-1-20 through TP-7-20). The test pits were excavated to depths of 5 to 6 feet below grade. A Bruker S1 TITAN Series Handheld X-ray fluorescence (XRF) Analyzer was used screen soil samples collected from the test pits for arsenic and evaluate the potential of using the XRF in the field to guide any arsenic cleanup work conducted in the future. Arsenic results were recorded on the test pit logs included in Appendix D.

Groundwater monitoring wells were installed in two of the October 2020 soil boring locations. The wells were identified as MW-13 and MW-14. The monitoring wells were installed to a depth of 15 feet bgs and were constructed with machine slotted, 2-inch diameter PVC pipe. One piezometer was installed in one of the July 2021 soil boring locations. The piezometer was identified as Piezometer P-1. The piezometer was installed to a depth of 10 feet bgs and constructed with machine slotted, 2-inch diameter PVC pipe. The top of the screen is approximately 2 feet bgs. The groundwater monitoring well and piezometer construction diagrams are provided in Appendix E.

The contaminated soil/landfill waste was evaluated per Washington's Dangerous Waste Regulations (Chapter 173-303 WAC) as part of the 2021 site assessment work. The Dangerous Waste Regulations are based on the federal Resource Conservation and Recovery Act (RCRA) but are more protective, so part of the waste designation procedure includes determining if the waste qualifies as a Washington state-only dangerous waste.

Procedures for designating waste are specified in WAC 173-303-070. Knowledge of the materials or the processes generating the waste and analytical data are both used when designating waste. For the contaminated soil/landfill waste, analytical data were used to determine (a) if the waste exhibits one or more dangerous waste characteristics per WAC 173-303-090 and (b) if the waste meets any state-only dangerous waste criteria per WAC 173-303-100.

Washington's Dangerous Waste regulations are based on RCRA hazardous waste regulations but contain additional requirements. Wastes that designate as hazardous per RCRA procedures (i.e. P, U, F, K, and/or D waste codes) must be handled per the Washington Dangerous Waste regulations (storage, handling, transporting, disposal, etc.) at all times while in the U.S. Wastes that designate as dangerous solely due to Washington-only regulations (waste codes WT01, WT02, WP01, WP02, WP03, WPCB, and/or WSC2) must be handled per the Washington Dangerous Waste regulations while in the state of Washington. Once the dangerous waste is outside of Washington state, many of the requirements are no longer applicable, depending on the requirements of the state where the disposal facility is located.

3.1 LABORATORY ANALYSIS

3.1.1 Soil Sample Analysis

One or more soil samples were collected from each 2020 soil boring location. Soil samples were collected from select borings in 2021. The samples were identified by both the boring number from which they originated and the depth from which they were collected (i.e. *B-1-20 28.5ft*). The following laboratory methods were used to analyze the soil samples:

NWTPH-Dx: Diesel and oil range total petroleum hydrocarbons (TPH)

NWTPH-Gx: Gasoline (volatile) range TPH

EPA Method 8260: Benzene, toluene, ethylbenzene, and xylenes (BTEX constituents), Methyl tert-butyl ether (MTBE), and Volatile Organic Compounds (VOCs)

EPA Method 8270: Semi Volatile Organic Compounds (SVOCs)

EPA Method 6020/7169/7471/Calc-Cr3: RCRA 8 Metals (Arsenic, Barium, Cadmium, Chromium (total), Chromium (VI), Chromium (III), Lead, Mercury, Selenium, and Silver)

3.1.2 Groundwater Sample Analysis

Groundwater samples were collected from all monitoring wells at the Site in November 2020 (MW-1 through MW-14), excluding wells MW-4 and MW-5 which are no longer accessible. The following laboratory methods were used to analyze the groundwater samples:

NWTPH-Dx: Diesel and oil range TPH
NWTPH-Gx: Gasoline range TPH
EPA Method 8260: VOCs
EPA Method 8270 SIM: Naphthalenes and cPAHs
EPA Method 200.8/245.1: Dissolved RCRA 8 Metals (Arsenic, Barium, Cadmium, Chromium (total), Lead, Mercury, Selenium, and Silver)

3.1.3 Waste Analysis

One composite soil sample was collected in 2021 from the Piezometer P-1 soil boring location. The sample was a composite of material collected from 3 to 10 feet bgs from the contaminated soil/landfill waste material. The composite sample was collected in order to determine if the material designates as dangerous waste for management/disposal purposes.

The following laboratory methods were used to analyze the composite soil sample:

NWTPH-Dx: Diesel and oil range TPH
NWTPH-Gx: Gasoline (volatile) range TPH
EPA Method 8021: BTEX constituents and MTBE
EPA Method 8270 SIM: SVOC
EPA Method 8260: VOC
EPA Method 6020/7471: RCRA 8 metals
EPA Method 8082: Polychlorinated Biphenyls (PCB)
EPA Method 6020/1311 and 7470/131: TCLP RCRA 8 metals
EPA Method 8270/1311: TCLP SVOC

EPA Method 8260/1311: TCLP VOC
EPA Method 8151: TCLP Herbicides
EPA Method 9045: pH

A bioassay test was used to verify if the waste meets the dangerous waste toxicity criteria per WAC 173-303-100(5)(c). The contaminated soil/landfill waste composite sample was sent to Rainier Environmental Laboratory for the acute fish toxicity test (Method 80-12).

3.2 ANALYTICAL RESULTS

The remedial investigation work described herein provided further information related to the extent of contamination at the Site.

3.2.1 Soil Sample Results

Twenty-eight soil samples were collected in 2020 (B-1-20 through B-10-20, MW-13, and TP-1-20 through TP-7-20, at various depths) and two soil samples were collected in 2021 (B-2-21 at 5 ft and B-3-21 at 7.5 ft) to further delineate the extent of soil contamination at the Site. The soil boring and test pit locations are shown on Figure 6. Figure 6 shows all soil sample locations that have historical contaminant concentrations which exceeded the applicable cleanup levels (refer to Section 6.2).

The soil sample descriptions, depths of collection and field screening results are included in Table 1, and the laboratory analytical data are summarized in Table 2. The original laboratory analytical data reports are provided in Appendix F.

The soil sample collected at 12.5 feet bgs from boring B-3-20 contained diesel and oil range TPH and lead at concentrations which exceeded the MTCA Method A cleanup levels. The soil sample collected at 10 feet bgs from boring B-9-20 contained cadmium at a concentration which exceeded the MTCA Method A cleanup level. The soil sample collected from Test Pit TP-7-20 at 2 feet bgs contained arsenic at a concentration which exceeded the MTCA Method A cleanup level. No other soil samples collected in 2020 or 2021 contained any constituents at concentrations exceeding the applicable cleanup levels. All samples were analyzed within the prescribed holding times, and sample analytical QA/QC results were within acceptable limits.

3.2.2 Groundwater Sample Results

Groundwater samples were collected from all monitoring wells in November 2020, excluding wells MW-4 and MW-5 which are no longer accessible. The groundwater monitoring well locations are shown on Figure 7. The 2020 groundwater laboratory analytical data are summarized in Table 3, and the groundwater chemistry data are summarized in Table 4. The original laboratory analytical data reports are provided in Appendix G.

Monitoring well MW-3 contained diesel range TPH at a concentration which exceeded the MTCA Method A cleanup level. Monitoring wells MW-2, MW-7, and MW-9 contained oil range TPH at concentrations which exceeded the MTCA Method A cleanup level. Monitoring wells MW-2, MW-10, and MW-11 contained arsenic at concentrations which exceeded the MTCA Method A cleanup levels.

Figure 7 shows all wells that have historical contaminant concentrations which exceeded the applicable cleanup levels (refer to Section 6.3).

3.2.3 Waste Analysis Results

The contaminated soil/landfill waste material from the Site was evaluated in two parts. First, the *P-1 Composite* soil sample collected in 2021 was evaluated individually, and second, all historic soil samples collected from within the known contaminated area (Area 1) were evaluated as a whole. Flowcharts showing the evaluation outcomes are provided in Appendix H.

In both cases, the soil does not classify as hazardous waste under RCRA regulations, for the following reasons:

- P and U codes are not applicable as this is not a spill of an unused product on the P or U lists.
- F and K codes are not applicable mainly because a) the sources and industrial activities specified in the lists do not match identifiable historical activities on the site, and b) the activities occurred before RCRA regulations were enacted so those codes would likely not apply.
- D codes are not applicable because the TCLP (Toxicity Characteristic Leaching Procedure) sample results were all below specified limits.

The samples were evaluated for Washington state-only designations. The state-only toxicity criteria were evaluated by both the "book designation procedure" (WAC 173-303-100(5)(b)) and the bioassay test (WAC 173-303-100(5)(c)). The following assumptions and results were used for the Washington state designation for Area 1 soil:

- For the book designation of toxicity criteria, the detected results of all soil samples from Area 1 were averaged. Non-detects were ignored, biasing the results high. This resulted in a designation as a WT02 dangerous waste. Due to the variability in contaminant concentrations, the book designation was also performed using the maximum detected concentration for each analyte as a 'worst-case scenario' - the soil still designated as WT02.
- Analytical results for pH, Polycyclic Aromatic Hydrocarbons (PAHs), and Halogenated Organic Compounds (HOCs) show that related Washington-only codes are not applicable.
- The WPCB code is not applicable since it only applies in limited circumstances that are not met here.

The same process was followed to evaluate sample *P-1 Composite* for Washington state designation, and the sample did not designate as state-only dangerous waste.

Per WAC 173-303-100(c) soil sample *P-1 Composite* was analyzed by bioassay by means of the acute fish toxicity test. The bioassay test results for soil sample *P-1 Composite* showed that there was no mortality during the test. Based on the results, the *P-1 Composite* sample does not designate as a state-only dangerous waste for toxicity criteria (see Rainier Lab report in Appendix H).

Per WAC 173-303-100(d), “if the designation acquired from the book designation and bioassay do not agree, then bioassay data will be used to designate a waste.” Both the book designation and the bioassay of soil sample *P-1 Composite* shows the material does not designate as state-only dangerous waste under the toxicity criteria. No other bioassays were conducted, so it is unknown at this time if other contaminated locations in Area 1 would have designated as non-dangerous via the acute fish toxicity test.

After completing the preliminary evaluation of both soil sample *P-1 Composite* and the historic soil samples collected from Area 1, it is likely that soil excavated from the Site would designate either as non-dangerous or as WT02. If soil from a particular area designates as WT02 from the book designation procedure, then a bioassay could be run to determine if the designation could be reduced to non-dangerous.

4.0 NATURAL CONDITIONS

4.1 SITE GEOLOGY

The geology underlying the property has been researched using multiple government publications (U.S. Department of Agriculture [USDA], 1992; WSDNR, 2000; Easterbrook, 1976a, 1976b and 1976c). Site specific information has been collected from soil borings drilled and test pits excavated at the subject property and at the neighboring wastewater treatment plant.

Soils in the area of the subject property are described in the Soil Survey of Whatcom County Area, Washington (USDA, 1992). The soil on the subject property is described as Urban Land with 0 to 3 percent slopes. Urban Land consists of areas covered by streets, parking lots, and other structures that so obscure the soils that identification of the soil series is not feasible.

The bedrock basement beneath the property is the Padden Member of the Chuckanut Formation (WSDNR, 2000). Infiltration is very poor and the unit yields little groundwater. Foundation stability is described as good, and the response to seismic shaking is low (Easterbrook 1976b, 1976c).

Field observations made during the excavation of test pits and drilling of soil borings indicate that the property is underlain by a veneer of Bellingham Glaciomarine Drift of the Everson Interstade which overlies the Chuckanut Formation. The Glaciomarine Drift is overlain in places by several feet of imported fill material, reworked native material, or industrial debris (bricks, glass, or metal waste).

The Bellingham Glaciomarine Drift consists of moderately sorted to unsorted diamicton with lenses and discontinuous beds of moderately to well-sorted gravel, sand, silt, and clay. Bedding is massive to poorly stratified. Color is blue-gray to olive-gray depending on oxidation state. Thickness ranges to as much as 90 meters. The unit is consistently firm to very hard, depending on moisture content. The unit is predominantly dry to slightly moist. The unit acts as an aquitard, impeding vertical migration of contaminants.

In general, the geologic sequence encountered at the property consists of:

- 0 to ~1 ft. – Imported Fill. The material consists of brown, coarse sandy gravel to gravelly sand that is typically loose and moist. In places this material may be reworked native GMD. This material is associated with property preparation and ground leveling work done in preparation for building construction.
- 0 to ~8 ft. – Miscellaneous Fill. Miscellaneous fill is consistently encountered on the western edge of the property (the Site). It typically consists of what is believed to be discarded waste material from the subject property's historical businesses. Types of material encountered in the unit are bricks, metal shavings, glass, iron rods and broken chain links, old rope, fiberglass matting, construction debris (plywood pieces, cut/trimmed 2x4s, etc.), and coarse sand and gravel.
- ~1 to ~12 ft – Bellingham Glaciomarine Drift. The material is described above. Typically the GMD material encountered at the property was described as dry to moist. It consisted of clayey silt with minor gravel grading downwards to silty sand with gravel.
- ~12 ft and below – Historic tidal marsh and beach deposits. These deposits consist generally of fine to coarse sands with gravels with shell fragments. Peat deposits are typically organic rich silty fine sands and silts.

Three geologic cross-sections showing inferred subsurface conditions at the property were included in the 2016 RI/FS Report (WES, 2016). The cross section are included in Appendix I.

4.2 SITE HYDROGEOLOGY

The hydrogeology at the subject property has been characterized through the installation of fourteen groundwater monitoring wells. The monitoring well locations are shown on Figure 8. The wells were installed to a depth of approximately 15 feet bgs, with the well screens extending from 5 to 15 feet bgs. The wells were screened across the uppermost unconfined aquifer which occurs in the upper weathered portions of the glaciomarine drift and the miscellaneous fill material (where present). The 2020 soil borelogs (and historical borelogs) are included in Appendix C and the 2020 monitoring well construction diagrams (and historical well construction diagrams) are included in Appendix E.

The elevations of the top of the monitoring well casings were surveyed by a licensed surveyor and depth-to-water measurements were converted to groundwater elevation data in order to determine the groundwater flow direction and gradient at the property. Depth-to-water in the monitoring wells in November 2020 ranged from approximately 1 to 10 feet below ground surface.

The data indicate that the groundwater flows in a northwesterly direction. The groundwater elevation data collected in November 2020 are presented as groundwater elevation contours on Figure 8.

Groundwater surface elevations have historically ranged from approximately 10 to 18 feet above mean sea level in wells located east of the sanitary sewer line shown on Figure 8. Groundwater surface elevations have historically ranged from approximately 6 to 9 feet above mean sea level in wells located west of the sanitary sewer line shown on Figure 8. The seasonal groundwater elevation fluctuations are evident on Figure 9 from 2007 through 2011, when quarterly sampling was being conducted at the Site. Groundwater elevations from 2007 through 2011 generally follow the seasonal hydrologic cycle, with lowest elevations occurring in late summer/fall. The seasonal groundwater fluctuations are assumed to still occur, but are not as apparent on the chart since monitoring has only been conducted annually at the same time of year since 2014.

4.2.1 2021 Slug Test Analysis

Slug tests were conducted on monitoring wells in January 2021 in order to provide an estimate of hydraulic conductivity in the shallow aquifer. Prior to initiating a slug test the static water level in the well was measured and verified to be at a steady level. The slug tests were performed using the rising-head test where a slug was quickly removed from the well causing a near instantaneous drop in the water level. Transducer readings were monitored until the water level returned to its near static position.

Microsoft Excel worksheets provided in USGS Open-File Report 02-197 (2002) were used to evaluate the data using the Bouwer and Rice method (1976). Water levels in monitoring wells MW-8 and MW-9 recovered extremely rapidly, indicating that the wells were installed in the fill material. For this reason, the hydraulic conductivity was not estimated for these wells.

The estimated values of hydraulic conductivity for wells are provided in Table 4. The hydraulic conductivity in the wells ranged from 0.01 ft/day to 3.0 ft/day. Slug test calculation Excel worksheets are included in Appendix J.

5.0 CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) was developed to show the historic release(s) of hazardous substances at the Site and the subsequent migration of those substances in environmental media (Figure 10). The Site is defined by the presence of soil and groundwater contamination associated with the former use of the subject property as a brick manufacturer, a chain and forge facility, and a boat building and maintenance yard. The Site is located along the adjoining borders of the 200 and 210 McKenzie Avenue properties. Based on observations made during the environmental investigations, it appears that waste materials from the brick manufacturer and chain and forge facility were dumped into a depression located in that area.

The results of the investigations conducted at the Site indicate that the COCs are primarily related to the release of petroleum compounds from the former oil storage tanks, the burial of miscellaneous debris (glass/brick/metal) from past industrial uses of the property, and boat maintenance activities. The petroleum compounds released from the oil storage tanks impacted the miscellaneous fill material. Perched water flowing through the petroleum impacted miscellaneous fill material became impacted by dissolved arsenic and dissolved iron.

5.1 SOIL PATHWAY

During investigations conducted at the Site, soil samples were found to contain the following above the screening levels:

- Gasoline Range TPH
- Diesel/Oil Range TPH
- BTEX Constituents: Benzene and xylenes
- Metals: antimony, cadmium, chromium, copper, lead, nickel, zinc
- VOCs: methylene chloride
- SVOCs: Naphthalenes (1-methylnaphthalene, 2-methylnaphthalene, and total naphthalenes), cPAHs

A preliminary waste designation has been completed for the contaminated soil/landfill waste at the Site. The designation indicates that contaminated soil/landfill waste in Area 1 at the site is likely to designate either as WT02 dangerous waste or as non-dangerous waste.

Soil contamination at the Site is primarily located on the western portion of Parcel #370202452038 and the eastern portion of Parcel #370211403538. The soil contamination is associated with the property's former use as a brick manufacturer, a chain and forge facility, and a boat building and maintenance yard. The approximate lateral extent of petroleum impacted soil is shown on Figure 3 and 6.

Impacted soil has been found in five areas at the Site (labeled on Figure 11). Soil impacted with contaminants of concern at concentrations which exceed the screening levels has been found ranging from the surface to 12.5 feet bgs at five locations. Area 1 comprises the majority of the impacted soil and extends to an average depth of 8 feet bgs, equating to approximately 11,547 tons of impacted soil. The assumed average 8 foot depth of contamination for Area 1 is based on laboratory analytical data and visual evidence collected in 2007 during the test pit excavation work (Appendix A and Appendix D). Areas 2, 3 and 4 extend to approximately 2 feet bgs, equating to approximately 18 tons, 12 tons, and 21 tons of impacted soil (respectively). Area 5 extends to approximately 3 feet bgs, equating to approximately 97 tons of impacted soil. In total, it is estimated that approximately 11,700 tons of impacted soil are located at the Site.

The primary potential exposure pathway/receptor for contaminants in the soil is human and/or terrestrial dermal contact or ingestion of soil particulates. Being that the property is primarily capped by gravel or paved surfaces, the most likely exposure scenario would be during site maintenance or construction activities that disturb the existing structures or cap (e.g. soil excavation). There is no indication that soil contamination extends off-property, therefore no complete exposure pathway exists for off-site receptors.

5.2 GROUNDWATER PATHWAY

During investigations conducted at the site, groundwater samples were found to contain the following analytes at concentrations above the screening level:

- Diesel/Oil Range TPH
- Metals (dissolved): arsenic and iron

Groundwater contamination appears to have moved in the direction of groundwater flow at the Site (generally northwest). The approximate lateral extent of petroleum impacted groundwater is shown on Figure 7.

One piezometer was installed in the known area of contamination/waste in July 2021. The piezometer was installed to determine if any LNAPL (or "free product") is present on the water table. Monitoring wells previously installed at the Site have not shown the presence of LNAPL, however, the water elevation in the wells extends above the wells screens which could impact the ability to observe LNAPL. The piezometer was screened from the bottom of the landfill material to 2 feet below the ground surface. The piezometer was developed on 7/13/21 and checked on 7/21/21, and no free product was observed on either date.

The primary potential exposure pathway/receptor for contaminants in the groundwater is human, terrestrial, and/or ecological dermal contact, ingestion, or plant direct uptake of contaminated groundwater. The most likely exposure scenario would be during site maintenance or construction that contacts groundwater. There is currently no use of groundwater on the property for potable purpose nor is there a reasonable likelihood of future use of property groundwater for potable use. Monitoring wells located downgradient of the impacted soil areas have contained constituents of concern at concentrations above the target cleanup levels (Section 6.3), indicating there is potential for a groundwater exposure pathway for off-site receptors and discharge to surface water.

6.0 CLEANUP STANDARDS

The selected cleanup levels for the Site are presented in the following sections.

6.1 TERRESTRIAL ECOLOGICAL EVALUATION

In order to confirm the site is not a threat to the environment, a terrestrial ecological evaluation (TEE) was conducted at the site in accordance with WAC 173-340-7490. The goal of the TEE is to determine if contaminants detected at the site pose a threat to terrestrial ecological receptors.

A simplified Terrestrial Ecological Evaluation (TEE) (WAC 173-340-7492) was included in the 2016 Remedial Investigation report (WES, 2014). The results of the TEE indicated that the site did not qualify for a primary exclusion (WAC 173-340-7491) because there were more than 1.5 acres of contiguous undeveloped land located within 500 feet of the site. A simplified TEE (WAC 173-340-7492) was conducted and it was determined that the site qualified for a secondary exclusion because land use at the site and surrounding area makes substantial wildlife exposure unlikely (WAC 173-340-7492 (2)(a)(ii)).

6.2 SOIL CLEANUP STANDARDS

Target soil CULs for this Site are based on MTCA Method A. Method A soil cleanup levels are provided in WAC 173-340, Table 740-1 (Ecology, 2013). For contaminants that do not have a Method A CUL but do have a Method B standard value which is protective of human health, the latter will be set as the target CUL. The soil CULs for contaminants of concern at the Site are included in the data tables.

6.3 GROUNDWATER CLEANUP STANDARDS

Per WAC 173-340-720, groundwater cleanup levels are based on the highest beneficial use and the reasonable maximum exposure expected to occur under current and potential future property use conditions. The Site groundwater is not a current or reasonably likely future source of drinking water, however, for purposes of this

investigation, cleanup levels protective of groundwater as drinking water have been calculated.

Target groundwater CULs for this Site are based on MTCA Method A. Method A groundwater cleanup levels are provided in WAC 173-340, Table 720-1. For contaminants that do not have a Method A CUL but do have a Method B standard value which is protective of human health, the latter will be set as the target CUL. The groundwater CULs for contaminants of concern at the Site are included in the data tables.

7.0 REMEDIATION ALTERNATIVES

Five areas of impacted soil have been identified at the Site (labeled on Figure 11). Impacted soil has been found ranging from the surface to approximately 12.5 feet bgs. Area 1 comprises the majority of the impacted soil and groundwater and is assumed to extend to an average depth of 8 feet bgs, equating to approximately 11,547 tons of impacted soil. The current soil volume estimate is slightly larger than the estimate of 10,624 tons presented in the 2016 RI/FS based on the results of expanded soil sampling conducted in 2020 and 2021. Areas 2, 3 and 4 extend to approximately 2 feet bgs, equating to approximately 18 tons, 12 tons, and 21 tons of impacted soil (respectively). Area 5 extends to approximately 3 feet bgs, equating to approximately 97 tons of impacted soil. In total, it is estimated that approximately 11,700 tons of impacted soil are located at the Site.

Groundwater at the Site has historically contained diesel range TPH, oil range TPH, arsenic, and dissolved iron at concentrations which exceeded the target cleanup levels. Figure 7 shows all wells that have historical contaminant concentrations which exceeded the applicable cleanup levels. Contaminated groundwater entering areas of soil excavation would be removed from the Site during excavation dewatering activities. Contaminated groundwater remaining outside of the areas of soil excavation would be left in place and monitored to track the natural attenuation of groundwater contaminants which would occur after the contaminated soil source material is removed.

The planned redevelopment of the property is shown on Figure 11. Per the current plan only portions of the planned redevelopment would be constructed within the impacted areas (the Site). Based on the planned redevelopment of the property, two remedial alternatives were evaluated. The remedial alternatives presented in this document have been updated from the remedial alternatives presented in the 2016 RI/FS.

7.1 REMEDIAL ALTERNATIVE 1

Remedial Alternative 1 includes partial excavation of the contaminated soil/landfill waste (only in areas where redevelopment will require excavation), installation of an asphalt and/or concrete cap over the remainder of the Site, preparation of an environmental covenant, and monitored natural attenuation of groundwater contamination.

Remedial Alternative 1 leaves in place any identified contamination not located within a planned building footprint. Based on the current understanding of the redevelopment plan, as shown on Figure 11 (and assuming an average 8-foot depth of contamination), approximately 6,600 tons of impacted soil would be removed from the property. The areas to be excavated are shown on Figure 12.

The estimated soil quantity was calculated based on the assumption of vertical excavation sidewalls. A cost for excavation shoring has not been included in the cost estimate at this time. If non-shored vertical excavation sidewalls are determined not to be feasible, excavation sidewalls would be sloped, and the volume of excavated soil would increase.

A critical assumption underlying the Alternative 1 volume estimate is that the extent of contaminated soil within a given building footprint will be as shown in Figure 12. Thus, it is assumed that additional contamination will not be identified within a building footprint, which would increase the amount of contaminated soil that must be disposed of at a permitted disposal facility.

In order to leave contaminated soil in place, an impermeable cap would be required to be constructed over the remainder of the contaminated area. The installation of a permanent asphalt or concrete cap may limit landscaping possibilities around some of the proposed new buildings.

An environmental covenant would be required as part of this remedial alternative. An environmental covenant is an institutional control implemented as part of the Site remedy. Institutional controls are administrative or legal measures used to prevent activities that may compromise the integrity of a cleanup action. They are meant to prevent exposure to contamination remaining at the Site. Institutional controls may include environmental covenants (also known as “deed restrictions”), zoning restrictions, public health advisories, or other administrative tools. The most common institutional

control is an environmental covenant. It should be noted that per WAC 173-340-440(6) "Cleanup actions shall not rely primarily on institutional controls and monitoring where it is possible to implement a more permanent cleanup action for all or a portion of the Site". Based on this requirement, it is important to note that Ecology is under no obligation to approve the use of an environmental covenant in lieu of a complete excavation. Ecology addresses the use of environmental covenants on a case-by-case basis.

An Ecology approved Site Management Plan would be required as part of the environmental covenant. The Site Management Plan would be negotiated with Ecology and would specify requirements related to groundwater monitoring, cap maintenance, future development activities, etc.

Groundwater contamination would be addressed by monitored natural attenuation as part of this remedial alternative. Since Remedial Alternative 1 leaves a significant volume of contaminated soil in place, it is presumed that natural attenuation of groundwater may not result in contaminant concentrations meeting the target cleanup levels for an extended period of time, and therefore groundwater monitoring would be required for a significant amount of time. For purposes of this planning level cost estimate it is assumed that groundwater monitoring would be required for a minimum of 10 years.

The estimated planning level construction cost to complete Remedial Alternative 1 (in 2021 dollars) ranges from approximately $2.7M to $2.9M. A breakdown of the cost estimate is provided in Appendix K. A range is provided, dependent on whether the material characterizes as dangerous waste or not. It is possible that portions of the removed material may characterize as dangerous waste while other portions may not. For purposes of this cost estimate it was assumed that either 25% of the waste designates as WT02 (Alternative 1a) or that 100% of the waste designates as WT02 (Alternative 1b).

7.2 REMEDIAL ALTERNATIVE 2

Remedial Alternative 2 includes complete removal of all contaminated soil/landfill waste at the Site and monitored natural attenuation of groundwater contamination. The total volume of contaminated soil at the Site is estimated at 11,700 tons. The areas to be excavated are shown on Figure 12.

The estimated soil quantity was calculated based on the assumption of vertical excavation sidewalls. A cost for excavation shoring has not been included in the cost estimate at this time. If non-shored vertical excavation sidewalls are determined not to be feasible, excavation sidewalls would be sloped, and the volume of excavated soil would increase.

Since all contaminated soil would be removed from the property there would be no asphalt or concrete cap requirements imposed on the project footprint, and an environmental covenant would not be required as part of Remedial Alternative 2.

A critical assumption underlying the Alternative 2 volume estimate is that final excavation limits will be as shown in Figure 12. Thus, it is assumed that additional contamination will not be identified in the course of remedial excavation, and that post-excavation confirmation samples will not indicate a need for further excavation beyond the pre-determined limits.

Groundwater would be addressed by monitored natural attenuation as part of this remedial alternative. Since Remedial Alternative 2 removes all contaminated soil from the property, it is presumed that natural attenuation of any residual groundwater contamination would be achieved in a reasonable timeframe. For purposes of this planning level cost estimate it is assumed that groundwater monitoring would be required for a minimum of 2 years.

The estimated planning level construction cost to complete Remedial Alternative 2 (in 2021 dollars) ranges from approximately $3.9M to $4.3M. A breakdown of the cost is provided in Appendix K. A range is provided, dependent on whether the material characterizes as dangerous waste or not. It is possible that portions of the removed material may characterize as dangerous waste while other portions may not. For purposes of this cost estimate it was assumed that either 25% of the waste designates as WT02 (Alternative 2a) or that 100% of the waste designates as WT02 (Alternative 2b).

7.3 PRELIMINARY SOIL MANAGEMENT PLAN

A preliminary soil management plan has been prepared assuming the contaminated soil/landfill material can be disposed of offsite at a permitted treatment and disposal facility.

In order to completely characterize the contaminated soil/landfill waste per Ecology guidance the waste designation procedure would need to be completed on approximately 22 soil samples collected from the landfill material (Area 1). The material could be characterized *in-situ* by collecting the soil samples at 22 locations within Area 1. The material could also be characterized after it is excavated and stockpiled onsite, prior to removal from the property.

Regulations require that waste designation be based on "representative" samples, which means "a sample which can be expected to exhibit the average properties of the sample source" (WAC 173-303-040). However, it is also prohibited to dilute the waste in order to get a less dangerous designation (WAC 173-303-150). Therefore, if soil which could be expected to be non-dangerous was mixed with soil that could be expected to be dangerous waste, all of the mixed material must be handled and disposed of as dangerous waste; data from the non-dangerous soil could not be included in the designation procedure. If soil is excavated prior to sampling, it is recommended that soil expected to designate as dangerous waste be kept separate from other soil piles to avoid such a situation.

7.3.1 Excavate and Stockpile Contaminated Soil/Landfill Waste

Contaminated soil/landfill waste will be excavated and stockpiled onsite to allow for dewatering of the material. The dewatered material will be hauled offsite for disposal, presumably either to the RDS station in Ferndale for transportation via rail car, or to the Waste Management transfer station in Seattle. The ultimate disposal option will likely be determined by the winning bid contractor.

7.3.2 Disposal of Excavation Water

The stockpiled material will be dewatered onsite. The preliminary soil management plan assumes the water will be pre-treated onsite (i.e. via settling tanks and/or carbon flow through vessels/filters) and discharged to Post Point. Future remediation assessment is necessary for groundwater dewatering and is planned for future project design phases.

7.3.3 Final Soil Management Plan

Documents which may be required by Ecology to ensure the cleanup complies with MTCA include a Remedial Investigation/Feasibility Study (RI/FS). An RI/FS was prepared and submitted to Ecology in 2016. The FS portion of the document may require revision based on the final remedial option chosen by the City/engineering design team.

A Cleanup Action Plan (CAP) will be prepared prior to implementation of a cleanup action at the Site. The CAP will describe the selected cleanup methods and specify cleanup standards and other requirements. It is based on information generated during the RI/FS and consideration of public comments and community concerns. An Engineering Design Report (EDR) will

also be required to describe specific details for implementation and operation of the selected cleanup action.

Various Permits will be required based on the selected cleanup action. Permits may include SEPA, Shoreline Management Act, Fill and Grade, and others as required by the City or Ecology.

A final Soil Management Plan will be included in the CAP/EDR documents.

7.5 REGULATORY FRAMEWORK

The City has several regulatory options/programs available to it for cleaning up the Site. The City could choose to clean up the Site as an Independent Remedial Action with no Ecology oversight. If the City desires Ecology approval of the cleanup a formal agreement such as a Consent Decree or Agreed Order could be entered into with Ecology. Alternatively, the City could obtain informal technical assistance from Ecology by entering the Voluntary Cleanup Program.

The cost for cleanup of the Site has been estimated to range from $2.7M to $4.3M (Sections 7.1 and 7.2). A potential funding source for remediation of the Site is the Remedial Action Grant Program. The program assists local governments with the funding of investigating and cleaning up facilities that are contaminated with hazardous substances, and provides funding to help local governments plan for property reuse in conjunction with, or as a precursor to, cleanup under Integrated Planning Grants or Independent Remedial Action Grants programs.

8.0 CONCLUSIONS

A site assessment has been conducted at 200/210 McKenzie Avenue in Bellingham, Washington. The City of Bellingham plans to use the property to expand the Post Point facility during the Biosolids Project. The site assessment data and remedial alternatives presented in this document will assist with preparation for the facility expansion.

Five areas of contaminated soil/landfill waste have been identified at the property (labeled on Figure 3). Impacted soil has been found ranging from the surface to approximately 12.5 feet bgs. Based on data collected to date, it is estimated that approximately 11,700 tons of impacted soil are located at the property.

Two remedial alternatives have been presented for consideration. Remedial Alternative 1 includes partial excavation of the contaminated soil/landfill waste and Remedial Alternative 2 includes complete excavation of the soil/landfill waste.

Remedial Alternative 1 includes partial excavation of the contaminated soil/landfill waste (only in areas where redevelopment will require excavation), installation of an asphalt and/or concrete cap over the remainder of the contaminated areas, preparation of an environmental covenant, and monitored natural attenuation of groundwater contamination. Based on the assumptions presented in this report, the planning level construction cost estimate for Remedial Alternative 1 ranges from $2.7M to $2.9M.

Remedial Alternative 1 assumes that 6,600 tons of impacted soil would be removed from the property and that 5,100 tons of impacted soil would remain on the property. Use of Remedial Alternative 1 would mean that an environmental covenant (deed restriction) would be placed on the property. Any subsurface construction work completed in the future would be required to adhere to the restrictions outlined in the environmental covenant and an associated Site Management Plan. Ecology would need to be notified in advance if the impermeable cap constructed over the impacted soil would be disturbed. It should be noted that per WAC 173-340-440(6) “Cleanup actions shall not rely primarily on institutional controls and monitoring where it is possible to implement a more permanent cleanup action for all or a portion of the Site”. Based on this

requirement, it is important to note that Ecology is under no obligation to approve the use of an environmental covenant in lieu of the complete excavation of contaminated soil/landfill waste.

Groundwater contamination would be addressed by monitored natural attenuation. Since Remedial Alternative 1 leaves a significant volume of contaminated soil in place, it is presumed that natural attenuation of groundwater may not result in contaminant concentrations meeting the target cleanup levels for an extended period of time, and therefore groundwater monitoring would be required for a significant amount of time.

Remedial Alternative 2 includes complete removal of all contaminated soil/landfill waste at the property and monitored natural attenuation of groundwater contamination. Based on assumptions presented in this report, the planning level construction cost estimate for Remedial Alternative 2 ranges from $3.9M to $4.3M. Since all contaminated soil would be removed from the property there would be no asphalt or concrete cap requirements imposed on the project footprint, and an environmental covenant would not be required as part of Remedial Alternative 2. Groundwater contamination would be addressed by monitored natural attenuation as part of this remedial alternative. Since Remedial Alternative 2 removes all contaminated soil from the property, it is presumed that natural attenuation of any residual groundwater contamination would be achieved in a reasonable timeframe.

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Prepared for:

City of Bellingham

Prepared by:

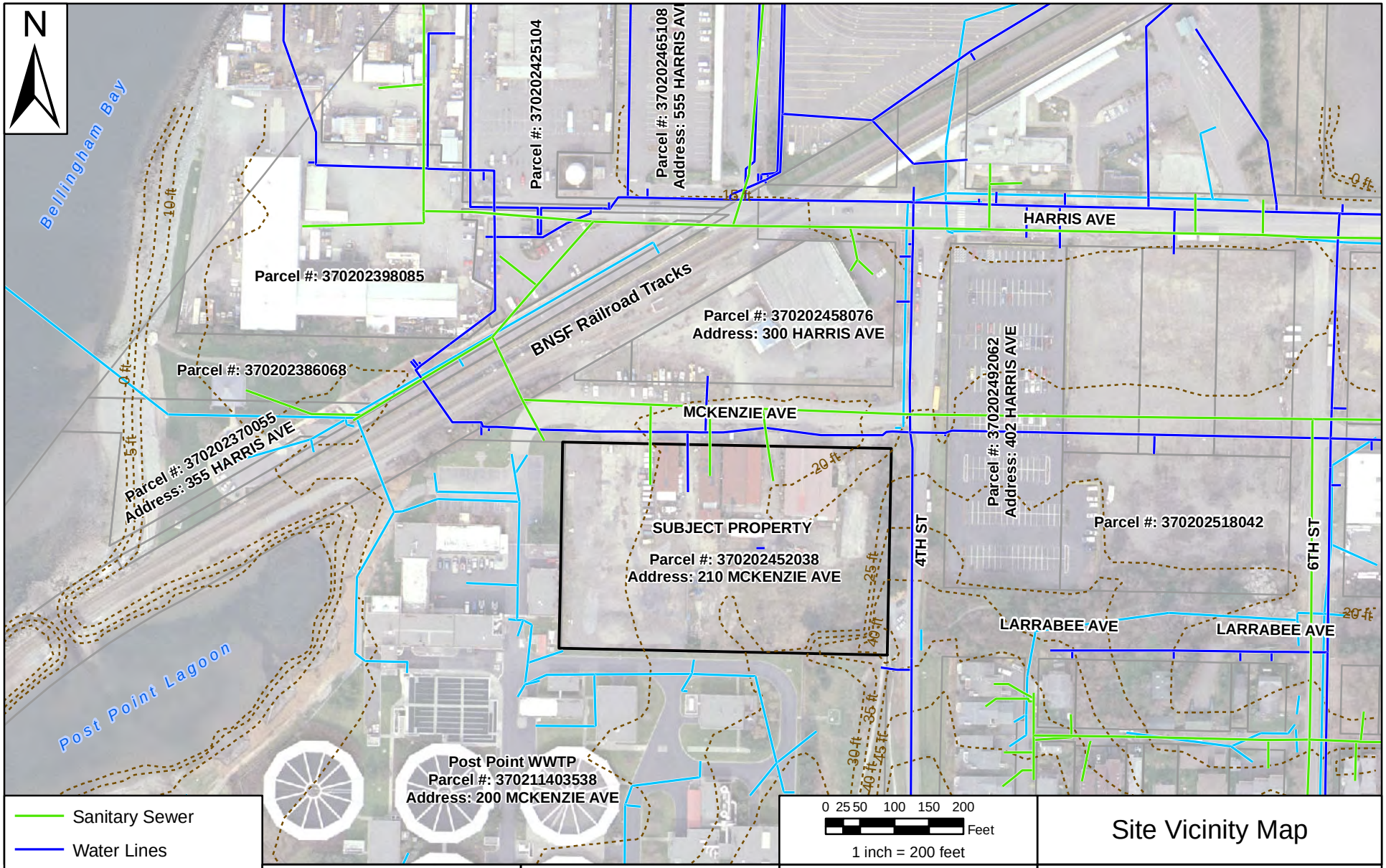
whatcom ENVIRONMENTAL

Site Location Map

Post Point Biosolids

10/04/21

Figure 1



All data are approximate and should be used for relative location reference only.

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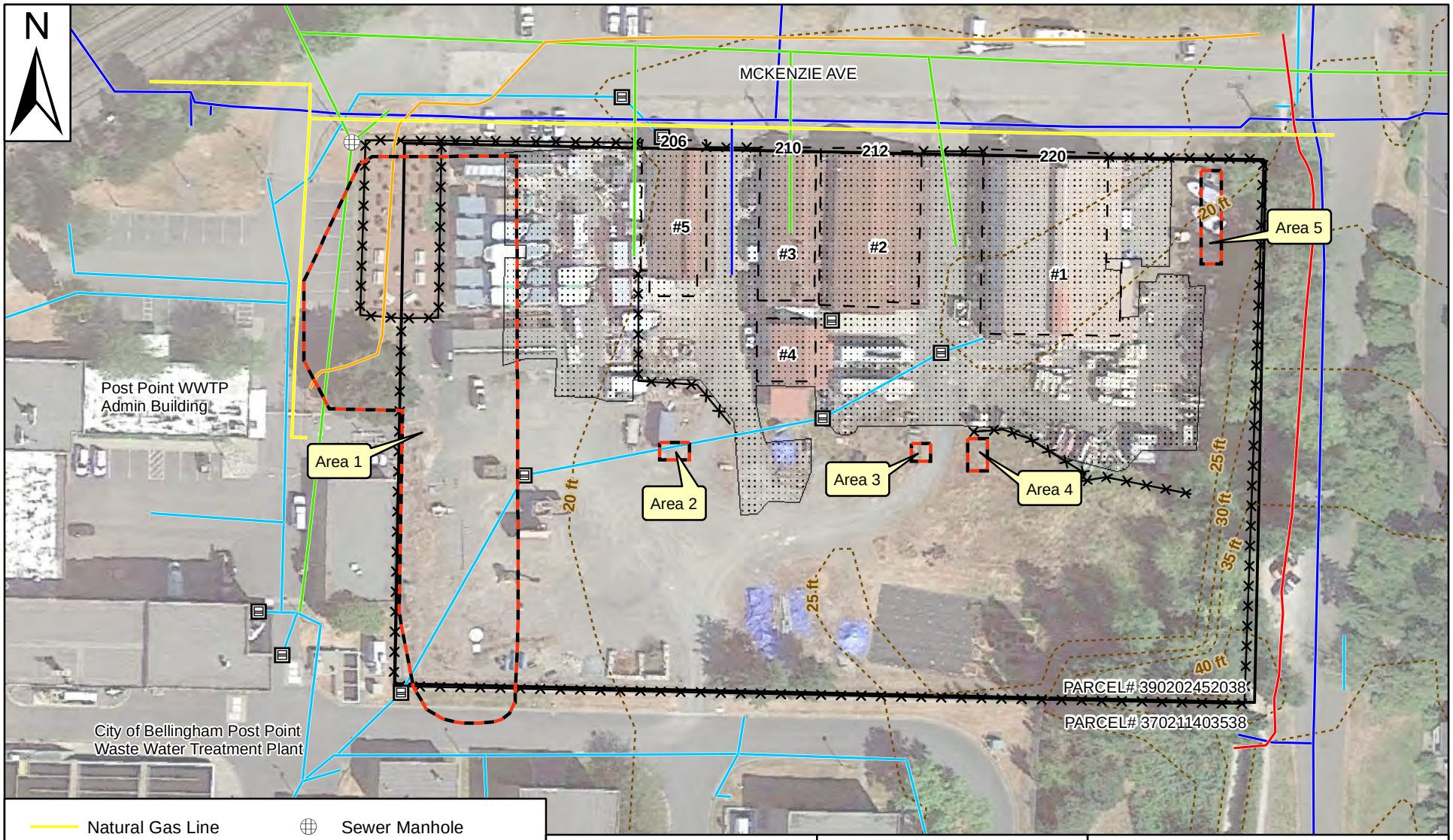
Site Vicinity Map

210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

10/04/21

Figure 2



All data are approximate and should be used for relative location reference only. 2020 aerial photograph (GoogleEarth).

0 20 40 80 Feet

1 inch = 80 feet

Site Map

Prepared for: City of Bellingham

Prepared by: whatcom ENVIRONMENTAL

210 McKenzie Avenue
Bellingham, WA 98225

Post Point WWTP Biosolids

10/04/21

Figure 3

1989 Soil Borings
1989 Test Pit
2007 Surface Soil Sample
2020 Test Pit Locations
2020 Soil Boring Locations
Existing Monitoring Well
Inaccessible Monitoring Well
Surface Remedial Excavations
2007 Test Trenches
2012 Test Pit Locations
Remaining Impacted Areas (Soil)
Fenceline

0 25 50 75 Feet
1 inch = 50 feet

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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City of Bellingham

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Investigation Location Map

210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids
10/04/21

Figure 4

0 25 50 75 Feet

1 inch = 50 feet

Interim Action Location Map

Remaining Impacted Areas (Soil)

Surface Remedial Excavations

Historic Remedial Excavation

Historic Oil Tanks

Historic Structures

Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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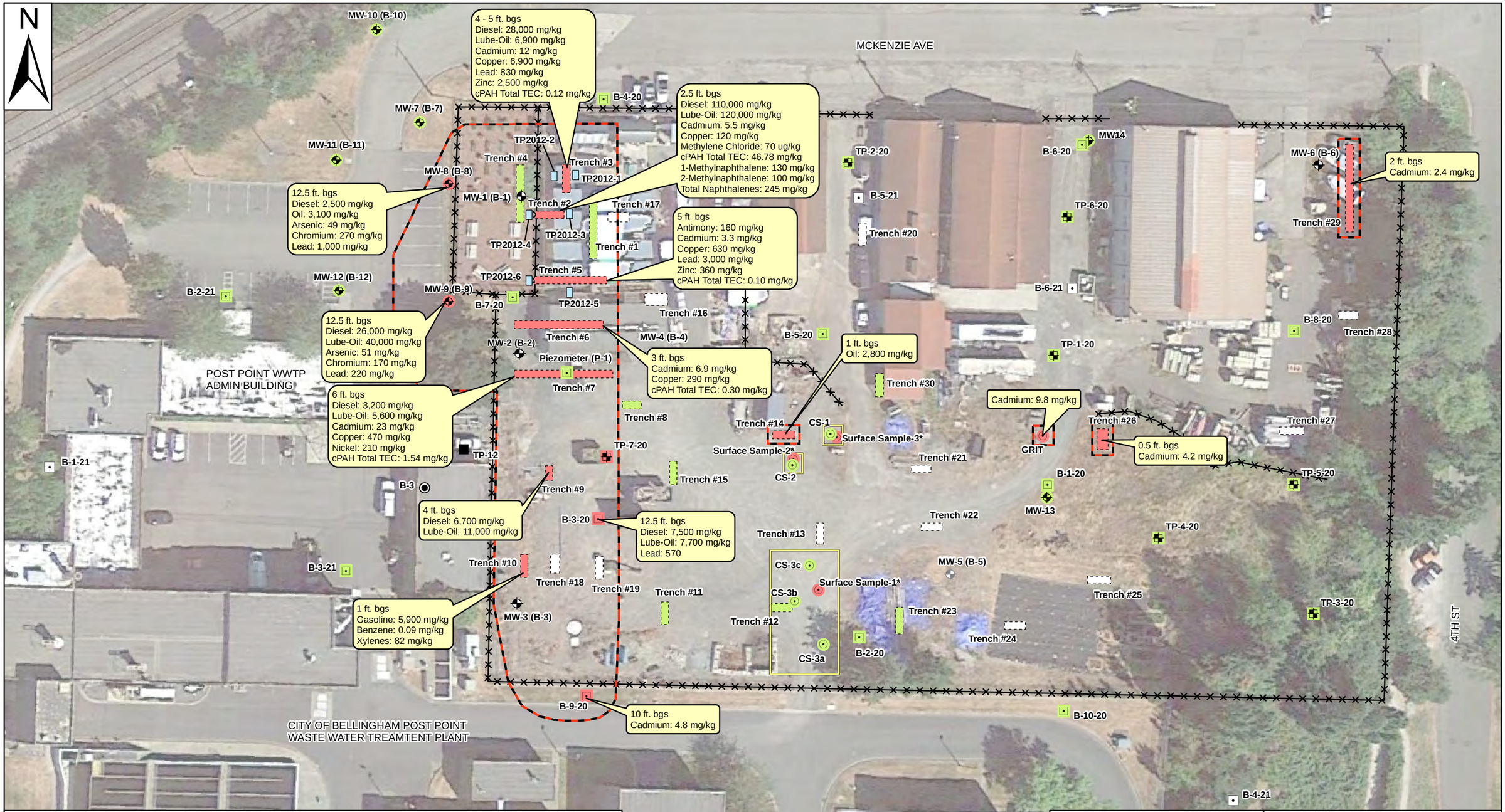
210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

10/04/21

Figure 5



All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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Soil Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

10/04/21

Figure 6

1989 Soil Borings
1989 Test Pit
2007 Surface Soil Sample
2020 Test Pit Locations
2020 Soil Boring Locations
Existing Monitoring Well
Inaccessible Monitoring Well
Result Exceeded CUL
Result Met CUL
Surface Remedial Excavations
2007 Test Trenches
2012 Test Pit Locations
Remaining Impacted Areas (Soil)
Fenceline

0 25 50 75 Feet
1 inch = 50 feet

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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Historical Groundwater Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids
10/04/21

Figure 7

0 25 50 75 Feet

1 inch = 50 feet

Groundwater Elevation Contours (11/18/2020)

Existing Monitoring Well

Inaccessible Monitoring Well

Fenceline

Surface Remedial Excavations

Remaining Impacted Areas (Soil)

Sanitary Sewer Line

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

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210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

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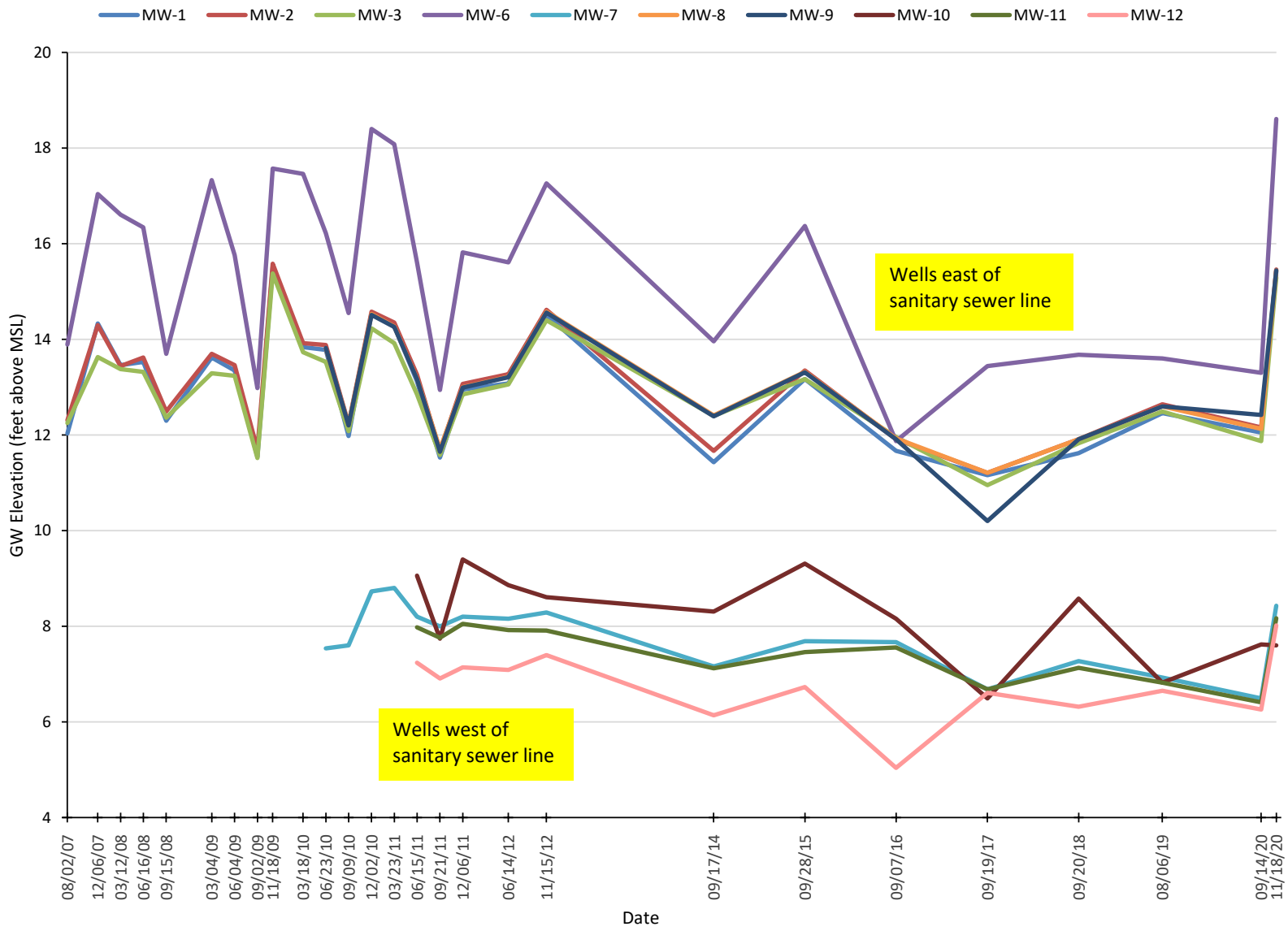
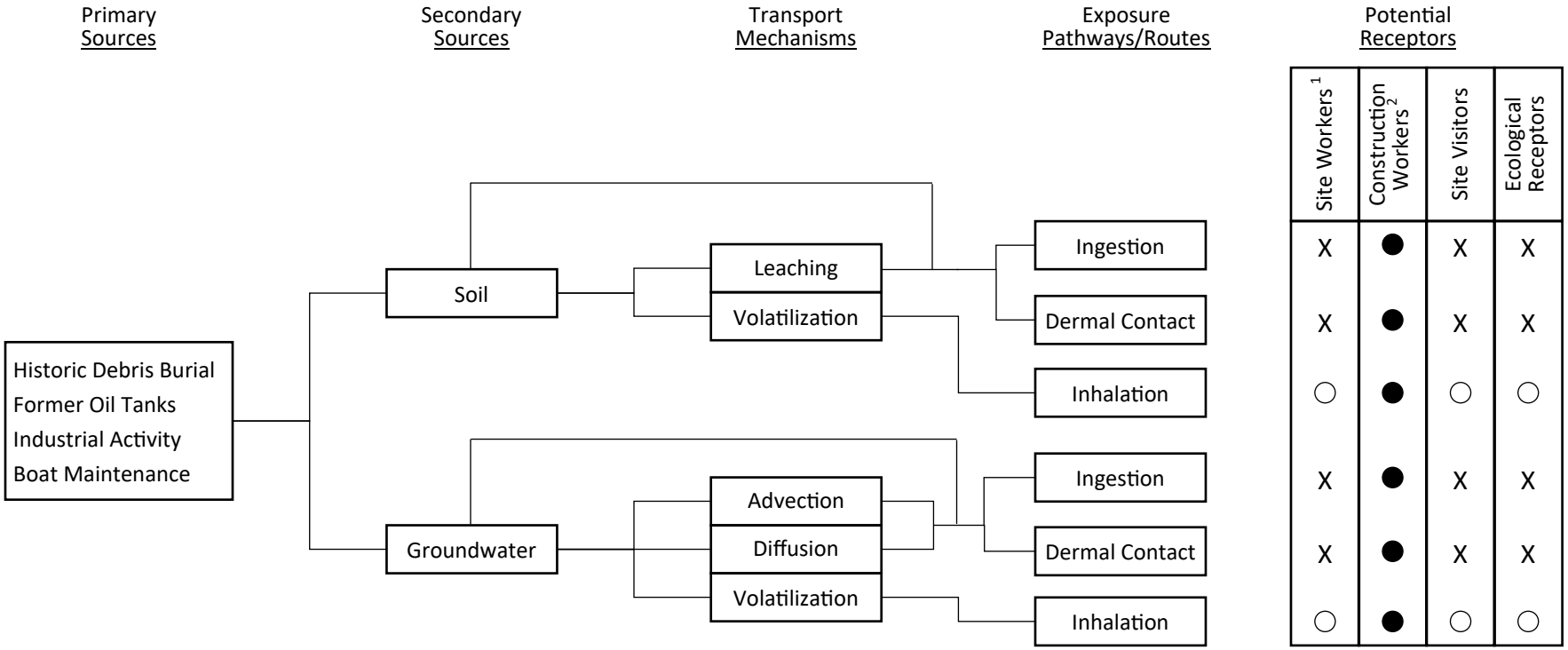
Figure 8



	Prepared for: City of Bellingham	Prepared by: nwhatcom ENVIRONMENTAL	Groundwater Elevation vs Time
			Post Point Biosolids
			10/04/21
			Figure 9



Conceptual Site Model

LEGEND:

- ● Current Complete Pathway
- ○ Potential Pathway
- X Incomplete Pathway

NOTES:

1 - Employees

2 - Construction Workers performing invasive activities.

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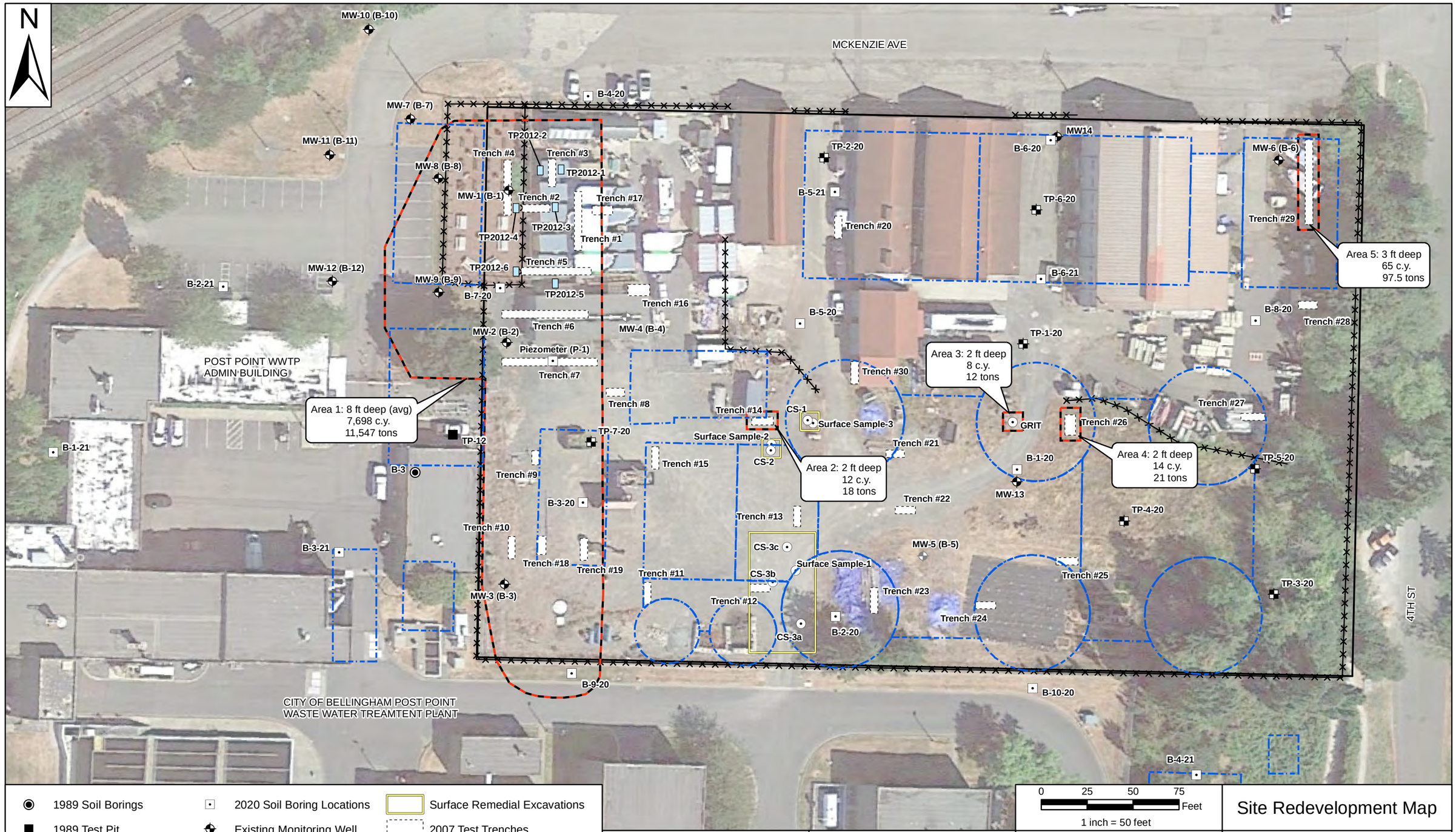
210 McKenzie Avenue, Bellingham, WA 98225

Post Point Biosolids

010/04/21

Figure 10



All data are approximate and should be used for relative location reference only.

2018 aerial photograph (GoogleEarth).

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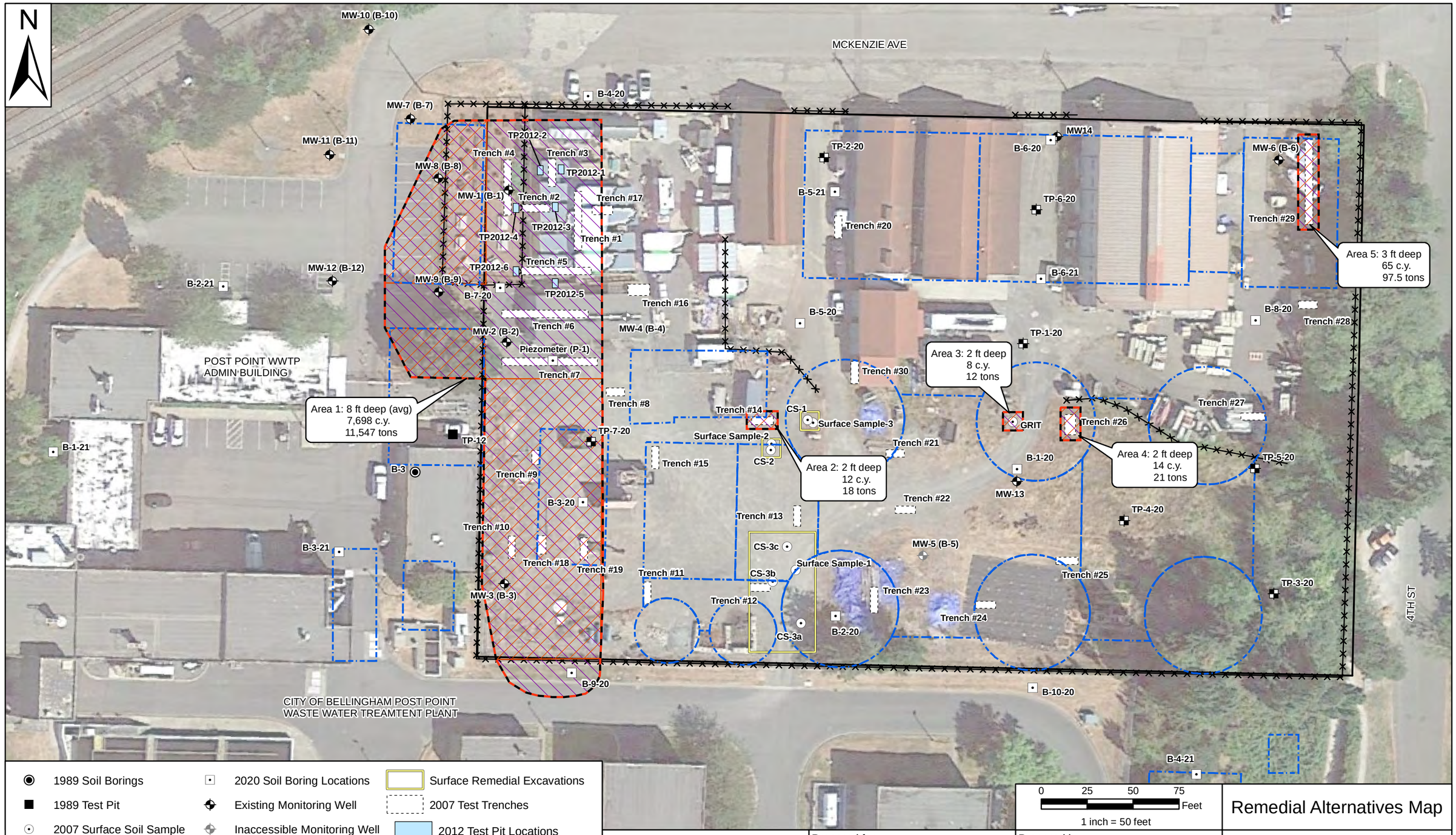
Site Redevelopment Map

210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

10/04/21

Figure 11



Remedial Alternatives Map

All data are approximate and should be used for relative location reference only.

2018 aerial photograph (GoogleEarth).

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210 McKenzie Avenue
Bellingham, WA 98225

Post Point Biosolids

10/04/21

Figure 12

Table 1. 2020-2021 Soil Sample Descriptions - 210 McKenzie Ave

Sample ID	Date	Depth (feet)	Soil Sample Description	PID (ppm)	Sheen Test[a]
Soil Borings - descriptions provided by GeoEngineers					
B-1-20 28.5ft	10/28/2020	28.5	Gray silty fine to medium sand to silt with occasional gravel (dense, wet) (glacially consolidated soils).	4.5	SS
B-1-20 35.5ft	10/28/2020	35.5	Gray silty fine to medium sand to silt with occasional gravel (becomes vey dense).	8.7	SS
MW-13 8 to 9ft	10/28/2020	~8.5	Brown silty fine to medium sand with minor clay, hard, moist.	1.2	VSS
B-2-20 4ft	10/27/2020	4	Brown silty fine to medium sand with gravel (medium dense, moist) (fill).	0.8	VSS
B-2-20 9ft	10/27/2020	9	Gray silty sand with gravel (medium dense, moist) (glaciomarine drift)	0.0	SS
B-3-20 12.5ft	10/28/2020	12.5	Brown fine to medium sand with silt (very loose, wet).	3.4	HS
B-3-20 19ft	10/28/2020	19	Gray clay (very stiff, wet) (glaciomarine drift).	2.4	VSS
B-4-20 5ft	10/29/2020	5	Brown silty fine to medium sand with occasional gravel (medium dense, moist) (fill).	25.8	SS
B-4-20 10ft	10/29/2020	10	Brown fine to medium sand with gravel (medium dense, wet) (fill).	3.9	VSS
B-5-20 9ft	10/29/2020	9	Brown silty fine to medium sand with gravel and occasional cobbles (dense, moist) (fill).	2.5	VSS
B-5-20 11.5ft	10/29/2020	11.5	Brown silty fine to medium sand with gravel and occasional cobbles (dense, wet) (fill).	1.9	VSS
B-6-20 9ft	10/29/2020	9	Brown clayey sand with occasional gravel and cobbles (loose, moist) (glaciomarine drift).	0.0	NS
B-6-20 11.5ft	10/29/2020	11.5	Brown clayey sand with occasional gravel (loose, moist) (glaciomarine drift).	0.0	NS
B-7-20 13ft	10/28/2020	13	Brown gravel with sand, silt and clay (loose, wet).	0.0	VSS
B-7-20 19ft	10/28/2020	19	Gray clay (stiff, wet) (glaciomarine drift)	0.0	VSS
B-8-20 5ft	10/27/2020	5	Brown clay with occasional gravel (stiff, moist) (glaciomarine drift).	0.3	NS
B-8-20 9ft	10/27/2020	9	Brown clay with occasional gravel (stiff, moist) (glaciomarine drift).	1.4	NS
B-9-20 7.5ft	10/27/2020	7.5	Dark gray silt with sand (very soft, wet)	1.7	VSS
B-9-20 10ft	10/27/2020	10	Black silt with organic matter (very soft to medium moist) (fill)	0.3	SS
B-10-20 5ft	10/27/2020	5	Brown fine to medium sand with gravel (dense, moist) (fill).	2.7	SS
B-10-20 11.5ft	10/27/2020	11.5	Brown silty fine to medium sand with gravel (dense, wet) (glacially consolidated soil)	2.0	NS
B-2-21 5ft	7/8/2021	5-7.5	Brown fine to medium silty sand with gravel and trace clay, medium dense, moist (fill)	1.1	NS
B-3-21 7.5ft	7/8/2021	7.5-10	Gray silty sand, medium dense, moist	2.5	NS
P-1 Composite	7/8/2021	composite	Brown silty gravelly sand, loose, moist	0.7	NS

Table 1. 2020-2021 Soil Sample Descriptions - 210 McKenzie Ave

Sample ID	Date	Depth (feet)	Soil Sample Description	PID (ppm)	Sheen Test[a]
Test Pits					
TP-1-20 5ft	11/10/2020	5	Clayey sandy gravelly silt, brown, hard, dry.	1.7	VSS
TP-2-20 5ft	11/10/2020	5	Gravelly sandy silt with cobbles, gray, hard, dry.	1.8	SS
TP-3-20 5ft	11/10/2020	5	Gravelly sandy silt, brown, hard, dry.	1.3	SS
TP-4-20 5ft	11/10/2020	5	Gravelly silty fine to medium sand, brown, hard, moist.	1.3	SS
TP-5-20 5ft	11/10/2020	5	Sandy gravelly silt, brown, hard, dry.	0.8	VSS
TP-6-20 4.75ft	11/10/2020	4.75	Sandy gravelly clayey silt, brown, hard, moist.	1.1	VSS
TP-7-20 2ft	11/10/2020	2	Fill material consisting of rusty colored sandy gravel, black sandy metal shavings (sand blast grit) and paint flakes, tan refractory brick chunks, metal rods, springs, steel shavings, and thick steel plate debris.	1.7	SS

[a] - NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Table 2. 2020-2021 Soil Sample Analytical Results - 210 McKenzie Ave

Sample/Boring ID	Date	NWTPH-Gx Volatile Range mg/kg	NWTPH-Dx Diesel Range mg/kg	NWTPH-Dx Oil Range mg/kg	Volatile Organic Compounds (VOC) (EPA-8260) Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	All Other VOCs mg/kg	EPA-8270 All SVOCs mg/kg	EPA-6020 Arsenic[b] mg/kg	EPA-6020 Barium mg/kg	EPA-6020 Cadmium mg/kg	EPA-6020 Chromium mg/kg	Calc-Cr3 Chromium (III) mg/kg	EPA-7196 Chromium (VI) mg/kg	EPA-6020/1311 Chromium (TCLP) mg/L	EPA-6020 Lead mg/kg	EPA-6020/1311 Lead (TCLP) mg/L	EPA-7471 Mercury mg/kg	EPA-6020 Selenium mg/kg	EPA-6020 Silver mg/kg
MTCA Method A Cleanup Level:		100/30[a]	2,000	2,000	0.03	7	6	9	--	--	20	--	2	--	2,000	19	--	250	--	2	--	--
MTCA Method B Cleanup Level:		--	--	--	18	6,400	8,000	16,000	--	--	0.67	16,000	80	--	120,000	240	--	--	--	--	400	400
B-1-20 28.5ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.4	88	0.17	64	64	ND(<5.0)	NA	3.5	NA	0.042	ND(<1.0)	ND(<0.10)
B-1-20 35.5ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.2	56	0.12	37	37	ND(<5.0)	NA	2.4	NA	0.039	ND(<1.0)	ND(<0.10)
B-2-20 4ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	63	0.16	47	47	ND(<5.0)	NA	3.4	NA	0.089	ND(<1.0)	ND(<0.10)
B-2-20 9ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	2.7	55	0.15	49	49	ND(<5.0)	NA	2.7	NA	0.033	ND(<1.0)	ND(<0.10)
B-3-20 12.5ft	10/28/2020	ND(<3.0)	**7,500**	**7,700**	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	15	90	1.6	290	290	ND(<5.0)	ND(<0.031)	**570**	0.13	0.330	ND(<1.0)	1.2
B-3-20 19ft	10/28/2020	ND(<3.0)	160	160	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	8.3	100	0.24	67	67	ND(<5.0)	NA	61	NA	0.290	ND(<1.0)	0.16
B-4-20 5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	60	ND(<0.10)	74	74	ND(<5.0)	NA	2.6	NA	0.021	ND(<1.0)	ND(<0.10)
B-4-20 10ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.2	52	0.11	76	76	ND(<5.0)	NA	2.7	NA	0.034	ND(<1.0)	0.27
B-5-20 9ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	46	0.1	36	35	ND(<5.0)	NA	2.3	NA	0.032	ND(<1.0)	ND(<0.10)
B-5-20 11.5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.3	40	ND(<0.10)	33	50	ND(<5.0)	NA	2.6	NA	0.032	ND(<1.0)	ND(<0.10)
B-6-20 9ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	7.2	110	0.13	50	33	ND(<5.0)	NA	5.4	NA	0.046	ND(<1.0)	ND(<0.10)
B-6-20 11.5ft	10/29/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	6.7	100	0.12	50	50	ND(<5.0)	NA	5	NA	0.045	ND(<1.0)	ND(<0.10)
B-7-20 13ft	10/28/2020	ND(<3.0)	ND(<25)	69	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.7	47	0.14	34	34	ND(<5.0)	NA	32	NA	0.025	ND(<1.0)	ND(<0.10)
B-7-20 19ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5	85	ND(<0.10)	54	54	ND(<5.0)	NA	6.1	NA	0.024	ND(<1.0)	ND(<0.10)
B-8-20 5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	89	ND(<0.10)	50	50	ND(<5.0)	NA	4.5	NA	0.049	ND(<1.0)	0.12
B-8-20 9ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.3	73	0.11	41	41	ND(<5.0)	NA	3.5	NA	0.033	ND(<1.0)	ND(<0.10)
B-9-20 7.5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3	61	0.23	49	49	ND(<5.0)	NA	6.9	NA	0.042	ND(<1.0)	ND(<0.10)
B-9-20 10ft	10/27/2020	ND(<3.0)	ND(<250)	530	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.1	61	**4.8**	73	73	ND(<5.0)	NA	64	NA	0.074	1.6	0.17
B-10-20 5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	53	0.11	47	47	ND(<5.0)	NA	2.4	NA	0.033	ND(<1.0)	ND(<0.10)
B-10-20 11.5ft	10/27/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.2	40	ND(<0.10)	39	39	ND(<5.0)	NA	2.1	NA	0.031	ND(<1.0)	ND(<0.10)
MW-13 8 to 9ft	10/28/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	50	ND(<0.10)	32	32	ND(<5.0)	NA	2.6	NA	0.041	ND(<1.0)	ND(<0.10)
TP-1-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	5.3	72	ND(<0.10)	37	37	ND(<5.0)	NA	3.6	NA	0.038	ND(<1.0)	ND(<0.10)
TP-2-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	2.4	51	ND(<0.10)	38	38	ND(<5.0)	NA	2.6	NA	0.033	ND(<1.0)	ND(<0.10)
TP-3-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.5	41	ND(<0.10)	34	34	ND(<5.0)	NA	2.3	NA	0.031	ND(<1.0)	ND(<0.10)
TP-4-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.8	47	0.1	32	32	ND(<5)	NA	2.4	NA	0.032	ND(<1.0)	ND(<0.10)
TP-5-20 5ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.3	51	0.11	48	48	ND(<5.0)	NA	2.5	NA	0.038	ND(<1.0)	ND(<0.10)
TP-6-20 4.75ft	11/10/2020	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.8	94	0.12	47	47	ND(<5.0)	NA	4.5	NA	0.038	ND(<1.0)	ND(<0.10)
TP-7-20 2ft	11/10/2020	ND<3.0)	550	1200	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	**29**	11	0.32	130	130	ND(<5.0)	NA	160	NA	0.072	ND(<1.0)	1
B-2-21 5ft	7/8/2021	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	3.6	48	ND(<0.10)	46	46	ND(<5.0)	NA	3.4	NA	0.034	ND(<1.0)	ND(<0.10)
B-3-21 7.5ft	7/8/2021	ND(<3.0)	ND(<25)	ND(<50)	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	4.0	66	0.15	53	53	ND(<5.0)	NA	20	NA	0.040	ND(<1.0)	ND(<0.10)
P-1 Composite	7/8/2021	ND(<3.0)	170	570	ND(<0.005)	ND(<0.01)	ND(<0.01)	ND(<0.02)	Below CUL	Below CUL	9.4	110	0.26	43	NA	NA	ND(<0.031)	37	0.059	0.029	ND(<1.0)	ND(<0.10)

[a] - Cleanup level dependent on BTEX concentrations

[b] - Method A cleanup level was used at the Site to account for natural background concentrations, as per MTCA Guidance.

BOLD and shaded - indicates that the result exceeded the MTCA Method A or Method B target cleanup level

ND - indicates analyte was Not Detected at level above reporting limit (shown in parentheses)

NA - indicates that the sample was Not Analyzed for the specified analyte

-- indicates a cleanup level has not been specified

Table 3. 2020 Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Gx Gasoline Range	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	Volatile Organic Compounds (VOC) (EPA-8260) Benzene	Toluene	Ethylbenzene	Xylenes	All Other VOC	EPA-8270 All SVOCs	EPA-245.1 Mercury	EPA-200.8 Arsenic[b]	EPA-200.8 Barium	EPA-200.8 Cadmium	EPA-200.8 Chromium	EPA-200.8 Lead	EPA-200.8 Selenium	EPA-200.8 Silver
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MTCA Method A Cleanup Level:		1,000/800[a]	500	500	5	1,000	700	1,000	--	--	2	5	--	5	50	15	--	--
MTCA Method B Cleanup Level:		--	--	--	0.8	640	800	1,600	--	--	--	0.058	3,200	8	--	--	80	80
MW-1	11/18/2020	ND(<50)	ND(<130)	490	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	3.7	130	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-2	11/18/2020	ND(<50)	ND(<130)	**650**	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	**8.9**	92	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-3	11/18/2020	ND(<50)	**760**	420	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	1.0	170	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
	11/18/2020 (dup. MW-Dup-1)	ND(<50)	**810**	360	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	1.1	170	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-6	11/18/2020	ND(<50)	ND(<130)	480	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	1.8	17	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-7	11/18/2020	ND(<50)	ND(<130)	**630**	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	3.6	95	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-8	11/18/2020	ND(<50)	ND(<130)	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	ND(<1.0)	39	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-9	11/18/2020	ND(<50)	ND(<130)	**3,000**	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	2.3	190	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-10	11/19/2020	ND(<50)	280	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	**17**	59	ND(<1.0)	3.2	12	ND(<4.0)	ND(<1.0)
MW-11	11/19/2020	ND(<50)	150	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	**6.9**	150	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-12	11/19/2020	ND(<50)	ND(<130)	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	ND(<1.0)	11	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-13	11/18/2020	ND(<50)	ND(<130)	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	ND(<1.0)	39	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
MW-14	11/18/2020	ND(<50)	ND(<130)	380	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	1.8	23	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)
Equipment Blank	11/18/2020	ND(<50)	ND(<130)	ND(<250)	ND(<2.0)	ND(<2.0)	ND(<2.0)	ND(<4.0)	Below CUL	Below CUL	ND(<0.20)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<2.0)	ND(<1.0)	ND(<4.0)	ND(<1.0)

[a] - Cleanup level dependent on BTEX concentrations

[b] - Method A cleanup level was used at the Site to account for natural background concentrations, as per MTCA Guidance.

BOLD and shaded - indicates that the result exceeded the MTCA Method A or Method B target cleanup level

ND - indicates analyte was Not Detected at level above reporting limit (shown in parentheses)

-- indicates a cleanup level has not been specified

Table 4. 2020 Groundwater Chemistry Parameters - 210 McKenzie Ave

Well ID	Date	DTW (ft)	GW Elevation (ft)	Temp (°C)	EC (mS/cm)	TDS (g/L)	Salinity	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)
MW-1	11/18/2020	1.71	15.41	13.4	0.625	0.407	0.31	0.27	6.7	-37.9	13.4
MW-2	11/18/2020	1.39	15.46	12.3	0.512	0.333	0.25	0.29	8.91	-121.9	6.19
MW-3	11/18/2020	0.45	15.29	11.5	0.449	0.292	0.22	0.32	9.02	-25.9	5.78
MW-6	11/18/2020	0.79	18.61	12.36	0.176	0.114	0.08	0.56	6.14	118.3	8.76
MW-7	11/18/2020	9.26	8.43	13.8	0.66	0.429	0.32	0.27	8.00	-126	0.87
MW-8	11/18/2020	2.11	15.44	12.3	0.364	0.236	0.18	2.39	6.50	453.9	13.7
MW-9	11/18/2020	1.57	15.44	11.8	0.343	0.223	0.17	0.26	8.75	-166.2	4.55
MW-10	11/18/2020	9.96	7.60	13.17	0.342	0.223	0.16	0.32	6.12	47.1	over range
MW-11	11/18/2020	9.17	8.17	13.6	0.69	0.449	0.34	0.33	6.70	-132.3	1.36
MW-12	11/18/2020	7.62	8.02	14.1	0.177	0.115	0.08	4.65	6.64	39.9	17.2
MW-13	11/18/2020	1.32	20.80	11.38	0.527	0.342	0.26	0.88	6.74	363.3	6.19
MW-14	11/18/2020	3.6	16.11	13.5	0.311	0.202	0.15	4.86	7.64	126.4	1.46

[a] - DTWs were recorded at wells just before initiating purging. Allow pressurized wells to come to equilibrium after opening.

Table 5. 2020 Slug Test Results - 210 McKenzie Ave

Monitoring Well	Hydraulic Conductivity (Feet/Day)
MW-1	0.7
MW-2	2.0
MW-3	0.4
MW-6	0.2
MW-7	0.2
MW-10	0.3
MW-11	3.0
MW-12	0.01
MW-13	0.6
MW-14	0.04

APPENDIX A

Historic Analytical Data Tables

Table 1. 2007 Trench Soil Sample Analytical Results - TPH and BTEX

Sample ID	Date	Gasoline Range NWTPH-Gx (mg/kg)	Diesel Range NWTPH-Dx (mg/kg)	Lube Oil Range NWTPH-Dx (mg/kg)	Benzene EPA-8021 (mg/kg)	Toluene EPA-8021 (mg/kg)	Ethylbenzene EPA-8021 (mg/kg)	Xylenes EPA-8021 (mg/kg)	MTBE EPA-8021 (mg/kg)
Target CUL		100/30*	2,000	2,000	0.03	7	6	9	0.1
Trench 1 - 6 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 2.5 ft	4/17/07	ND(<3)	**110,000**	**120,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 2 - 11 ft	4/17/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 3 - 5 ft	4/17/07	ND(<30)	**28,000**	**6,900**	ND(<0.3)	ND(<0.5)	ND(<0.5)	ND(<2.0)	ND(<1.0)
Trench 3 - 4 ft	4/17/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 4.5 ft - S	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 4 - 6 ft - N	4/18/07	ND(<3)	350	260	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 5 - 5 ft	4/18/07	ND(<3)	ND(<45)	110	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 6 - 8 ft	4/18/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 7 - 6 ft	4/19/07	ND(<3)	**3,200**	**5,600**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 8 - 8.5 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 9 - 4 ft	4/19/07	ND(<3)	**6,700**	**11,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 10 - 1 ft	4/19/07	**5,900**	ND(<100)	ND(<50)	**0.09**	0.76	4.3	**82**	ND(<0.1)
Trench 10 - 7 ft	4/19/07	14	900	600	ND(<0.03)	0.08	ND(<0.05)	0.6	ND(<0.1)
Trench 11 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 12 - 1 ft	4/19/07	ND(<3)	25	100	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 1	4/19/07	4	ND(<25)	90	ND(<0.03)	ND(<0.05)	ND(<0.05)	0.19	ND(<0.1)
Trench 14 - 1 ft	4/19/07	22	1,500	**2,800**	**0.03**	0.5	0.4	5.5	ND(<0.1)

Table 1. 2007 Trench Soil Sample Analytical Results - TPH and BTEX

Sample ID	Date	Gasoline Range NWTPH-Gx (mg/kg)	Diesel Range NWTPH-Dx (mg/kg)	Lube Oil Range NWTPH-Dx (mg/kg)	Benzene EPA-8021 (mg/kg)	Toluene EPA-8021 (mg/kg)	Ethylbenzene EPA-8021 (mg/kg)	Xylenes EPA-8021 (mg/kg)	MTBE EPA-8021 (mg/kg)
Target CUL		100/30*	2,000	2,000	0.03	7	6	9	0.1
Trench 15 - 8 ft	4/19/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 23 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	430	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Surface Sample 2	4/23/07	ND(<30)	**10,000**	ND(<500)	ND(<0.3)	ND(<0.5)	ND(<0.5)	2.9	ND(<10)
Surface Sample 3	4/23/07	ND(6)	ND(<380)	**24,000**	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 26 - 0.5 ft	4/23/07	ND(<3)	ND(<25)	200	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 2 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 29 - 8 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)
Trench 30 - 1 ft	4/23/07	ND(<3)	ND(<25)	ND(<50)	ND(<0.03)	ND(<0.05)	ND(<0.05)	ND(<0.2)	ND(<0.1)

NA - indicates sample not analyzed for the specified analyte

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

BOLD indicates sample result exceeded most restrictive cleanup level

* - Cleanup level dependent on benzene concentration

Table 2. 2007 Trench Soil Sample Analytical Results - Total Metals

Sample ID / Analyte	**Trench 1 - 6 ft** (mg/kg)	**Trench 2 - 2.5 ft** (mg/kg)	**Trench 3 - 5 ft** (mg/kg)	**Trench 3 - 4 ft** (mg/kg)	**Trench 5 - 5 ft** (mg/kg)	**Trench 6 - 3 ft** (mg/kg)	**Target CUL** (mg/kg)
Date	04/17/07	04/17/07	04/17/07	04/17/07	04/18/07	04/18/07	
Total Metals - EPA 6000/7000 Series Methods							
Antimony	ND(<3.0)	4.3	ND(<3.0)	14	**160**	3.9	32
Arsenic	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	20
Beryllium	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	
Cadmium	1.7	**5.5**	1.6	**12**	**3.3**	**6.9**	2
Chromium	28	9.6	32	ND(<1.0)	35	11	42
Copper	20	**120**	22	**6,900**	**630**	**290**	100
Lead	ND(<5.0)	100	ND(<5.0)	**830**	**3,000**	17	220
Mercury	ND(<0.02)	ND(<0.02)	ND(<0.02)	0.16	0.04	ND(<0.02)	2
Nickel	48	59	47	60	45	65	100
Selenium	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Silver	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	44	85	80	**2,500**	**630**	28	270

Sample ID / Analyte	**Trench 7 - 6 ft** (mg/kg)	**Surface Sample 1** (mg/kg)	**Surface Sample 3** (mg/kg)	**Trench 26 - 0.5 ft** (mg/kg)	**Trench 29 - 2 ft** (mg/kg)	**Target CUL** (mg/kg)
Date	04/19/07	04/19/07	04/23/07	04/23/07	04/23/07	
Total Metals - EPA 6000/7000 Series Methods						
Antimony	13	ND(<3.0)	ND(<3.0)	ND(<3.0)	ND(<3.0)	32
Arsenic	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	20
Beryllium	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<1.0)	
Cadmium	**23**	**19**	**3**	**4.2**	**2.4**	2
Chromium	13	ND(<1.0)	24	29	37	42
Copper	**470**	**2,200**	**510**	**270**	34	100
Lead	62	52	71	18	ND(<5.0)	220
Mercury	ND(<0.02)	ND(<0.02)	1.1	0.04	0.04	2
Nickel	**210**	14	39	41	48	100
Selenium	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Silver	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	
Thallium	ND(<10)	ND(<10)	ND(<10)	ND(<10)	ND(<10)	
Zinc	62	**4,300**	**340**	94	58	270

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

BOLD indicates sample result exceeded most restrictive cleanup level

Table 3. 2007 Trench Soil Sample Analytical Results - VOCs

Analyte / Sample ID	Trench 2 - 2.5 ft (µg/kg)	Trench 3 - 4 ft (µg/kg)	Trench 5 - 5 ft (µg/kg)	Target CUL (µg/kg)
Date	4/17/2007	4/17/2007	4/18/2007	
EPA 8260 Method				
Dichlorodifluoromethane	ND(<10)	ND(<10)	ND(<10)	
Chloromethane	ND(<10)	ND(<10)	ND(<10)	
Vinyl Chloride	ND(<10)	ND(<10)	ND(<10)	
Bromomethane	ND(<10)	ND(<10)	ND(<10)	
Chloroethane	ND(<10)	ND(<10)	ND(<10)	
Trichlorofluoromethane	ND(<10)	ND(<10)	ND(<10)	
Acetone	410	ND(<50)	ND(<50)	
1,1-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
Methylene Chloride	**70**	ND(<10)	ND(<10)	20
Acrylonitrile	ND(<50)	ND(<50)	ND(<50)	
Methyl T-Butyl Ether	ND(<10)	ND(<10)	ND(<10)	100
Trans-1,2-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
1,1-Dichloroethane	ND(<10)	ND(<10)	ND(<10)	
2-Butanone	ND(<50)	ND(<50)	ND(<50)	
Cis-1,2-Dichloroethene	ND(<10)	ND(<10)	ND(<10)	
2,2-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Bromochloromethane	ND(<10)	ND(<10)	ND(<10)	
Chloroform	ND(<10)	ND(<10)	ND(<10)	
1,1,1-Trichloroethane	ND(<10)	ND(<10)	ND(<10)	
1,1-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
Carbon Tetrachloride	ND(<10)	ND(<10)	ND(<10)	
1,2-Dichloroethane	ND(<10)	ND(<10)	ND(<10)	
Benzene	ND(<10)	ND(<10)	ND(<10)	30
Trichloroethene	ND(<10)	ND(<10)	ND(<10)	
1,2-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Dibromomethane	ND(<10)	ND(<10)	ND(<10)	
Bromodichloromethane	ND(<10)	ND(<10)	ND(<10)	
Trans-1,3-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
4-Methyl-2-Pentanone	ND(<50)	ND(<50)	ND(<50)	
Toluene	ND(<10)	ND(<10)	ND(<10)	7,000
Cis-1,3-Dichloropropene	ND(<10)	ND(<10)	ND(<10)	
1,1,2-Trichloroethane	ND(<10)	ND(<10)	ND(<10)	
2-Hexanone	ND(<50)	ND(<50)	ND(<50)	
1,3-Dichloropropane	ND(<10)	ND(<10)	ND(<10)	
Tetrachloroethylene	ND(<10)	ND(<10)	ND(<10)	
Dibromochloromethane	ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromoethane	ND(<5)	ND(<5)	ND(<5)	
Chlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,1,1,2-Tetrachloroethane	ND(<10)	ND(<10)	ND(<10)	
Ethylbenzene	ND(<10)	ND(<10)	ND(<10)	6,000
M+P Xylene	ND(<20)	ND(<20)	ND(<20)	9,000*
Styrene	ND(<10)	ND(<10)	ND(<10)	
O-Xylene	ND(<10)	ND(<10)	ND(<10)	9,000*
Bromoform	ND(<10)	ND(<10)	ND(<10)	

Table 3. 2007 Trench Soil Sample Analytical Results - VOCs

Analyte / Sample ID	**Trench 2 - 2.5 ft** (µg/kg)	**Trench 3 - 4 ft** (µg/kg)	**Trench 5 - 5 ft** (µg/kg)	**Target CUL** (µg/kg)
Date	4/17/2007	4/17/2007	4/18/2007	
Isopropylbenzene	ND(<10)	ND(<10)	ND(<10)	
1,1,2,2-Tetrachloroethane	ND(<10)	ND(<10)	ND(<10)	
1,2,3-Trichloropropane	ND(<10)	ND(<10)	ND(<10)	
Bromobenzene	ND(<10)	ND(<10)	ND(<10)	
N-Propyl Benzene	ND(<10)	ND(<10)	ND(<10)	
2-Chlorotoluene	ND(<10)	ND(<10)	ND(<10)	
1,3,5-Trimethylbenzene	17	ND(<10)	ND(<10)	800
4-Chlorotoluene	ND(<10)	ND(<10)	ND(<10)	
T-Butyl Benzene	ND(<10)	ND(<10)	ND(<10)	
1,2,4-Trimethylbenzene	17	ND(<10)	ND(<10)	
S-Butyl Benzene	ND(<10)	ND(<10)	ND(<10)	
P-Isopropyltoluene	ND(<10)	ND(<10)	ND(<10)	
1,3 Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,4-Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
N-Butylbenzene	ND(<10)	ND(<10)	ND(<10)	
1,2-Dichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
1,2-Dibromo 3-Chloropropane	ND(<50)	ND(<50)	ND(<50)	
1,2,4-Trichlorobenzene	ND(<10)	ND(<10)	ND(<10)	
Hexachlorobutadiene	ND(<10)	ND(<10)	ND(<10)	
Naphthalene	86	ND(<10)	ND(<10)	5,000
1,2,3-Trichlorobenzene	ND(<10)	ND(<10)	ND(<10)	

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

BOLD indicates sample result exceeded most restrictive cleanup level

* Cleanup level for total xylenes (M+O+P)

Table 4. 2007 Trench Soil Sample Analytical Results - SVOCs

Sample ID	**Trench 2 - 2.5 ft**	**Trench 3 - 4 ft**	**Trench 5 - 5 ft**	**Trench 6 - 3 ft**	**Trench 7 - 6 ft**	**Trench 10 - 7 ft**	**Surface Sample 1**	**Target CUL**
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
EPA 8270 SIM Method (mg/kg)								
Naphthalene	15	ND(<0.04)	ND(<0.04)	ND(<0.04)	ND(<0.02)	0.15	0.07	
1-Methylnaphthalene	**130**	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.03	0.18	0.14	35
2-Methylnaphthalene	**100**	ND(<0.04)	ND(<0.04)	0.04	0.05	0.27	0.13	320
Total Naphthalenes	**245**			0.04	0.08	0.6	0.34	5*
Acenaphthylene	7.2	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.1	ND(<0.02)	0.09	
Acenaphthene	100	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.07	ND(<0.02)	0.18	4,800
Fluorene	87	ND(<0.04)	ND(<0.04)	ND(<0.04)	0.21	ND(<0.02)	0.06	3,200
Phenanthrene	320	0.11	0.13	0.05	0.64	0.05	1.3	
Anthracene	84	ND(<0.04)	ND(<0.04)	0.05	0.44	ND(<0.02)	0.15	24,000
Fluoranthene	150	0.12	0.16	ND(<0.04)	0.98	0.06	2.2	3,200
Pyrene	190	0.16	0.19	0.23	2.6	0.1	2.6	2,400
Benzo[A]Anthracene	68	0.08	0.05	ND(<0.04)	1	0.03	1.2	
Chrysene	120	0.1	0.09	0.23	2.5	0.05	1.5	
Benzo[B]Fluoranthene	26	0.07	0.05	0.12	0.83	0.02	1.6	
Benzo[K]Fluoranthene	11	0.06	0.06	0.06	0.44	0.02	1	
Benzo(A)Pyrene	33	0.09	0.08	0.26	1.2	0.03	0.86	
Indeno[1,2,3-Cd]Pyrene	9.8	0.07	0.06	0.1	0.46	ND(<0.02)	0.8	
Dibenz[A,H]Anthracene	11	ND(<0.04)	ND(<0.04)	0.09	0.4	ND(<0.02)	0.37	
Benzo[G,H,I]Perylene	15	0.08	0.07	0.23	0.72	0.02	0.77	
cPAH Total TEC**	**46.78**	**0.12**	**0.10**	**0.30**	**1.54**	0.04	**1.37**	0.1
EPA 8270 Method (μg/kg)								
Pyridine	ND(<20,000)	ND(<200)	ND(<200)	ND(<200)	ND(<800)	NA	NA	
N-Nitrosodimethylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Phenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Aniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroethyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Chlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table 4. 2007 Trench Soil Sample Analytical Results - SVOCs

Sample ID	**Trench 2 - 2.5 ft**	**Trench 3 - 4 ft**	**Trench 5 - 5 ft**	**Trench 6 - 3 ft**	**Trench 7 - 6 ft**	**Trench 10 - 7 ft**	**Surface Sample 1**	**Target CUL**
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
1,3-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,4-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzyl Alcohol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2-Dichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Bis(2-Chloroisopropyl)Ether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitroso-Di-N-Propylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachloroethane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Nitrobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Isophorone	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Nitrophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dimethylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzoic Acid	ND(<1,000)	ND(<1,000)	ND(<1,000)	ND(<2,000)	ND(<4,000)	NA	NA	
Bis(2-Chloroethoxy)Methane	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
1,2,4-Trichlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloroaniline	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobutadiene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Chloro-3-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Naphthalene	11,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Methylnaphthalene	94,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	320,000
1-Methylnaphthalene	**120,000**	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	35,000
Total Naphthalenes	**225,000**							5,000*
Hexachlorocyclopentadiene	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
2,4,6-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,4,5-Trichlorophenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2-Chloronaphthalene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table 4. 2007 Trench Soil Sample Analytical Results - SVOCs

Sample ID	Trench 2 - 2.5 ft	Trench 3 - 4 ft	Trench 5 - 5 ft	Trench 6 - 3 ft	Trench 7 - 6 ft	Trench 10 - 7 ft	Surface Sample 1	Target CUL
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
2-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthylene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Dimethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
2,6-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Acenaphthene	69,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	4,800,000
3-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,4-Dinitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
4-Nitrophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Dibenzofuran	16,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	80,000
2,4-Dinitrotoluene	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
2,3,4,6-Tetrachlorophenol	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
Diethylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Fluorene	61,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	3,200,000
4-Chlorophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Nitroaniline	ND(<25,000)	ND(<250)	ND(<250)	ND(<500)	ND(<1,000)	NA	NA	
4,6-Dinitro-2-Methylphenol	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
N-Nitrosodiphenylamine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Azobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
4-Bromophenyl-Phenylether	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Hexachlorobenzene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Pentachlorophenol	ND(<50,000)	ND(<500)	ND(<500)	ND(<1,000)	ND(<2,000)	NA	NA	
Phenanthrene	270,000	ND(<100)	110	ND(<200)	580	NA	NA	
Anthracene	60,000	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	24,000,000
Carbazole	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Di-N-Butylphthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Fluoranthene	120,000	110	130	ND(<200)	950	NA	NA	3,200,000
Pyrene	180,000	110	140	ND(<200)	2,900	NA	NA	2,400,000
Butylbenzylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
3,3'-Dichlorobenzidine	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	

Table 4. 2007 Trench Soil Sample Analytical Results - SVOCs

Sample ID	**Trench 2 - 2.5 ft**	**Trench 3 - 4 ft**	**Trench 5 - 5 ft**	**Trench 6 - 3 ft**	**Trench 7 - 6 ft**	**Trench 10 - 7 ft**	**Surface Sample 1**	**Target CUL**
Date	4/17/07	4/17/07	4/18/07	4/18/07	4/19/07	4/19/07	4/19/07	
Benzo[A]Anthracene	51,000	ND(<100)	ND(<100)	ND(<200)	870	NA	NA	
Chrysene	97,000	ND(<100)	ND(<100)	ND(<200)	2,600	NA	NA	
Bis(2-Ethylhexyl)Phthalate	ND(<13,000)	ND(<130)	ND(<130)	ND(<260)	ND(<520)	NA	NA	
Di-N-Octylphthalate	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[B]Fluoranthene	19,000	ND(<100)	ND(<100)	ND(<200)	530	NA	NA	
Benzo[K]Fluoranthene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	ND(<400)	NA	NA	
Benzo[A]Pyrene	22,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
Indeno[1,2,3-Cd]Pyrene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	460	NA	NA	
Dibenz[A,H]Anthracene	ND(<10,000)	ND(<100)	ND(<100)	ND(<200)	430	NA	NA	
Benzo[G,H,I]Perylene	16,000	ND(<100)	ND(<100)	ND(<200)	850	NA	NA	
cPAH Total TEC**	**29,970**				**1,105**			100

NA - indicates sample not analyzed for the specified analyte

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

BOLD indicates sample result exceeded most restrictive cleanup level

* Cleanup level for sum of Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene

** Toxic equivalent concentrations (TEC) for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) based on methodology in WAC 173-340-708(8)(e)

Table 5. 2010 and 2011 Soil Boring Sample Analytical Results

Sample ID	B-7 (8-8.5') (MW-7)	B-8 (12.5') (MW-8)	B-9 (12.5') (MW-9)	B-10 (14 ft) (MW-10)	B-11 (14 ft) (MW-11)	B-12 (14 ft) (MW-12)	
Date	5/13/10	5/13/10	5/13/10	06/07/11	06/07/11	06/07/11	**Target CUL**
NW-TPH Methods (mg/kg)							
Gasoline Range (NWTPH-Gx)	ND(<3.0)	ND(<3.0)	ND(<3.9)	ND(<3.0)	ND(<3.0)	ND(<3.0)	100/30*
Diesel Range (NWTPH-Dx)	ND(<25)	**2,500**	**26,000**	ND(<25)	ND(<25)	ND(<25)	2,000
Oil Range (NWTPH-Dx)	ND(<50)	**3,100**	**40,000**	ND(<50)	ND(<50)	ND(<50)	2,000
EPA 8021 Method (mg/kg)							
Benzene	ND(<0.03)	ND(<0.03)	ND(<0.046)	ND(<0.03)	ND(<0.03)	ND(<0.03)	0.03
Toluene	ND(<0.05)	ND(<0.05)	ND(<0.077)	ND(<0.05)	ND(<0.05)	ND(<0.05)	7
Ethylbenzene	ND(<0.05)	ND(<0.05)	ND(<0.077)	ND(<0.05)	ND(<0.05)	ND(<0.05)	6
Xylenes	ND(<0.20)	ND(<0.20)	ND(<0.31)	ND(<0.20)	ND(<0.20)	ND(<0.20)	9
Metals - EPA 6020 (mg/kg)							
Arsenic	2.6	**49**	**51**	8.5	2.2	3.1	20
Cadmium	ND(<0.20)	ND(<0.20)	ND(<3.1)	ND(<1.3)	ND(<1.1)	ND(<1.2)	2
Chromium	43	**270**	**170**	49	49	50	78.5
Lead	4.3	**1,000**	**220**	5.6	2	13	220
Metals - EPA 7471 (mg/kg)							
Mercury	0.038	0.055	0.042	0.051	0.027	0.029	2

NA - indicates sample not analyzed for the specified analyte

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

BOLD indicates sample result exceeded most restrictive cleanup level

* - Cleanup level dependent on benzene concentration

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-1								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-2								
08/02/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
08/02/07 Dup.	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/04/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 Dup.	ND(<50)	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	200	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-3								
08/02/07	ND(<50)	150	ND(<250)	3	ND(<2)	3	ND	ND(<2)
12/06/07	64	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	3	ND(<2)	3	ND	ND(<2)
03/12/08 Dup.	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08	ND(<50)	ND(<130)	ND(<250)	4	ND(<2)	3	ND	ND(<2)
09/15/08	77	ND(<130)	ND(<250)	**5**	ND(<2)	7	ND	ND(<2)
03/04/09	58	180	ND(<250)	3	ND(<1)	1	ND(<3)	ND(<3)
06/04/09	ND(<50)	150	ND(<250)	4	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 Dup.	ND(<50)	160	ND(<250)	3	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	76	170	ND(<250)	3.6	7.1	6.1	8.3	ND(<3)
11/18/09	ND(<50)	250	ND(<250)	2.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	190	ND(<250)	2.2	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	210	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	370	ND(<250)	1.9	ND(<1)	2.9	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	1.5	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	1.7	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	1.9	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	150	ND(<250)	2.6	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	65	360	ND(<250)	1.1	ND(<1)	ND(<1)	3.7	ND(<3)
06/14/12	ND(<50)	190	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12 Dup.	ND(<50)	130	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-4								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	6.4
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-5								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/23/10	ND(<50)	160	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-6								
08/03/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/12/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
06/16/08 Dup.	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<50)	ND(<130)	ND(<250)	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
03/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/09/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/02/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/23/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12	NA	NA	NA	NA	NA	NA	NA	NA

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-7								
06/24/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<250)	ND(<130)	ND(<250)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<15)	ND(<15)
09/08/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/08/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	NA	NA	NA	NA	NA	NA	NA
MW-8								
06/24/10	ND(<50)	240	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	250	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	140	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	150	ND(<250)	NA	NA	NA	NA	NA

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
MW-9								
06/24/10	ND(<50)	480	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 Dup.	ND(<50)	**530**	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10	ND(<50)	370	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10	ND(<50)	320	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11	55	150	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11	ND(<50)	210	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/15/11 Dup.	ND(<50)	170	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	180	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	270	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	NA	260	ND(<250)	NA	NA	NA	NA	NA
MW-10								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-11								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
MW-12								
06/15/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/21/11 Dup.	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/06/11	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/13/12	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

Table 6. Groundwater Sample Analytical Results - TPH and BTEX

Well ID	Volatile Range NWTPH-Gx	Diesel Range NWTPH-Dx	Oil Range NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	800/1,000*	500	500	5	1,000	700	1,000	20
Equipment Blank								
08/02/07 (MW-8)	NA	NA	NA	ND(<2)	ND(<2)	ND(<2)	ND	ND(<2)
12/06/07 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/12/08 (MW-8)	NA	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
06/16/08 (MW-8)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<50)	ND(<130)	ND(<250)	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<50)	NA	NA	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/04/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/02/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
11/18/09 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/18/10 (MW-8)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/24/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/08/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/01/10 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
03/22/11 (MW-11)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/16/11 (MW-15)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
09/22/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
12/07/11 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)
06/14/12 (MW-14)	ND(<50)	ND(<130)	ND(<250)	ND(<1)	ND(<1)	ND(<1)	ND(<3)	ND(<3)

* - Cleanup level dependent on BTEX concentrations

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-1									
08/02/07	**7**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	280	400	0	0.03	ND(<0.4)	19	NA	3.7
06/04/09	ND(<5)	6,900	3,400	3,500	0.57	ND(<0.4)	9.3	ND(<0.05)	4.9
09/02/09	1.1	**22,000**	6,400	15,600	1.4	ND(<0.4)	0.68	ND(<0.02)	6.4
09/02/09 Dup.	1.7	**21,000**	NA	NA	4.4	ND(<0.4)	0.61	ND(<0.02)	6.3
11/18/09	ND(<1)	930	1,000	0	ND(<0.01)	ND(<0.4)	24	ND(<0.05)	3.0
03/18/10	1.9	**21,000**	4,400	16,600	1.5	ND(<0.29)	16	ND(<0.05)	4.1
06/23/10	3.6	**25,000**	4,200	20,800	0.68	ND(<0.29)	13	ND(<0.05)	4.5
09/09/10	**6.3**	**32,000**	4,000	28,000	2.8	ND(<0.29)	0.69	ND(<0.05)	5.5
12/02/10	3.5	**27,000**	4,400	22,600	0.62	ND(<0.29)	14	ND(<0.05)	4.0
03/23/11	**5.4**	**28,000**	5,000	23,000	0.9	ND(<0.29)	9	ND(<0.05)	4.0
06/16/11	**6.5**	**26,000**	5,500	20,500	0.74	ND(<0.29)	6	ND(<0.05)	4.6
09/22/11	**11**	**40,000**	6,600	33,400	3.40	ND(<0.29)	ND(<0.26)	0.1	6.4
12/07/11	**7.3**	**27,000**	4,600	22,400	1.00	ND(<0.29)	7.3	0.14	3.5
06/14/12	**7.3**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**6.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**6.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**6.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**10.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	4.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**12.0**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**6.3**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**6.6**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-2									
08/02/07	**11**	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**15**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	**6**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**20**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**8**	**27,000**	5,000	22,000	0.98	ND(<0.4)	1.4	NA	6.2
03/04/09 Dup.	**8**	**27,000**	NA	NA	1.2	ND(<0.4)	1.2	NA	6.4
06/04/09	**15**	**24,000**	5,600	18,400	4.6	ND(<0.4)	1.3	ND(<0.05)	6.0
09/02/09	**18**	**25,000**	5,000	20,000	6.1	ND(<0.4)	0.59	ND(<0.02)	6.6
11/18/09	**17**	**24,000**	4,400	19,600	4.4	ND(<0.4)	2.9	ND(<0.05)	7.1
03/18/10	**7.5**	**27,000**	6,000	21,000	13	ND(<0.29)	1.6	ND(<0.05)	5.4
03/18/10 Dup.	**9.1**	**26,000**	6,000	20,000	4.4	ND(<0.29)	1.9	ND(<0.05)	5.3
06/23/10	**10**	**24,000**	4,400	19,600	3.9	ND(<0.29)	2.2	ND(<0.05)	5.5
09/09/10	**22**	**22,000**	4,400	17,600	6.9	ND(<0.29)	0.73	ND(<0.05)	5.4
12/02/10	**6.5**	**28,000**	7,000	21,000	6.1	ND(<0.29)	3.3	ND(<0.05)	6.1
03/23/11	**7.8**	**27,000**	5,000	22,000	3.4	ND(<0.29)	1.8	ND(<0.05)	4.9
06/16/11	**10**	**24,000**	6,000	18,000	5.3	ND(<0.29)	0.78	ND(<0.05)	5.2
09/22/11	**15**	**25,000**	6,800	18,200	5.2	ND(<0.29)	0.8	0.08	6.1
12/07/11	4.0	**29,000**	4,800	24,200	9.70	ND(<0.29)	12	0.2	6.0
06/14/12	**10**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**14**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**5.6**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	4.7	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**10.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	2.2	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**11.0**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**13.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-3									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	**37,000**	5,000	32,000	6.4	ND(<0.4)	5.3	NA	13
06/04/09	ND(<5)	**35,000**	7,600	27,400	16	ND(<0.4)	1.3	0.08	13
06/04/09 Dup.	ND(<5)	**35,000**	NA	NA	15	0.4	1.5	ND(<0.05)	13
09/02/09	1.7	**40,000**	6,000	34,000	11	ND(<0.4)	2.2	ND(<0.02)	14
11/18/09	2.3	**35,000**	2,800	32,200	7	ND(<0.4)	3.8	ND(<0.05)	15
03/18/10	ND(<1.8)	**34,000**	5,400	28,600	7.8	ND(<0.29)	3.4	ND(<0.05)	11
06/23/10	2.3	**37,000**	5,400	31,600	13	ND(<0.29)	3.0	ND(<0.05)	14
09/09/10	**5.7**	**35,000**	5,000	30,000	8.8	8	27.0	ND(<0.05)	12
12/02/10	ND(<1.8)	**25,000**	5,600	19,400	10	ND(<0.29)	18.0	ND(<0.05)	10
03/23/11	3.6	**39,000**	7,000	32,000	10	ND(<0.29)	2	ND(<0.05)	13
06/16/11	3.9	**35,000**	5,600	29,400	11	ND(<0.29)	ND(<0.26)	ND(<0.05)	13
09/22/11	**8.4**	**45,000**	5,600	39,400	7	ND(<0.29)	16	0.14	18
12/07/11	2.3	**32,000**	4,200	27,800	14	ND(<0.29)	11	0.14	11
06/14/12	2.6	NA	NA	NA	NA	NA	NA	NA	NA
06/14/12 Dup.	2.8	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	3	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	3	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	7.1	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16 Dup.	6.9	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	2.1	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	3.4	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	1.2	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20 Dup.	1.0	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-4									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	23	NA	3.4
06/04/09	ND(<5)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	3.2
09/02/09	ND(<1)	ND(<100)	200	ND	ND(<0.01)	ND(<0.4)	18	ND(<0.02)	3.3
11/18/09	ND(<1)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	20	ND(<0.05)	4.5
03/18/10	ND(<1.8)	ND(<220)	0	ND	0.07	ND(<0.29)	20	ND(<0.05)	2.6
06/23/10	ND(<1.8)	ND(<220)	0	ND	0.38	ND(<0.29)	16	ND(<0.05)	2.5
09/09/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	8	26	ND(<0.05)	2.5
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	73	ND(<0.05)	3.2
03/23/11	2.5	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	12	ND(<0.05)	1.8
06/16/11	1.9	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.8	ND(<0.05)	2.0
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	9.9	ND(<0.05)	3.2
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.5	2.8	2.8
06/14/12	ND(<1)	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities*								
09/17/14	*Well covered during construction activities*								
09/28/15	*Well covered during construction activities*								

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-5									
08/02/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	ND(<5)	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	4.0	NA	2.2
06/04/09	ND(<5)	360	1,000	0	ND(<0.01)	ND(<0.4)	1.9	ND(<0.05)	2.4
09/02/09	1.3	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	5.5	ND(<0.02)	2.4
11/18/09	1.5	ND(<100)	0	ND	ND(<0.01)	ND(<0.4)	2.9	ND(<0.05)	4.1
03/18/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.7	ND(<0.05)	2.1
06/23/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.6	ND(<0.05)	2.1
09/09/10	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.1	ND(<0.05)	2.0
12/02/10	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.0	ND(<0.05)	4.8
03/23/11	2.2	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	3.8	ND(<0.05)	2.2
06/16/11	3.0	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	2.3	ND(<0.05)	1.9
09/22/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	7.8	0.14	2.5
12/07/11	ND(<1.8)	ND(<220)	0	ND	ND(<0.01)	ND(<0.29)	5.2	2.8	2.8
06/13/12	1.1	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	*Well inaccessible due to construction activities*								
09/17/14	*Well covered during construction activities*								
09/28/15	*Unable to locate well*								

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-6									
08/02/07	4	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07	**6**	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08	**5**	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 Dup.	ND(<4)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08	**12**	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09	**6**	**14,000**	2,000	12,000	0.76	ND(<0.4)	6.5	NA	10
06/04/09	**7**	**16,000**	4,800	11,200	5.9	ND(<0.4)	1.1	0.14	12
09/02/09	**17**	**21,000**	4,000	17,000	6.9	ND(<0.4)	0.35	0.08	13
11/18/09	**8.8**	7,500	2,400	5,100	3.7	ND(<0.4)	6.3	ND(<0.05)	11
11/18/09 Dup.	**8.8**	7,400	NA	NA	3.8	ND(<0.4)	6.2	ND(<0.05)	11
03/18/10	**6.0**	**12,000**	10,000	2,000	3.2	ND(<0.29)	5.2	ND(<0.05)	8
06/24/10	**7.1**	**19,000**	4,000	15,000	4.9	ND(<0.29)	6.9	ND(<0.05)	10
09/09/10	**15**	**26,000**	4,600	21,400	6.7	ND(<0.29)	2.6	ND(<0.05)	11
12/02/10	**6.5**	**18,000**	5,000	13,000	7.1	ND(<0.29)	6.9	ND(<0.05)	10
03/23/11	**8.0**	**16,000**	5,000	11,000	2.4	ND(<0.29)	2.4	ND(<0.05)	9
06/16/11	**8.8**	**24,000**	5,200	18,800	7.8	ND(<0.29)	4.6	ND(<0.05)	10
06/16/11 Dup.	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/22/11	**15**	**27,000**	5,000	22,000	1.8	ND(<0.29)	ND(<0.26)	0.1	11
12/08/11	**6.8**	**14,000**	3,800	10,200	1.5	ND(<0.29)	17	0.3	7.5
06/13/12	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	4.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12 Dup.	4.4	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**7.2**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**6.6**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**14**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**12**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**11**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/14/20	**5.9**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-7									
06/24/10	**6.6**	**25,000**	3,400	21,600	3.7	ND(<0.29)	1.2	ND(<0.05)	11.0
09/08/10	**5.3**	**29,000**	5,000	24,000	3.7	ND(<0.29)	1.0	ND(<0.05)	11.0
09/08/10 Dup.	4.9	**28,000**	NA	NA	4.0	ND(<0.29)	0.28	ND(<0.05)	12.0
12/01/10	**7.6**	**33,000**	6,400	26,600	5.2	ND(<0.29)	0.67	ND(<0.05)	11.0
03/22/11	**7.1**	**28,000**	5,400	22,600	6.2	ND(<0.29)	1.4	ND(<0.05)	10.0
03/22/11 Dup.	**6.8**	**27,000**	5,400	21,600	2.9	ND(<0.29)	0.43	ND(<0.05)	10.0
06/15/11	**7.6**	**23,000**	5,000	18,000	5.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	10.0
09/21/11	**8.7**	**35,000**	5,800	29,200	4.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.9
12/08/11	**8.5**	**35,000**	5,500	29,500	2.7	ND(<0.29)	3	0.3	9.4
06/13/12	**9.7**	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	**12**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14 Dup.	**8.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/07/16	**5.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**24**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**10**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**7.1**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19 (WES-Dup.-1)	**9**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**11**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-8									
06/24/10	2.7	**34,000**	5,400	28,600	4.7	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.9
09/08/10	2.5	**33,000**	3,800	29,200	9.4	ND(<0.29)	ND(<0.26)	ND(<0.05)	7.7
12/01/10	2.5	**29,000**	5,400	23,600	5.9	ND(<0.29)	2.3	ND(<0.05)	8.5
12/01/10 Dup.	2.5	**29,000**	NA	NA	3.4	ND(<0.29)	2.0	ND(<0.05)	8.6
03/22/11	2.7	**18,000**	5,600	12,400	5.3	ND(<0.29)	0.75	ND(<0.05)	6.8
06/15/11	3.3	**31,000**	8,000	23,000	8.3	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.9
09/21/11	2.0	**30,000**	5,700	24,300	10.0	ND(<0.29)	0.27	0.14	7.5
12/06/11	ND(<1.8)	**12,000**	3,800	8,200	4.6	ND(<0.29)	12	0.16	8.3
06/13/12	1.9	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	1.4	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	1.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	ND(<2.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	1.6	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	2.0	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	1.1	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-9									
06/24/10	3.8	**28,000**	4,000	24,000	8.5	ND(<0.29)	1.5	ND(<0.05)	7.1
06/24/10 Dup.	3.7	**28,000**	NA	NA	13.0	ND(<0.29)	1.2	ND(<0.05)	7.1
9/8/2010	2.8	**25,000**	3,000	22,000	15.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.5
12/1/2010	3.0	**30,000**	4,000	26,000	8.8	ND(<0.29)	0.48	ND(<0.05)	6.5
03/22/11	**5.5**	**36,000**	4,400	31,600	4.5	ND(<0.29)	0.82	ND(<0.05)	5.3
06/15/11	**6.2**	**32,000**	5,500	26,500	11.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.1
06/15/11 Dup.	**5.9**	**32,000**	NA	NA	13.0	ND(<0.29)	ND(<0.26)	ND(<0.05)	6.3
09/21/11	3.0	**26,000**	4,800	21,200	7.7	ND(<0.29)	ND(<0.26)	0.10	7.1
12/06/11	3.8	**38,000**	5,500	32,500	12	ND(<0.29)	0.46	0.16	6.9
06/13/12	4.6	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	2.1	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.4	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	2.8	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	3.0	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	2.8	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	ND (<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	1.9	NA	NA	NA	NA	NA	NA	NA	NA
MW-10									
06/15/11	2.1	590	700	0	0.3	ND(<0.29)	2.0	ND(<0.05)	3.6
09/21/11	ND(<1.8)	2,300	2,400	0	0.8	ND(<0.29)	15.0	0.14	3.4
12/06/11	ND(<1.8)	1,600	1,800	0	1.6	ND(<0.29)	45	0.14	4.1
12/06/11 Dup.	ND(<1.8)	1,300	NA	NA	4.6	ND(<0.29)	40	0.12	4.2
06/13/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	2.5	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	**8.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**11**	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15 Dup.	**11**	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**5.8**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**19**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**10**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**16**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
MW-11									
06/15/11	4.3	**13,000**	5,200	7,800	3.8	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
09/21/11	**7.5**	**39,000**	6,500	32,500	2.9	ND(<0.29)	1.7	ND(<0.05)	12.0
12/06/11	**5.2**	**26,000**	5,400	20,600	4.6	ND(<0.29)	0.72	0.22	8.3
06/13/12	**6.2**	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	2.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	**7.9**	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**6.5**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17	**6.7**	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**11**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**5.1**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	3.4	NA	NA	NA	NA	NA	NA	NA	NA
MW-12									
06/15/11	3.4	3,700	400	3,300	2.8	ND(<0.29)	3.7	ND(<0.05)	10.0
09/21/11	ND(<1.8)	5,400	3,600	1,800	3.2	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.5
9/21/11 Dup.	ND(<1.8)	5,500	3,600	1,900	2.9	ND(<0.29)	ND(<0.26)	ND(<0.05)	9.6
12/06/11	1.8	1,600	1,900	0	3.4	ND(<0.29)	4.6	0.14	7.6
06/13/12	1.8	NA	NA	NA	NA	NA	NA	NA	NA
11/16/12	1.5	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14	3.9	NA	NA	NA	NA	NA	NA	NA	NA
09/28/15	2.0	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16	**13.0**	NA	NA	NA	NA	NA	NA	NA	NA
09/19/17	3.4	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18	**6.4**	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19	**7.4**	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20	**16**	NA	NA	NA	NA	NA	NA	NA	NA

Table 7. Groundwater Sample Analytical Results - Arsenic and Related Compounds

Well ID	Dissolved Arsenic	Total Dissolved Iron*	Ferrous Iron (Fe^{2+})*	Ferric Iron (Fe^{3+})	Methane	Phosphate	Sulfate	Sulfide	TOC
	EPA-7060	EPA-6010 EPA 200.8 (in 2010)	Field Test	=Total - Ferrous	RSK-175	EPA-300.0	EPA-300.0	EPA-376.1	SM5310B
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Target CUL:	5	11,200	--	--	--	--	--	--	--
Equipment Blank									
08/02/07 (MW-8)	ND(<4.0)	NA	NA	NA	NA	NA	NA	NA	NA
12/06/07 (MW-8)	ND(<4.0)	NA	NA	NA	NA	NA	NA	NA	NA
03/12/08 (MW-8)	ND(<4.0)	NA	NA	NA	NA	NA	NA	NA	NA
06/16/08 (MW-8)	ND(<4.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/08 (MW-8)	ND(<4.0)	NA	NA	NA	NA	NA	NA	NA	NA
03/04/09 (MW-8)	ND(<5.0)	NA	NA	NA	NA	NA	NA	NA	NA
06/04/09 (MW-8)	ND(<5.0)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.05)	ND(<0.25)
09/02/09 (MW-8)	ND(<1.0)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.2)	ND(<0.02)	ND(<0.25)
11/18/09 (MW-8)	ND(<1.0)	ND(<100)	NA	NA	ND(<0.01)	ND(<0.4)	ND(<0.3)	ND(<0.05)	ND(<0.25)
03/18/10 (MW-8)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.81	ND(<0.05)	2.2
06/24/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	0.26	ND(<0.29)	ND(<0.26)	ND(<0.05)	0.27
09/08/10 (MW-11)	ND(<1.8)	240	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
12/01/10 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
03/22/11 (MW-11)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	0.71	ND(<0.05)	ND(<0.25)
06/16/11 (MW-15)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	ND(<0.05)	ND(<0.25)
09/22/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	ND(<0.26)	0.16	ND(<0.25)
12/07/11 (MW-14)	ND(<1.8)	ND(<220)	NA	NA	ND(<0.01)	ND(<0.29)	1.1	0.12	ND(<0.25)
06/14/12 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
11/15/12 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/17/14 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/28/14 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/08/16 (MW-14)	ND(<2.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/17 (MW-14)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/20/18 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
08/06/19 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA
09/15/20 (WES-FEB-1)	ND(<1.0)	NA	NA	NA	NA	NA	NA	NA	NA

* Filtered field sample was used for analysis

** Average based on all sampling events presented in table; For calculations non-detect is considered equal to 1/2 of detection limit

Bold - Concentration exceeded MTCA Method A cleanup level

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - Sample not analyzed for indicated analyte

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 8. Groundwater Sample Analytical Results - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-1				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-2				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-3				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	4
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-4				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-5				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)

Table 8. Groundwater Sample Analytical Results - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-6				
08/02/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
6/16/2008 Dup.	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/16/08	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
MW-7				
06/24/10	ND(<0.20)	1.7	2.7	1.9
09/08/10	ND(<0.20)	ND(<0.44)	2.4	6.5
09/08/10 Dup.	ND(<0.20)	ND(<0.44)	2.3	8.2
12/01/10	ND(<0.20)	ND(<0.44)	1.2	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	2.1	ND(<0.62)
03/22/11 Dup.	ND(<0.20)	ND(<0.44)	2.0	0.69
MW-8				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	2.0
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/01/10 Dup.	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.95	0.74
MW-9				
06/24/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
09/08/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	4.2
12/01/10	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11	ND(<0.20)	ND(<0.44)	0.82	0.64
MW-10				
06/15/11	ND(<0.20)	ND(<0.27)	1.1	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	0.83	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)
MW-11				
06/15/11	ND(<0.20)	ND(<0.27)	4.8	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	2.4	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	ND(<2)	ND(<1)

Table 8. Groundwater Sample Analytical Results - Dissolved Metals

Well ID	Mercury	Cadmium	Chromium	Lead
	EPA-245.1	EPA-200.8	EPA-200.8	EPA-200.8
	(Dissolved)	(Dissolved)	(Dissolved)	(Dissolved)
units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Target CUL:	2	5	50	15
MW-12				
06/15/11	ND(<0.20)	ND(<0.27)	5.5	ND(<0.62)
09/21/11	ND(<0.20)	ND(<0.44)	5.2	ND(<0.62)
12/06/11	ND(<0.20)	ND(<0.44)	4.3	ND(<0.62)
06/13/12	ND(<0.20)	ND(<1)	3.6	ND(<1)
Equipment Blank				
08/02/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
12/06/07 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
03/12/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
06/16/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/15/08 (MW-8)	ND (<0.2)	ND(<5)	ND(<7)	(ND(<3)
09/08/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	7.3
12/01/10 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)
03/22/11 (MW-11)	ND(<0.20)	ND(<0.44)	ND(<0.79)	ND(<0.62)

ND - Indicates analyte was not detected at level above reporting limit (shown in parentheses)

All duplicate samples were labeled as MW-7 on Chain of Custody forms prior to instalation of additional monitioring wells (5/13/10)

All duplicate samples were labeled as MW-10 on Chain of Custody forms from 5/13/10 to 3/22/11

All duplicate samples were labeled as MW-13 on Chain of Custody forms after 3/22/11

Table 9. Groundwater Elevation Data and Analytical Results

Well ID Date	Depth to Water (ft)	Groundwater Surface Elevation (ft msl)	Dissolved Arsenic Concentration (µg/L)	ORP (mV)	Temp. (°C)
MW-1					
08/02/07	5.09	12.03	7	-126	16.6
12/06/07	2.79	14.33	ND(<4)	132	9.2
03/12/08	3.66	13.46	ND(<4)	136	9.0
06/16/08	4	13.53	ND(<4)	28	13.0
09/15/08	4.82	12.3	ND(<4)	-84	16.1
03/04/09	3.5	13.62	ND(<5)	69	8.7
06/04/09	3.77	13.35	ND(<5)	-39	13.3
09/02/09	5.57	11.55	1.1	-113	17.0
11/18/09	1.61	15.51	ND(<1)	33	12.0
03/18/10	3.28	13.84	1.9	-62	9.1
06/23/10	3.34	13.78	3.6	-98	13.9
09/09/10	5.14	11.98	6.3	-122	15.8
12/02/10	2.58	14.54	3.5	-70	11.6
03/23/11	2.84	14.28	5.4	-85	
06/15/11	4	13.12	6.5	-118	12.7
09/21/11	5.59	11.53	11	-167	16.1
12/06/11	4.17	12.95	7.3	-89	11.3
06/14/12	4.04	13.08	7.3	-126	13.4
11/15/12	2.61	14.51	6.9	-146	12.6
09/17/14	5.69	11.43	6.0	-134	18.0
09/28/15	3.95	13.17	6.0	-130	17.6
09/07/16	5.45	11.67	10.0	-146	18.3
09/19/17	5.96	11.16	4.8	-106	15.7
09/20/18	5.5	11.62	12.0	-137	17.3
08/06/19	4.66	12.46	6.3	-112	20.1
09/14/20	5.07	12.05	6.6	-127	16.6
MW-2					
08/02/07	4.54	12.31	11	-107	15.9
12/06/07	2.55	14.3	12	-115	10.8
03/12/08	3.41	13.44	15	-166	9.1
06/16/08	3.23	13.62	6	-160	12.4
09/15/08	4.36	12.49	20	-129	16.0
03/04/09	3.15	13.7	8	-132	8.8
06/04/09	3.39	13.46	15	-123	14.6
09/02/09	5.15	11.7	18	-121	17.6
11/18/09	1.27	15.58	17	-113	12.0
03/18/10	2.93	13.92	7.5	-117	10.1
06/23/10	2.97	13.88	10	-141	14.8
09/09/10	4.62	12.23	22	-114	17.0
12/02/10	2.27	14.58	6.5	-84	11.9
03/23/11	2.5	14.35	7.8	-102	
06/15/11	3.59	13.26	10	-136	12.9
09/21/11	5.18	11.67	15	-135	15.9
12/06/11	3.78	13.07	4.0	-137	11.6
06/14/12	3.58	13.27	10	-146	12.3
11/15/12	2.23	14.62	14	-157	12.5
09/17/14	5.18	11.67	5.6	-143	16.2
09/28/15	3.5	13.35	4.7	-116	15.7
09/07/16	4.94	11.91	10.0	-119	18.1
09/19/17	5.64	11.21	2.2	-108	16.8
09/20/18	4.94	11.91	11.0	-109	17.0
08/06/19	4.21	12.64	13.0	-146	18.2
09/14/20	4.69	12.16	9.1	-125	17.6

Table 9. Groundwater Elevation Data and Analytical Results

Well ID Date	Depth to Water (ft)	Groundwater Surface Elevation (ft msl)	Dissolved Arsenic Concentration (µg/L)	ORP (mV)	Temp. (°C)
MW-3					
08/02/07	3.49	12.25	ND(<4)	-84	16.5
12/06/07	2.11	13.63	ND(<4)	-87	9.7
03/12/08	2.36	13.38	ND(<4)	-154	9.5
06/16/08	2.42	13.32	ND(<4)	-138	13.2
09/15/08	3.38	12.36	ND(<4)	-122	17.5
03/04/09	2.45	13.29	ND(<5)	-112	9.0
06/04/09	2.5	13.24	ND(<5)	-104	14.2
09/02/09	4.22	11.52	1.7	-102	17.0
11/18/09	0.36	15.38	2.3	-88	12.3
03/18/10	2.01	13.73	ND(<1.8)	-96	10.3
06/23/10	2.21	13.53	2.3	-113	14.7
09/09/10	3.66	12.08	5.7	-79	16.9
12/02/10	1.51	14.23	ND(<1.8)	-19	11.4
03/23/11	1.82	13.92	3.6	-86	
06/15/11	2.89	12.85	3.9	-122	13.1
09/21/11	4.16	11.58	8.4	-117	16.3
12/06/11	2.89	12.85	2.3	-96	11.3
06/14/12	2.68	13.06	2.6	-142	12.3
11/15/12	1.34	14.4	3.0	-164	12.3
09/17/14	3.34	12.4	3.0	-124	17.9
09/28/15	2.57	13.17	2.9	-67	17.5
09/07/16	3.78	11.96	7.1	-117	17.7
09/19/17	4.79	10.95	2.1	-85	17.6
09/20/18	3.91	11.83	2.1	-36	17.9
08/06/19	3.25	12.49	3.4	-118	19.4
09/14/20	3.87	11.87	1.2	-107	18.4
9/14/20 (WES-dup-1)	--	--	1.0	--	--
MW-4					
08/02/07	6.19	14.13	ND(<4)	127	17.0
12/06/07	4.07	16.25	ND(<4)	100	13.0
03/12/08	4.96	15.36	ND(<4)	85	10.3
06/16/08	4.84	15.48	ND(<4)	61	14.8
09/15/08	5.97	14.35	ND(<4)	112	18.2
03/04/09	4.71	15.61	ND(<5)	105	10.1
06/04/09	4.98	15.34	ND(<5)	106	15.4
09/02/09	6.79	13.53	ND(<1)	119	17.9
11/18/09	2.88	17.44	ND(<1)	118	13.3
03/18/10	4.52	15.80	ND(<1.8)	62	10.7
06/23/10	4.58	15.74	ND(<1.8)	37	15.8
09/09/10	6.06	14.26	ND(<1.8)	24	18.0
12/02/10	3.86	16.46	ND(<1.8)	83	12.8
03/23/11	4.1	16.22	2.5	-52	
06/15/11	5.18	15.14	1.9	47	14.0
09/21/11	6.87	13.45	ND(<1.8)	38	17.4
12/06/11	5.36	14.96	ND(<1.8)	61	12.7
06/14/12	5.16	15.16	ND(<1)	18	13.8
11/15/12	*Well inaccessible due to construction activities*				
09/17/14	*Well covered during construction activities*				
09/28/15	*Well covered during construction activities*				

Table 9. Groundwater Elevation Data and Analytical Results

Well ID Date	Depth to Water (ft)	Groundwater Surface Elevation (ft msl)	Dissolved Arsenic Concentration (µg/L)	ORP (mV)	Temp. (°C)
MW-5					
08/02/07	6.31	18.83	ND(<4)	84	17.7
12/06/07	1.54	23.60	ND(<4)	138	10.2
03/12/08	1.98	23.16	ND(<4)	79	9.3
06/16/08	3.05	22.09	ND(<4)	76	14.5
09/15/08	6.3	18.84	ND(<4)	111	18.3
03/04/09	1.75	23.39	ND(<5)	222	8.5
06/04/09	3.49	21.65	ND(<5)	14	14.9
09/02/09	7.55	17.59	1.3	49	18.0
11/18/09	0.5	24.64	1.5	29	12.3
03/18/10	1.78	23.36	ND(<1.8)	151	9.9
06/23/10	2.9	22.24	ND(<1.8)	146	16.3
09/09/10	6.94	18.20	2.2	51	18.4
12/02/10	0.7	24.44	ND(<1.8)	134	11.0
03/23/11	1.34	23.80	2.2	-13	
06/15/11	3.88	21.26	3.0	10	13.6
09/21/11	7.46	17.68	ND(<1.8)	36	17.2
12/06/11	2.73	22.41	ND(<1.8)	45	10.8
06/13/12	3.75	21.39	1.1	-119	13.4
11/15/12	*Well inaccessible due to construction activities*				
09/17/14	*Well covered during construction activities*				
09/28/15	*Unable to locate well*				
MW-6					
08/02/07	5.51	13.89	4	17	16.5
12/06/07	2.36	17.04	6	-50	10.3
03/12/08	2.79	16.61	5	-107	9.0
06/16/08	3.06	16.34	ND(<4)	-85	13.7
09/15/08	5.7	13.7	12	-84	16.5
03/04/09	2.07	17.33	6	-73	8.3
06/04/09	3.64	15.76	7	-61	13.6
09/02/09	6.42	12.98	17	-78	16.3
11/18/09	1.83	17.57	8.8	-8	12.8
03/18/10	1.94	17.46	6.0	-34	9.4
06/23/10	3.18	16.22	7.1	-52	15.0
09/09/10	4.85	14.55	15	-45	16.9
12/02/10	1	18.4	6.5	-3	10.6
03/23/11	1.32	18.08	8.0	-28	
06/15/11	3.79	15.61	8.8	-90	12.4
09/21/11	6.46	12.94	15	-89	16.0
12/06/11	3.58	15.82	6.8	-5	10.9
06/13/12	3.79	15.61	4.5	-6	14.6
11/16/12	2.14	17.26	4.4	-70	12.6
09/17/14	5.44	13.96	7.2	-95	17.6
09/28/15	3.03	16.37	6.6	-94	18.0
09/07/16	7.53	11.87	14	-93	17.2
09/20/17	5.96	13.44	12	-47	16.6
09/21/18	5.72	13.68	11	-77	16.9
08/06/19	5.8	13.6	8.9	-70	15.7
09/14/20	6.1	13.3	5.9	-64	15.8

Table 9. Groundwater Elevation Data and Analytical Results

Well ID Date	Depth to Water (ft)	Groundwater Surface Elevation (ft msl)	Dissolved Arsenic Concentration (µg/L)	ORP (mV)	Temp. (°C)
MW-7					
06/23/10	10.15	7.54	6.6	-90	15.7
09/09/10	10.09	7.6	5.3	-98	16.8
12/02/10	8.96	8.73	7.6	-87	14.3
03/23/11	8.89	8.8	7.1	-105	
06/15/11	9.49	8.2	7.6	-160	12.5
09/21/11	9.69	8	8.7	-137	16.8
12/06/11	9.49	8.2	8.5	-122	13.0
06/13/12	9.53	8.16	9.7	-149	13.9
11/15/12	9.4	8.29	12	-156	15.3
09/17/14	10.53	7.16	8.5	-148	17.6
09/28/15	10	7.69	7.9	-78	18.8
09/07/16	10.02	7.67	5.5	-120	16.9
09/20/17	11.01	6.68	24	-92	17.6
09/20/18	10.42	7.27	10	-110	17.5
08/06/19	10.76	6.93	7.1	-111	16.6
08/06/19 (WES-Dup.-1)	10.76	6.49	9	-111	16.6
09/15/20	11.2	8.43	11	-127	17.6
MW-8					
06/23/10	3.74	13.81	2.7	-195	15.2
09/09/10	5.33	12.22	2.5	-174	17.6
12/02/10	3.02	14.53	2.5	-155	12.4
03/23/11	3.28	14.27	2.7	-146	
06/15/11	4.37	13.18	3.3	-212	13.0
09/21/11	5.84	11.71	2.0	-204	18.2
12/06/11	4.55	13	ND(<1.8)	-87	12.1
06/13/12	4.33	13.22	1.9	-211	14.4
11/15/12	2.97	14.58	1.4	-134	14.2
09/17/14	5.14	12.41	1.9	-165	18.3
09/28/15	4.23	13.32	2.1	-101	19.1
09/08/16	5.62	11.93	ND(<2.0)	-63	19.1
09/19/17	6.34	11.21	1.6	-117	17.8
09/20/18	5.64	11.91	2.0	-132	18.0
08/06/19	4.95	12.6	1.1	-150	18.2
09/15/20	5.42	12.13	ND(<1.0)	-176	18.5
MW-9					
06/23/10	3.19	13.82	3.8	-179	14.2
09/09/10	4.81	12.2	2.8	-185	16.0
12/02/10	2.5	14.51	3.0	-145	12.5
03/23/11	2.75	14.26	5.5	-144	
06/15/11	3.84	13.17	6.2	-168	12.5
09/21/11	5.36	11.65	3.0	-202	16.3
12/06/11	4.02	12.99	3.8	-179	11.7
06/13/12	3.8	13.21	4.6	-174	13.0
11/15/12	2.45	14.56	2.9	-196	12.5
09/17/14	4.62	12.39	2.1	-158	16.5
09/28/15	3.7	13.31	2.4	-129.1	16.26
09/08/16	5.1	11.91	2.8	-155.5	16.95
09/20/17	6.81	10.2	3.0	-156.9	15.18
09/21/18	5.1	11.91	2.8	-117	16.31
08/06/19	4.41	12.6	ND (<1.0)	-209.3	18.32
09/15/20	4.59	12.42	1.9	-172.8	16.7

Table 9. Groundwater Elevation Data and Analytical Results

Well ID Date	Depth to Water (ft)	Groundwater Surface Elevation (ft msl)	Dissolved Arsenic Concentration (µg/L)	ORP (mV)	Temp. (°C)
MW-10					
06/15/11	8.5	9.06	2.1	36	13.0
09/21/11	9.82	7.74	ND(<1.8)	29	16.4
12/06/11	8.16	9.4	ND(<1.8)	57	12.0
06/13/12	8.7	8.86	1.5	-43	14.2
11/16/12	8.95	8.61	2.5	18	14.8
09/17/14	9.25	8.31	8.9	-93	18.0
09/28/15	8.25	9.31	11	-18	18.7
09/08/16	9.4	8.16	5.8	-95	18.9
09/16/17	11.07	6.49	8.1	-27	17.2
09/21/18	9.89	8.58	19	-69	17.8
08/06/19	10.74	6.82	10	-58	16.6
09/15/20	9.94	7.62	16	-62	17.3
MW-11					
06/15/11	9.36	7.98	4.3	-117	13.3
09/21/11	9.58	7.76	7.5	-165	17.7
12/06/11	9.29	8.05	5.2	-126	13.0
06/13/12	9.42	7.92	6.2	-150	14.5
11/16/12	9.43	7.91	7.9	-139	14.3
09/17/14	10.22	7.12	2.9	-143	17.5
09/28/15	9.88	7.46	7.9	-102	18.2
09/08/16	9.78	7.56	6.5	-144	22.3
09/20/17	10.66	6.68	6.7	-94	16.7
09/20/18	10.21	7.13	11	-120	17.5
08/06/19	10.52	6.82	5.1	-117	17.3
09/15/20	10.93	6.41	3.4	-111	17.6
MW-12					
06/15/11	8.4	7.24	3.4	-97	13.8
09/21/11	8.73	6.91	ND(<1.8)	-116	17.9
12/06/11	8.5	7.14	1.8	-71	13.1
06/13/12	8.55	7.09	1.8	-55	14.1
11/16/12	8.24	7.4	1.5	-66	14.8
09/17/14	9.5	6.14	3.9	-102	17.9
09/28/15	8.91	6.73	2	-224	17.9
09/08/16	10.6	5.04	13	-93	18.3
09/19/17	9.03	6.61	3.4	10	17.4
09/21/18	9.32	6.32	6.4	-46	18.2
08/06/19	8.99	6.65	7.4	-64	18.0
09/15/20	9.38	6.26	16	-77	18.6

Blank cell indicates meter error

Table 10. 2012 Test Pit Soil Sample Analytical Results - TCLP Metals

Sample ID	TP2012-1	TP2012-2	TP2012-3	TP2012-4	TP2012-5	TP2012-6	TCLP Max Concentration*
Date	05/02/12	05/02/12	05/02/12	05/02/12	05/02/12	05/02/12	(mg/L)
Metals - EPA 6020/1311 (mg/L)							
Arsenic	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	5
Barium	0.47	0.52	0.37	0.23	0.37	0.30	100
Cadmium	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	1
Chromium	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	5
Lead	0.25	0.16	ND (<0.025)	ND (<0.025)	0.05	ND (<0.025)	5
Selenium	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	1
Silver	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	ND (<0.025)	5
Metals - EPA 7470/1311 (mg/L)							
Mercury	ND (<0.0002)	ND (<0.0002)	ND (<0.0002)	ND (<0.0002)	ND (<0.0002)	ND (<0.0002)	0.2

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

* WAC 173-303-090(8)(c) Toxicity Characteristics List

APPENDIX B

WES Field Protocols

FIELD PROTOCOLS

1.1 PRELIMINARY ACTIVITIES

Prior to the onset of field activities at the Site, Whatcom Environmental Services obtains any appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Whatcom Environmental marks any excavation or borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark underground utilities. Excavation or borehole locations may also be checked for underground utilities by a private geophysical surveyor. Prior to drilling, borehole locations are cleared to at least 5 feet deep. Fieldwork is conducted under the advisement of a registered professional hydrogeologist and in accordance with a site-specific health and safety plan prepared for the project, which is available at the job site during field activities.

1.2 SOIL BORINGS AND SOIL SAMPLING PROCEDURES

Whatcom Environmental contracts a licensed driller to advance the borings and collect soil samples. The specific drilling method (e.g., hollow-stem auger, direct push method, or sonic drilling), sampling method [e.g., core barrel or California-modified split spoon sampler (CMSSS)] and sampling depths are documented on the boring log and may be specified in a work plan. Soil samples are typically collected at the capillary fringe and at 5-foot intervals to the total depth of the boring. To determine the depth of the capillary fringe prior to drilling, the static groundwater level is measured with a water level indicator in the closest monitoring well to the boring location, if available.

The borehole is advanced to just above the desired sampling depth. For CMSSSs, the sampler is placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The sampler is driven into the soil with a standard 140-pound hammer repeatedly dropped from a height of 30 inches onto the sampler. The number of blows required to drive the sampler each 6-inch increment is recorded on the boring log. For core samplers (e.g., direct push), the core is driven 4-5 feet using the rig apparatus.

Soil samples are preserved in the metal or plastic sleeve used with the CMSSS or core sampler, in glass jars or other manner required by the local regulatory agency (e.g., Environmental Protection Agency Method 5035). Soil samples are collected as discrete samples and placed in containers provided by the laboratory. Samples are placed in a chilled cooler and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol.

1.2.1 Field Screening Procedures

Whatcom Environmental places soil from the sampling interval in a plastic re-sealable bag, after which the tip of a photo-ionization detector (PID) is inserted through the plastic bag to measure organic vapor concentrations in the headspace. The PID measurement is recorded on the boring log. The organic vapor headspace analyses are conducted using a MiniRAE Model 3000 PID equipped with a 10.6 eV lamp (or equivalent). At a minimum, the PID is calibrated on a daily basis in accordance with manufacturer's specifications using a hexane or isobutylene standard. The calibration gas and concentration are recorded on a calibration log.

Sheen tests are conducted using a portion of the soil core and distilled water. Sheen tests are recorded as: NS – no sheen, VSS – very slight sheen, SS – slight sheen, MS – moderate sheen, and HS – heavy sheen.

Whatcom Environmental personnel describe the soil according to the Unified Soil Classification System and record the description on the boring log, which is included in the final report.

1.2.2 Backfilling of Soil Borings

If a well is not installed, the boring is backfilled from total depth to approximately 5 feet below ground surface (bgs) with either neat cement or bentonite grout. The boring is backfilled from 5 feet bgs to approximately 1-foot bgs with hydrated bentonite chips. The borehole is completed from 1-foot bgs to surface grade with material that best matches existing surface conditions and meets local agency requirements.

1.3 EXCAVATION SOIL SAMPLING PROCEDURES

During excavation activities, exposed soil from the bottom and sidewalls of the excavation is field screened for petroleum, soil staining, and/or discoloration. Samples of the soil are also periodically screened for the presence of volatile organic compounds using a photoionization detector (PID), with the vapor readings noted. Performance samples may be collected during the excavation to confirm the presence of contaminants and provide information regarding soil disposal classes/categories.

Confirmation soil samples are collected from the bottom and sidewalls of the excavation when field screening indicates that contaminant concentrations are below the established Site cleanup levels. All sampling locations are recorded with respect to lateral and vertical locations. Soil samples may be collected directly from the excavation using hand-sampling equipment such as a stainless-steel spoon, trowel, or hand auger. Samples collected in the deeper areas of an excavation are collected directly from the excavator bucket by removing approximately 6 inches of soil from the bucket (thereby exposing fresh soil) and collecting a sample from the middle of the bucket. The sample is placed into a laboratory-supplied glass sample container with a Teflon-lined lid. Soil samples are collected as discrete samples and placed in containers provided by the laboratory. Samples are placed in a chilled cooler and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol. Excavation soil samples are field screened as outlined in Section 1.2.1.

1.4 MONITORING WELLS AND GROUNDWATER SAMPLING PROCEDURES

Groundwater samples may be collected from either a temporary or permanent well installed in the borehole. Wells are sampled using the low-flow sampling technique, recommended and approved by the U.S. Environmental Protection Agency. The low-flow sampling technique minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. Prior to sampling, the depth-to-water is measured in each well, to use in calculating the groundwater elevation for the sampling event. A YSI Model 556 multi probe meter is used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging is considered adequate and groundwater samples are collected when the water chemistry parameters stabilize.

The water sample is stored in laboratory-supplied containers constructed of the correct material and with the correct volume and preservative to comply with the proposed laboratory test. Dissolved metals samples are filtered in the field using a disposable 0.45 µm in-line filter. Containers are slowly filled with the retrieved water sample until no headspace remains and then promptly sealed with a Teflon-lined cap, checked for the presence of bubbles, labeled, entered onto a COC record and placed in a chilled cooler. Laboratory-supplied trip blanks accompany the water samples (as required by the laboratory) as a quality assurance/quality control procedure. Equipment blanks and duplicate samples may be collected as required. The samples are kept in chilled storage and transported under COC protocol to a client-approved, state-certified laboratory for analysis.

1.4.1 Well Construction

A well (if constructed) is completed using materials documented on the boring log or specified in a work plan. The well is constructed with slotted casing across the desired groundwater sampling depth(s) and completed with blank casing to within 6 inches of surface grade. No further construction is conducted on temporary wells.

For permanent wells, the annular space of the well is backfilled with sand from the total depth to approximately 2 feet above the top of the screened casing. A hydrated granular bentonite seal is placed on top of the sand filter pack. Grout may be placed on top of the bentonite seal to the desired depth. The well may be completed to surface grade with a 1-foot thick concrete pad. A well monument and cap for the well casing are installed to protect against surface water infiltration. Site-specific well construction details including type of well, well depth, casing diameter, slot size, length of screen interval and sand size are documented on the well construction diagram.

1.4.2 Well Development

If a permanent groundwater monitoring well is installed, the grout is allowed to cure a minimum of 48 hours before development. Whatcom Environmental personnel use a new bailer or submersible pump to develop the newly installed well. The well is developed until sufficient well casing volumes are removed so that turbidity is within allowable limits or the well goes dry. The volume of groundwater extracted is recorded on a log.

1.4.3 Surveying

If required, wells are surveyed by a licensed land surveyor relative to an established benchmark of known elevation above mean sea level to an accuracy of +/- 0.01 foot. The casing is notched or marked on the north side to identify a consistent surveying and measuring point.

1.4.4 Decontamination Procedures

Whatcom Environmental or the contracted driller decontaminates all sampling equipment prior to and between each sampling event to reduce the potential for cross contamination. Drilling equipment is steam-cleaned prior to drilling the borehole and at completion of the borehole.

1.4.5 Investigation Derived Waste Handling

Soil cuttings generated from the drilling or sampling are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids and purge water from well development and sampling activities, if conducted, are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal.

1.5 SOIL GAS PROBE INSTALLATION AND SAMPLING

Soil gas samples may be collected from temporary or permanent soil gas probe locations. Soil gas probes are constructed using direct-push probe equipment consisting of a two-inch steel rod and an expendable point driven to the desired depth for the probe to be completed. The probe consists of a six-inch stainless-steel mesh screen attached to Teflon® or Nylaflow® tubing. The tubing is used to extend the probe from the mesh screen to ground surface. Probe construction is accomplished by lowering the mesh screen and tubing into the open direct-push rods. The rods are then withdrawn from the boring and the resulting annular space around the tubing is backfilled with sand and granulated bentonite to the depth shown on the boring logs. The probe is sealed at the ground surface with a watertight two-way valve for sampling purposes. A well monument is installed to protect against surface water infiltration. The cover is grouted in place with concrete. Each soil gas probe is screened above the groundwater capillary zone, as recommended in the Washington State Department of Ecology (Ecology) draft guidance

document, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action(Vapor Intrusion Guidance, 2018).

1.5.1 Soil Gas Probe Purging

Purging the soil gas probe prior to sampling helps ensure a representative soil gas sample is collected. Using the following equation for one well volume, three volumes are purged during the leak testing using a hand pump or peristaltic pump:

$$V\ (in^3) = \pi r^2 l$$

Then to convert units from cubic inches to mL:

$$V\ (in^3) * 16.39\ (mL/in^3) = V\ (mL)$$

Where:

V = One volume of tubing/soil gas in probe

r = inner radius of tubing/soil gas probe (inches)

l = length of tubing being used from sample container to screened interval (inches)

π = 3.14 (unitless)

1.5.2 Shut-In Procedure for Soil Gas Sampling

Shut-in tests are performed on the soil-gas sampling train to verify that the tubing and connections used for sampling are airtight. Leaks into the sampling train could compromise the data by allowing ambient air to enter the sample, potentially diluting the sample and biasing results low. The following procedure are performed prior to sampling.

1. Fully close the valve of the Summa-canister and note vacuum reading.
2. Connect an appropriate flow regulator to the Summa canister using a quick connect.
3. Tighten the brass cap (included with the canister) to the end of the flow regulator with a wrench. Once the flow regulator is secured, the shut-in test should be completed by quickly opening and closing the summa-canister valve. If the needle on the vacuum gauge drops, the train was not airtight, and the connections should be refitted. This process should be repeated until no significant leakage has been demonstrated.
4. After successful completion of Step 3, remove the brass plug from the end of the flow regulator. Connect this end of the Teflon-lined tubing to the flow regulator using a Swagelok-compression fitting.
5. Connect the other end of the sample tubing to a hand-held vacuum pump (with gauge) using flexible silicon tubing.

6. With the canister valve closed and using the pump, increase the vacuum inside the sampling train to approximately 15 to 20-in Hg. This reading should be maintained for at least 30 seconds. If leakage is detected, the connections should be checked and reattached. This process will be repeated until no significant leakage has been demonstrated.

Soil gas samples are collected after confirming airtightness in the sample train.

1.5.3 Soil Gas Sampling

Soil gas samples are collected through the soil gas probes in accordance with the following protocol:

- Once the soil gas probe has been purged and the shut-in tests completed, the Teflon/Nylaflow tubing connected the Summa canister is connected directly to the two-way valve connected to the soil-gas probe.

- The Summa canister valve is then opened, allowing the canister to be filled for approximately 5 to 10 minutes. Samples should be noted with Summa canister serial numbers, beginning and ending canister pressure readings, location, purge duration, date, and time.
- The collected soil gas samples are submitted to an analytical laboratory for analysis within 48 hours of sampling. Chain-of-custody procedures are followed to document sample handling.

APPENDIX C

Soil Borelogs

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-1 (MW-1)**
Location: NW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with minor gravel, Brown, Firm, Dry	3-3-3	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet	1-3-1	0.0	SS	
12.5' to 14' Silty clay with minor fine sand and gravel, Olive gray with minor gray vertical fractures, Firm, Dry	5-7-11	0.0	NS	
NOTE: Drilling was refused twice approximately 6 feet east prior to completion of this boring. Both attempts were abandoned with bentonite chip.				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-2 (MW-2)**
Location: West center fence line
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~6 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' 2.5' to 3' - Gravel up to 1.5", Loose, Dry 3' to 4' - Clayey silt with moderate gravel, Brown, Firm, Dry	4-5-4	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet (1 ft of recovery)	1-2-1	0.0	NS	
12.5' to 14' Medium to coarse sand, Olive gray, Loose, Wet (recovery limited due to excessive water in sample spoon)	11-15-17	0.0	SS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-3 (MW-3)**
Location: SW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~7 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' No Recovery	7/11/27			
7.5' to 9' Clayey fine sand with minor gravel, Gray, Firm, Wet	0-0-1	0.0	NS	
12.5' to 14'	0-1-1	0.0	NS	
12.5' to 13' - Peat, Dark brown, Sticky, Firm, Wet				
13' to 14' - Clayey fine sand with shell fragments and minor gravel, Gray, Loose, Wet				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-4 (MW-4)**
Location: SW corner of concrete pad of old forge building
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~8 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Poor recovery. Some material in shoe. Silty clay with gravel, Light brown, Firm, Dry	2-3-3	0.0	NS	
7.5' to 9' Silty sand with minor gravel, Light brown, Loose, Wet (half of spoon recovery)	9-14-12	0.0	NS	
12.5' to 14' Silty clay with minor gravel, Brown with orange mottling, Hard, Moist to dry	10-14-15	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-5 (MW-5)**
Location: South center of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~7.5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Fine Sand with abundant gravel (to 3"), Brown, Firm, Dry	19-26-26	0.0	NS	
7.5' to 9' Silty fine to medium sand with moderate gravel (to 2"), Brown, Firm, Wet Silt layer at 8.5', dry Medium sand in shoe	13-20-26	0.0	NS	
12.5' to 14' Silty fine sand with minor gravel (to 1"), Gray, Firm, Slightly moist	20-41-23	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-6 (MW-6)**
Location: NE corner of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water:
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with moderate gravel (to 3"), Brown, Firm, Dry	2-3-2	0.0	NS	
7.5' to 9' Silty sand with gravel, Brown, Loose, Wet Layer of organic material a 8' bgs (decomposed wood and soil layer)	1 for 18"	0.0	NS	
12.5' to 14' Silty clay with minor gravel (to 1"), Gray, Firm, Moist Changed to Brown, Hard, Dry at 13' bgs	4-11-14	0.0	NS	

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-7 (MW-7)**
Location: Near entrance to parking lot
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 9 ft
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Very coarse gravel fill. Brown, loose, moist. Pieces of brick noted.		0.0	NS	
5 - 6.5'	Sandy silt with gravel, gray, firm, moist	2.2.9	0.0	NS	
7.5 - 9'	Sandy silt with gravel, gray, firm, wet	4.4.6	0.0	NS	**X**
12.5 - 13.5'	Sandy silt with gravel, gray, firm, very wet	4.4.5			
13.5 - 14'	Clayey silt, gray, firm, moist		0.0	NS	
17.5 - 19'	Clayey silt, gray, firm, moist	5.7.12	0.0	NS	

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-8 (MW-8)**
Location: West of MW-1
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
5 - 7.5'	No recovery.	4.11.4			
7.5 - 8.5'	Sand, brown, loose, wet	3.5.4			
8.5 - 9'	Sandy gravel, brown, loose, wet		1.0	VSS	
12.5 - 14'	Little recovery. Wood debris present. Gravelly sand, dark brown, loose, wet	14.14.9	2.5	SS	**X**

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-9 (MW-9)**
Location: Northwest of MW-2
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Gravel with brick pieces and wood debris. Pocket of water in hole at 4' with heavy to moderate sheen.				
5 - 6.5'	Silty sand with minor gravel, black, coarse, wet. Encountered metal debris.	4.6.4	0.4	SS	
7.5 - 9'	Sand, dark brown to black, loose, wet. Encountered brick.	4.6.9	0.9	SS	
12.5 - 14'	Gravelly sand, black with organics, loose, wet. Oil globules observed in sample.	7.15.11	6.0	HS (globules)	**X**

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-10 (MW-10)**
Location: Northwest of MW-7
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~13 ft
Total Depth: 15.5 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil				
0.8' - 3.5' Very gravelly sandy silt, brown, hard, moist - Some brick and metal railroad debris at 2 feet				
3.5' - 5' Fine sandy silt with minor gravel, brown, firm, moist				
5' - 6.5' Sandy silt, minor gravel, brown, loose, moist - Charcoal/organics at 6 feet	5-4-5	0.0	NS	
7.5' - 9' Poor recovery, pounded rock. Clayey silt with sand, minor gravel, brown, firm, moist	7-7-7	0.0	NS	
12.5' - 14 Silty clay, gray with orange mottling, plastic, slightly wet	3-3-4	0.0	NS	14'

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-11 (MW-11)**
Location: West of B-8
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil/organic				
0.8' - 5' Cobbley and gravelly sandy clayey silt, brown, hard, moist				
- Gray material at 3 feet, associated with old soil horizon		0.0	SS	
- Red brick at 5 feet				
5' - 6.5' Gravelly sandy silt, dark gray, loose, moist	2-3-3	0.0	VSS	
7.5' - 8' Gravelly sandy silt, dark gray, loose, moist	3-4-4	0.0	VSS	
8' - 9' Sandy silt with gravel, gray, firm, moist		0.0	VSS	
12.5' - 14' Gravelly sand, gray, loose, wet	11-8-4	0.0	VSS	14'

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-12 (MW-12)**
Location: Northeast of Admin. Building
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.3' Asphalt				
0.3' - 0.7' Crushed rock/gravel				
0.7' - 5' Cobbley, gravelly sandy silt with clay (diamicton), brown, hard, moist.				
5.5' - 7.0' Very gravelly sandy silt, gray, hard, moist.	24-25-18	0.0	VSS	
7.5' - 9' Very gravelly sandy silt, gray, firm, moist to slightly wet.	4-8-14	0.0	VSS	
12.5' - 14 Very gravelly sandy silt, gray, firm, loose, wet.	1-1-2	0.0	VSS	14'

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: **MW-13**
Location: S Of Cypress Design at edge of grassy area
Date Completed: 10/28/2020

Sheet:
Drilled by: Bore-Tech
Logged by: Thom Davis - WES
Field Screened by: Thom Davis WES
First Encountered Water: 11.0 ft
Total Depth: 15 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
Surface	Grass and gravel				
2.5 to 4.0 ft.	Fine to medium sand, minor gravel, brown, firm, dry.	18-10-18	0.4	VSS	
	Gravel/cobbles at ~5.0 ft bgs				
7.5 to 9.0 ft.	Fine sandy gravelly silt with minor clay, brown, hard, moist.	13-27-29	1.2	VSS	8'-9'
	Gravel/cobbles at ~9.0 ft bgs and again at ~11.0 ft bgs				
12.5 to 14.0 ft.	Medium sand with gravel and silt, brown, firm, wet.	16-20-22	0.8	VSS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: **MW-14**
Location: West of eastern most building on North side of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: Thom - WES
Field Screened by: Thom Davis WES
First Encountered Water: None
Total Depth: 15 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
Surface	~3 inches of asphalt				
0.25 to 1.5 ft.	Sandy gravel, brown, loose, moist.		0.0	NS	
1.5 to 12.0 ft.	Silty sandy clay with gravel, brown, hard, moist.		0.0	NS	
12.0 to 15.0 ft.	Sandy clay, brown, hard, moist.		0.0	NS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-1-20
Location: S Of Cypress Design at edge of grassy area
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~7.5 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 10 ft	Brown silty fine to medium sand with gravel				
	(dense, moist) (fill)	2.5-4.0 ft	0.0	VSS	
		5.0-6.5 ft	0.0	VSS	
		7.5-9.0 ft	0.0	VSS	
10 ft to 15 ft	Brown silty fine to medium sand with gravel	10.0-11.5 ft	0.0	VSS	
	(dense, wet) (glaciomarine drift)				
15 ft to 20 ft	Brown silty fine to medium sand with gravel	15.0-16.5 ft	0.0	NS	
	(medium dense, wet)				
20 ft to 30 ft	Gray silty fine to medium sand to silt with occasional	20.0-21.5 ft	0.0	NS	
	gravel (dense, wet) (glacially consolidated soils)	5.0-26.5 ft	0.0	NS	
		27.5-29.0 ft	4.5	SS	28.5'
30 ft to 40 ft	Gray silty fine to medium sand to silt with occasional	30.0-31.5 ft	3.5	VSS	
	gravel (becomes vey dense)				
		35.0-36.5 ft	8.7	SS	35.5'
40 ft to 45 ft	Gray silty fine to medium sand to silt with occasional	40.0-41.5 ft	0.0	VSS	
45 ft to 51.5 ft	Gray silty fine to medium sand to silt with gravel	45.0-46.5 ft	0.0	VSS	
		50.0-51.5 ft	0.0	NS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-2-20
Location: S edge of property near driveway from WWTP
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~20 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 7.5 ft	Brown silty fine to medium sand with gravel	2.5-4.0 ft	0.8	VSS	4'
	(medium dense, moist) (fill)	5.0-6.5 ft	0.0	SS	
7.5 ft to 10 ft	Gray silty sand with gravel (medium dense, moist)	7.5-9.0 ft	0.0	SS	9'
	(glaciomarine drift)				
10 ft to 15.5 ft	Gray silty sand with gravel (becomes denser, moist);	10.0-11.5 ft	0.0	VSS	
	increased silt content				
15.5 ft to 17 ft	Gray silt and sand with gravel (very dense/hard,	15.0-16.5 ft	0.0	VSS	
	moist)				
17 ft to 20 ft	Brown silty clay with occasional gravel (dense, wet)				
20 ft to 26 ft	Gray silty sand with occasional gravel (dense, wet)	20.0-21.5 ft	0.0	NS	
	(glacially consolidated soil)	25.0-26.5 ft	0.0	NS	
26 ft to 28 ft	Gray-brown silty sand (dense, wet)				
28 ft to 30 ft	Gray silty sand with occasional gravel (dense, wet)	27.5-29.0 ft	0.0	NS	
30 ft to 33 ft	Gray silty sand with occasional gravel (medium dense,	30.0-31.5 ft	0.0	NS	
	wet)				
33 ft to 45.5 ft	Gray silty sand with occasional gravel (very dense,	32.5-34.0 ft	0.0	NS	
		40.0-41.5 ft	0.0	NS	
45.5 ft to 50.5 ft	Gray silty sand with gravel	45.0-46.5 ft	0.0	NS	
	(becomes dense, moist)				
50.5 ft to 51.5 ft	Gray silty sand with gravel (becomes very dense)	50.0-51.5 ft	0.0	NS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-3-20
Location: Near the SW corner of 210 McKenzie fence/NE of MW-3
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~5.0 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 5 ft	Brown clayey fine to medium sand with silt and occasional gravel (loose, moist) (fill)	2.5-4.0 ft	0.0	SS	
	Brick debris observed				
5 ft to 7 ft	Becomes very loose, with bricks, debris and decomposed organic matter, wet	5.0-6.5 ft	0.0	VSS	
	Brick/paint chip/woody debris observed				
7 ft to 10 ft	Brown fine to medium sand with silt (very loose, wet)				
	Poor recovery - limited sample - very wet	7.5-9.0 ft	2.1	HS	
	Black oil globules observed				
10 ft to 15 ft	Same as above, loose, with motor oil	10.0-11.5 ft	2.9	HS	
	Black oil globules observed	12.5-14.0 ft	3.4	HS	12.5'
	Poor recovery- very wet, black oil globules observed				
15 ft to 20 ft	Gray clay (very stiff, wet) (glaciomarine drift)	15.0-16.5 ft	3.1	MS	
	Poor recovery- oily water and metal debris	17.5-19.0 ft	2.4	VSS	19'
20 ft to 28 ft	Same as above (medium stiff to stiff, wet)	20.0-21.5 ft			
		25.0-26.5 ft	1.9	SS	
28 ft to 31 ft	Same as above (very stiff, wet, with occasional gravel)				
	Heavy sheen likely due to upper PCS and water migration	27.5-29.0 ft	1.7	HS	
	Heavy sheen on outer clay surface due to upper contamination	30.0-31.5 ft	1.8	HS	
31 ft to 40 ft	Gray silty fine to medium sand with gravel (very dense, wet) (glacially consolidated soil)	32.5-34.0 ft	1.8	SS	
		35.0-36.5 ft	1.3	SS	
40 ft to 51.5 ft	Gray silty fine to medium sand with gravel (very dense, wet), becomes brown	40.0-41.5 ft	0.0	NS	
		45.0-46.5 ft	0.0	SS	
		50.0-51.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-4-20
Location: Outside fence at NW corner of site
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~8 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
0 ft to 5 ft	Brown silty fine to medium sand with occasional gravel (medium dense, moist) (fill)	2.5-4.0 ft	1.2	VSS	
5 ft to 12.5 ft	Increased gravel content, decreased silt content				
	Moist to slightly wet	5 ft	25.8	SS	5'
	Moist to slightly wet	7.5-9.0 ft	8'	2.7	VSS
	Wet	10 ft	3.9	VSS	10'
12.5 ft to 18 ft	Gray silty fine to medium sand with gravel	12.5-14.0 ft	0.0	VSS	
	(very dense, wet) (glacially consolidated soil)	15.0-16.5 ft	0.0	VSS	
18 ft to 20 ft	Trace clay	17.5-19.0 ft	0.0	VSS	
20 ft to 30 ft	Gray silty fine to medium sand with gravel	20.0-21.5 ft	0.0	VSS	
	(dense, wet)	25.0-26.5 ft	0.0	VSS	
30 ft to 31.5 ft	Same as above, becomes very dense	30.0-31.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-5-20
Location: Near center of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~10 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
	3 inches cement concrete				
0.25 t to 5 ft	Brown silty fine to medium sand with gravel (dense,				
	moist) (fill)				
	Cobble in shoe - poor recovery	2.5-4.0 ft	0.5	VSS	
	Driller noted somewhat cobbly at ~4 ft bgs				
5 ft to 10 ft	Same as above with occasional cobbles	5.0-6.5 ft	0.0	VSS	
	Poor Recovery - rocky				
	Driller noted somewhat cobbly at ~6 ft and ~7 ft bgs	7.5-9.0 ft	2.5	VSS	9'
10 ft to 15 ft	Same as above, becomes wet	10.0-11.5 ft	1.9	VSS	11.5'
		12.5-14.0 ft	0.0	VSS	
15 ft to 18 ft	Gray silty fine to medium sand with gravel (very	15.0-16.5 ft	0.0	VSS	
	dense, wet) (glacialy consolidated soil)				
		17.5-19.0 ft	0.0	VSS	
18 ft to 20 ft	Trace clay, decreased gravel content				
20 ft to 25 ft	Same as above, become dense	20.0-21.5 ft	0.0	NS	
25 ft to 30 ft	Same as above, becomes gray	25.0-26.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-6-20
Location: West of eastern most building on North side of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~157.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
	~ 1.5 ft of sandy gravel below asphalt		0.0	VSS	
0.5 ft t 5 ft	Brown sandy clay with occasional gravel	2.5-4.0 ft	0.0	VSS	
	(very stiff, moist) (fill)				
5 ft to 8 ft	Brown clayey sand with occasional gravel	5.0-6.5 ft	0.0	NS	
	(loose, moist) (glaciomarine drift)	7.5-9.0 ft	0.0	NS	9'
8 ft to 10 ft	Same as above, with occasional cobbles				
10 ft to 12.5 ft	Same as above, without occasional cobbles	10.0-11.5 ft	0.0	NS	11.5'
12.5 ft to 15 ft	Brown silty sand with gravel (very dense, moist)	12.5-14.0 ft	0.0	NS	
15 ft to 17.5 ft	Brown silt with occasional gravel (very stiff, wet)	15.0-16.5 ft	0.0	VSS	
17.5 ft to 20 ft	Gray sandy silt with clay and occasional gravel	17.5-19.0 ft	0.0	VSS	
	(very stiff, wet)				
	Driller noted cobbles at ~19 ft bgs				
20 ft to 25 ft	Brown silty fine to medium sand with gravel (dense	20.0-21.5 ft	0.0	VSS	
	to very dense, wet) (glacially consolidated soil)				
25 ft to 30 ft	Same as above, becomes medium dense	25.0-26.5 ft	0.0	VSS	
30 ft to 31.5 ft	Same as above, becomes dense	30.0-31.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-7-20
Location: Near the center of the west side of the property
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~6.5 ft
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Gravel				
0 ft to 5 ft	Brown-gray fine to medium silty sand with gravel, trace clay (very loose, moist) (fill)	2.5-4.0 ft	0.0	VSS	
5 ft to 8 ft	Brown silty clay with gravel (soft, wet)	5.0-6.5 ft	0.0	VSS	
8 ft to 10 ft	Same as above, becomes gray	7.5-9.0 ft	0.0	VSS	
10 ft to 12.5 ft	Brown organic matter with peat (soft, wet)	10.0-11.5 ft	0.0	NS	
12.5 to 15 ft	Brown gravel with sand, silt and clay (loose, wet)	12.5-14.0 ft	0.0	VSS	13'
15 ft to 18 ft	Gray clay (medium stiff, wet) (glaciomarine drift)	15.0-16.5 ft	0.0	NS	
18 ft to 25 ft	Same as above, becomes stiff	17.5-19.0 ft	0.0	VSS	19'
		20.0-21.5 ft	0.0	VSS	
25 ft to 26.5 ft	Same as above, with occasional gravel	25.0-26.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-8-20
Location: In asphalt at center of east side of property
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: None
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of asphalt concrete pavement				
0.25 ft to 5 ft	Brown clayey silt with occasional gravel (medium stiff, moist) (fill)	2.5-4.0 ft	0.0	NS	
5 ft to 10 ft	Brown clay with occasional gravel (stiff, moist) (glaciomarine drift)	5.0-6.5 ft	0.3	NS	5'
		7.5-9.0 ft	1.4	NS	9'
10 ft to 15 ft	Brown clayey silt (very stiff, moist)	10.0-11.5 ft	0.0	NS	
		12.5-14.0 ft	0.0	NS	
15 ft to 16.5 ft	Same as above, increased moisture content	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-9-20
Location: Inside WWTP at SW corner of property
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~7 ft
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Grass				
	6 inches sod				
0.5 ft to 5 ft	Dark gray silty fine to medium sand (medium dense, moist) (fill)	2.5-4.0 ft	0.0	NS	
5 ft to 7 ft	Same as above, becomes very loose	5.0-6.5 ft	0.0	NS	
7 ft to 10 ft	Dark gray silt with sand (very soft, wet)	7.5-9.0 ft	1.7	VSS	7.5'
10 ft to 15 ft	Black silt with organic matter (very soft to medium stiff, moist)	10.0-11.5 ft 12.5-14.0 ft	0.3 0.0	SS NS	10'
15 ft to 16.5 ft	Gray clayey silt (medium stiff, wet) (glaciomarine drift)	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				
	*Additional XRF readings available in Table 2				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-10-20
Location: Inside WWTP at NE corner near electrical transformer
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~10 ft
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Grass				
	4 inches sod				
0.33 ft to 8 ft	Brown fine to medium sand with gravel (dense, moist) (fill)	2.5-4.0 ft	0.0	NS	
		5.0-6.5 ft	2.7	SS	5'
8 ft to 10 ft	Same as above, with occasional silt	7.5-9.0 ft	0.0	NS	
10 ft to 13 ft	Brown silty fine to medium sand with gravel	10.0-11.5 ft	2.0	NS	11.5'
	(dense, wet) (glacially consolidated soil)				
13 ft to 15 ft	Same as above, with decreased gravel content	12.5-14.0 ft	0.0	NS	
15 ft to 16.5 ft	Same as above, without gravel, becomes gray	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				

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Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: Piezometer P-1
Location: Near former Trench #7 in landfill area
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: Ashley Yamaura
First Encountered Water: ~7.5 ft
Total Depth: 10.0 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
1.5-3 ft	No recovery, parking lot gravel 0-3"	10-8-8	-	-	-
3.0-4.5 ft	Silty sand with gravel, brown, loose, moist	6-5-5	0.7	NS	
4.5-6.0 ft	Silty sand with gravel, brown, loose, moist	5-5-5	0.6	NS	
6.0-7.5 ft	Silty gravelly sand, brown, loose, moist	4-3-3	0.4	NS	
7.5-9.0 ft	Silty sand with gravel, gray, loose, wet (poor recovery - large rock in shoe)	5-4-4		NS	
9.0-10.0 ft	Silty sand with gravel, gray, loose, wet	4-3-3		NS	
	Note: Abundant debris in drill cuttings, including large metal chain links, brick fragments, and black chunks of ore/slag.				
	Soil Sample Collection Depth (Composite sample over entire boring depth)				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-1-21
Location: In between the west side of the WWTP and the trail.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field screened by: Ashley Yamaura (WES)
First Encountered Water: ~7.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Thin sod layer				
1.5 - 7.5 ft	Brown fine to medium silty sand with occasional gravel,	2.5-5 ft	-	-	
	loose, moist (fill)	5-7.5 ft	3.3	NS	
7.5 - 10.5 ft	Brown fine to medium silty sand with occasional gravel,	7.5-10 ft	0.1	NS	
	medium dense, wet				
10.5 - 12.5 ft	Brown fine to medium silty sand with occasional gravel and	10-12.5 ft	0.1	NS	
	trace shells, medium dense, wet				
12.5 - 18 ft	Gray fine to medium sand with gravel and trace shells, loose,	12.5-15 ft	0.1	NS	
	wet (beach deposits)	15-17.5 ft	0.0	NS	
18 - 20 ft	Gray fine to medium silty sand with gravel and trace shells,	17.5-20 ft	0.0	NS	
	loose, wet (beach deposits)				
20 - 25 ft	Gray clay with occasional gravel, soft, wet (glaciomarine	20-25 ft	0.0	NS	
	drift)				
25 - 30 ft	Gray plastic clay with occasional gravel, stiff, wet	25-26.5 ft	0.0	NS	
30 - 31.5 ft	Gray plastic clay with occasional gravel, medium stiff, wet	26.5-30 ft	0.0	NS	
	Note: Screening depth of 2.5-5 ft had no recovery.				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-2-21
Location: North of the Administration building in the parking lot.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	4 inches of asphalt concrete pavement				
1.5 - 8.5 ft	Brown fine to medium silty sand with gravel and trace clay,	2.5-5 ft	-	-	
	medium dense, moist (fill)	5-7.5 ft	1.1	NS	5-7.5 ft
		7.5-10 ft	0.4	NS	
8.5 - 12.5 ft	Brown silty fine to medium sand with occasional gravel and	10-12.5 ft	0.3	NS	
	trace clay, medium dense, moist				
12.5 - 14.5 ft	Gray silty sand with gravel and trace clay and shells, medium	12.5-15ft	0.0	NS	
	dense, wet (beach deposits)				
14.5 - 17 ft	Gray fine to coarse sand with gravel and trace silty, loose,	15-17.5 ft	0.0	NS	
	wet				
17 - 20 ft	Gray silty fine to medium sand with occasional gravel, loose,	17.5-20 ft	0.2	NS	
	wet				
20 - 26.5 ft	Gray clay with occasional gravel, stiff, wet (glaciomarine	20-25 ft	0.0	NS	
	drift)				
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-3-21
Location: In the SE corner of the parking area in between the Solids Handling Facility and the Administration building.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5 ft
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~ 4 inches of asphalt concrete pavement				
1.5 - 4.5 ft	Brown silty sand with occasional gravel, medium dense, moist (fill)	2.5-5 ft	0.2	NS	
4.5 - 7.5 ft	Gray silty sand with occasional gravel, medium dense, moist	5-7.5 ft	0.8	NS	
7.5 - 10 ft	Gray silty sand with occasional gravel and decomposed piece ofwood, medium dense, moist)	7.5-10 ft	2.5	NS	7.5-10 ft
10 - 12.5 ft	Gray medium to coarse silty sand with gravel and shells, loose, moist (beach deposits)	10-12.5 ft	0.4	NS	
12.5 - 15 ft	Gray medium to coarse silty sand with gravel, loose, moist	12.5-15 ft	0.2	NS	
15 - 18 ft	Gray gravel with shells and occasional sand, loose, moist	15-17.5 ft	0.2	NS	
18 - 26.5 ft	Gray clay with silt and occasional gravel, medium stiff, wet (glaciomarine drift)	17.5-20 ft 20-25 ft	0.0 0.0	NS NS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-4-21
Location: On the east side of the WWTP between the fence and the trail.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
0 - 7 ft	Brown silty sand with gravel and occasional cobbles, very dense, moist (fill)	2.5-5 ft	4.3	NS	
		5-7.5 ft	3.4	NS	
7 - 15.5 ft	Gray/brown silty fine to medium sand with gravel and occasional cobbles, very dense, moist (glacially consolidated soils)	7.5-10 ft	1.2	NS	
		10-12.5 ft	-	-	
		12.5-15 ft	0.3	NS	
15.5 - 16.5 ft	Gray/brown silty fine to medium sand and occasional gravel and cobbles, very dense, moist (glacially consolidated soils)	15-17.5 ft	0.2	NS	
16.5 - 30 ft	Gray fine to medium silty sand with occasional gravel, medium dense, wet	17.5-20 ft	0.2	NS	
		20-25 ft	0.2	NS	
		25-30 ft	0.2	NS	
30 - 31.5 ft	Gray fine to medium silty sand with occasional gravel, very dense, wet	30-31.5	0.3	NS	

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-5-21
Location: To the west of the maintenance shop.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES)
First Encountered Water: ~10 ft
Total Depth: 21.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
0 - 7.5 ft	Brown silty sand with gravel, very dense, moist (fill)	0.2-5 ft	0.8	NS	
		5-7.5 ft	0.8	NS	
7.5 - 10.5 ft	Brown silty fine to medium sand with gravel, very dense,	7.5-10 ft	0.3	NS	
	moist (glacially consolidated soils)				
10.5 - 21.5 ft	Brown silty fine to medium sand with gravel, very dense,	10-12.5 ft	1.4	NS	
	wet (glacially consolidated soils)	12.5-15 ft	0.3	NS	
		15-17.5 ft	0.5	NS	
		17.5-20 ft	0.3	NS	
		20-21.5 ft	0.3	NS	

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-6-21
Location: To the south of the maintenance shop.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES)
First Encountered Water: ~15 ft
Total Depth: 21.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~ 4 inches of concrete/gravel				
1.5 - 9.5 ft	Brown silty clay, stiff, moist (glaciomarine drift)	2.5-5 ft	0.1	NS	
		5-7.5 ft	0.1	NS	
		7.5-10 ft	0.1	NS	
9.5 - 21.5 ft	Gray/brown silty sand with gravel, very dense, moist	10-11 ft	0.1	VSS	
	(glacially consolidated soils)	11-12.5 ft	0.1	VSS	
		12.5-15 ft	0.1	VSS	
		15-17.5 ft	0.3	NS	
		17.5-20 ft	0.3	VSS	
		20-21.5 ft	0.3	VSS	

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APPENDIX D

Test Pit Logs

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 1	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-6 ft: Sandy gravel, brown, loose (pit run gravel) - Gravel size decreases at ~4 ft bgs		
▼		W	Wet below 4 feet. Water sample collected. Oily sheen observed on water in trench.		
5		S	Soil sample collected at 6 ft bgs. Sandy gravel, brown, loose, wet (pit run gravel)	MS	0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #1

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West of former tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 2	Depth to Water:	5.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Crushed rock and pit run gravel fill		
	Brick Fill		1-5 ft: Brick fill with layers of black asphalt like substance intermixed (sample collected).		
2.5	Sludge Fill	S	Fine sand, black (asphalt-like), soft, moist	HS	0
	Glass Fill		1 foot layer of broken glass encountered at ~4 ft		
5 ▼	GM		Water entering trench from east at ~5.5 ft - West end of trench was dry to ~10 ft Silty sandy gravel, brown, loose, wet		
7.5			Transition zone not well defined due to excessive water in trench		
10	ML	S	Fine sand, greenish gray, firm, wet	VSS	0
12.5			Total trench depth 11 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #2

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 3	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel)		
			Minor brick fill encountered within 1 to 3 ft bgs		
2.5		S	3-4.5 ft: Medium-Coarse sand w/ gravel, black, loose, wet	NS	0
▼			Water encountered at ~4 ft bgs in south end of trench. Heavy Sheen noted on water.		
5	ML	S	4.5-6.5 ft: Silty fine sand, brown, firm, wet	HS	32
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #3

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	NW corner of property, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 4	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1.5 ft: Sandy gravel, brown, loose (pit run gravel)		
2.5	GC		1.5-4 ft: Silty gravel, brown, loose, moist		
▼	Brick Fill w/ black staining	S W	Clayey silt w/ moderate gravel, brown, sticky, wet Collected water sample. Slight Sheen noted.	VSS	0
5			4-6 ft: Brick fill encountered on east sidewall. No brick observed on west sidewall.		
	GC	S	6-7 ft: Silty gravel, black, abundant organics, sticky, wet	SS	0
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #4

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	South of tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 5	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Surficial steel reinforced concrete slab		
	GP		0.67-3.5 ft: Sandy gravel, brown, loose (pit run gravel)	VSS	
2.5	Brick Fill w/ black staining, metal debris, & organics		Encountered brick fill at ~ 4 ft bgs at east end of trench and ~ 1.5 ft bgs on the west		
	Brick Fill w/ black staining, metal debris, & organics		Water observed to enter trench at ~5 ft, but stablized at ~6 ft bgs*		
5 ▼	Brick Fill w/ black staining, metal debris, & organics	S	Sandy silt w/ moderate gravel and abundant organics, black, plastic, wet	NS	0
	Brick Fill w/ black staining, metal debris, & organics		Transition zone not well defined due to excessive water in trench		
7.5	GC		7-8.5 ft: Silty fine sand, gray, firm, wet		
			Total trench depth 8.5 ft bgs.		
10			* Trench water observed w/ Heavy Sheen and free floating black oil globules		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #5

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 5, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 6	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3.5 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, metal debris, & organics	S	Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end Medium to coarse sand sized metal fragmants, black, loose, dry	NS	0
5 ▼			Transition zone not well defined due to excessive water in trench		
7.5	GC	S	6-8.5 ft: Fine sand w/organics, greenish gray, firm, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #6

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 6, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 7	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, ash, metal debris, & organic material		Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end and encountered at lower depths Large chain links encountered in fill material		
5			Water encountered at ~5 ft bgs at east end, and 6.5 ft bgs at west end of trench*		
		S	Medium to coarse sand sized metal fragmants, black, loose, dry	MS	0
	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - was encountered below 6' depth on west end of trench		
7.5			Attempted to dig trench deeper but excessive water and sloughing sidewalls prevented further excavation.		
10			* Moderate sheen observed on water surface at east end of trench		
12.5			Total trench depth approximately 6.5 to 7 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #7

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of former forge building
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 8	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.5 ft: Sandy gravel, brown, loose (pit run gravel)		
	Black metal shavings, metal pieces, and other debris		0.5-1.2 ft: Steel reinforced concrete slab 1.2-4 ft: Miscellaneous fill materials		
2.5					
	Red Bricks		4-5 ft: layer of red brick fill material	NS	
5	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - depth approximate		
			Water encountered at ~7 ft bgs		
7.5	OH	S	6.5-8.5 ft: Silty fine sand w/ abundant organics, brown, sticky, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #8

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	N. end of boat storage area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 9	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GM		0-2 ft: Gravely silty clay material encountered above fill.		
2.5	CDF or concrete		3 ft: White colored rotten concrete or CDF		
▼	Black metal pieces, and organic debris	S	4 ft: Medium sand w/ gravel, abundant organics, black, hard, dry - Fill debris - Slucied material left sand sized metal fragments	NS	0
5					
	GC		7 ft: Clayey silt w/ gravel, gray, hard, dry		
7.5			Water encountered at depth but filled trench to 4 ft as seen in photo Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #9

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 10	Depth to Water:	3 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist	HS	514
2.5 ▼			2-9 ft: (depth approximate) Trash fill material - Trash includes: bottles, metal, wood, fiber glass Water encountered at 3 ft bgs with Heavy Sheen		
5					
7.5		S	7 ft: Silty gravel, brown, loose, wet	MS	13
	OL		Peat encountered at ~9 ft bgs		
10			Total trench depth 9.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #10

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 11	Depth to Water:	4.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2.5 ft: Coarse sandy gravel, brown, loose, moist		
2.5	Black staining, metal pieces, and debris		2.5-5 ft: Black stained layer, metal debris, and other miscellaneous fill material		
▼			Water encountered at approximately 4.5 ft bgs		
5	SM				
7.5		S	5-8 ft: Silty sand w/ gravel, gray, loose, moist	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #11

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SE corner of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 12	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM	S	1-2.5 ft: Silty coarse sand w/ gravel, brown, loose, moist	VSS	0
2.5					
	ML		2.5-10 ft: Clayey silt, tan, firm, dry (native diamicton)		
5					
			No water encountered in trench		
7.5					
10			Total trench depth 10 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #12

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Eastern edge of fenced western area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 13	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM		1-2.5 ft: Silty coarse sand w/gravel, brown, loose, moist to dry		
2.5	ML		2.5-6 ft: Silty fine sand w/ gravel, tan, hard, dry (native diamicton)		
5			No water encountered in trench No samples collected from trench		
7.5			Total trench depth 6 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #13

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW of gate in western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 14	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
0	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist - fill material - charred wood observed in sample collected from ~1 ft bgs	VSS	0
2.5	GM		2-7.5 ft: Silty fine sand w/ gravel, brown to olive brown, firm, dry (native diamicton) No water encountered in trench		
5					
7.5			Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #14

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 15	Depth to Water:	6 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: coarse sandy gravel, brown, loose, moist (fill material)		
5					
	Red Bricks		5.5-6.5 ft: Red brick fill material Water entering trench at brick fill		
7.5	GC	S	6.5-8.5 ft: Fine sand, gray, firm, wet	VSS	0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #15

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SE of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 16	Depth to Water:	approx. 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	Red Bricks		0-1 ft: Steel reinforced concrete slab - Encountered conduit pipes and old water lines just above the brick fill 1-2 ft: Red brick fill material		
2.5	GP		2-4 ft: Coarse sandy gravel fill material		
5	ML		4-8 ft: Native material. Silty fine sand and Sandy silts, brown, firm, wet at depth	NS	0
7.5			Water encountered at depth in trench - No sheen observed on water Did not collect sample from trench	NS	
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #16

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	East of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 17	Depth to Water:	6 to 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.8 ft: Steel reinforced concrete slab		
	Bricks		0.8-3.5 ft: Mixture of brick and discolored fill material		
2.5	Black stained soil and debris				
			3.5-7.5 ft: Coarse sandy gravel fill material, brown, loose, moist to wet		
5	GP		Water entered trench at ~7 ft bgs and leveled out at ~6 ft.		
			Old 1.5 ft diameter pipe encountered at ~7 ft bgs.		
			- Water entered from old pipe		
7.5			- Pipe removed from ground		
	ML		7.5-8 ft: Silty fine sand, brown, firm, wet		
			- No sheen observed on water in trench		
10			- No sample collected from trench		
			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #17

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	12' east of Trench 10
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 18	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2 ft: Coarse sandy gravel fill material		
2.5			2-5.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets Water encountered at 4 ft bgs with Heavy Sheen	HS	
5			Voids were observed in the fill material		
			No samples collected. Trench was excavated to characterize the extent of contamination near Trench 10.		
7.5			Total trench depth 5.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #18

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~20' east of Trench 18
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 19	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: Coarse sandy gravel fill material		
5		W	Water encountered at ~5 ft bgs with Heavy Sheen - Water sample collected 5.5-6.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets		
7.5			No soil samples collected. Trench was excavated to characterize the extent of contamination near Trench 10. Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #19

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of property, east of John's Repair
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 20	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.5 ft: Concrete slab		
2.5	GM		0.5-8.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Area investigated near concrete filled pipe north of UST location. No indication of tank near filled pipe.		0
7.5			- Dry material to depth of trench.		
			- No sample collected. No PID readings.		0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #20

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~40' south of concrete loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 21	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
			- No sample collected. No PID readings.		
7.5			Total trench depth 7.5 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #21

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 22	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
7.5			- No sample collected. No PID readings. Total trench depth 7 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #22

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 23	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	- Collected surface sample (0-1 ft) 0-1 ft: Silty sand w/ gravel, dark brown, loose, dry	VSS	0
5	ML		1-7.5 ft: Fine sandy silt, minor gravel, brown, firm, dry - Lenses of moist gray fine sands to sandy silts encountered at ~5' bgs on west side of trench		
7.5			- No water encountered in trench - Dry material to depth of trench. Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #23

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW edge of dug out slope on SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 24	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-4 ft: Silty sand w/ minor gravel, brown, firm dry (native diamicton)		
5	ML		4-7 ft: Fine sandy silt, brown, hard, dry (native diamicton) - Digging dificult in unit - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #24

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of dug out slope in SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 25	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		- Surficial puddles due to recent rainfall 0-4 ft: Silty sand w/ gravel, brown, firm, dry - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings. Total trench depth 4 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #25

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West end of surface drainage ditch, SE of IOTA
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 26	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	- Collected surficial sample of sand blast grit 0-1 ft: Sandy gravel, brown, loose, moist	VSS	0
2.5	ML		1-4 ft: Clayey silt, brown, hard, dry		0
5	CL		4-8 ft: Silty clay, gray, hard, dry		0
7.5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #26

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Center of the east edge of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 27	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		- Very slight sheen observed in surficial gravel 0-1.5 ft: Surficial gravel, brown, loose, dry	VSS	0
2.5	ML		1.5-6.5 ft: Fine sandy silt w/ minor gravel, brown, firm to hard, dry		0
5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #27

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	100' south of northern property edge, east side
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 28	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.25 ft: Asphalt 0.25-2.5 ft: Pit run gravel, crushed rock (fill material)		
2.5	ML		2.5-8 ft: Sandy silt, brown w/ minor gravel, brown, firm to hard, dry to moist at depth - Lenses of moist gray silts encountered deeper in trench - Moisture content at depth - No water encountered in trench - No sample collected. Total trench depth 8 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #28

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near NE corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 29	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Pit run gravel fill material at surface		
			0.67-6 ft: Clayey silt w/ gravel, gray, firm, moist		
2.5	OL	S	- Sample collected. Clayey silt w/ gravel and heavy organics, gray, firm, moist to wet	SS	0
			- Material appears to be reworked diamicton		
5			- Water encountered at ~7' bgs. Material was moist to wet from surface to depth.		
			- Transition area difficult to discern		
▼ 7.5	OH	S	6-12 ft: Large woody debris and peat layers encountered in reworked diamicton that was gray, plastic, and wet. Abundant organics observed below 6' depth.	VSS	0
			- Collected sample ~8' bgs. Silty fine sand w/ abundant organics, brown, plastic, wet		
10			- Walls of trench calved often due to moisture content of material.		
12.5			Total trench depth 12 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #29

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Below west end of removed loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 30	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	0-8 ft: Silty fine sand w/ moderate gravel, brown, firm, dry - Sample collected at 1' to characterize soil below demolished concrete loading ramp - Dry material to depth of trench. - No water encountered in trench	VSS	0
5					
7.5					
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #30

Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-1-20
Location: SW of the eastern building
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~3 inches crushed rock					
0.25 to 0.5 ft	Buried Asphalt layer					
0.5 to 6.0 ft	Clayey sandy gravelly silt, brown, hard, dry					
	Various sizes of cobbles from 1.5 to 5 ft bgs	As - 5	1 ft	1.6	VSS	
		As - 9	2 ft	1.3	VSS	
	Charcoal bits noted at 3 ft bgs	As - 5	3 ft	1.0	VSS	
		As - 8	4 ft	0.9	NS	
		As - 5	5 ft	1.7	VSS	5 ft
		As - ND	6 ft	1.8	NS	
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-2-20
Location: North-center of property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches asphalt					
0.17 to 0.33 ft	Sandy gravel, brown, firm, dry					
		As - 6	1 ft	9.0	VSS	
0.33 to 2.0 ft	Gravelly sandy silt with cobbles, woody and metal debris, gray, hard, moist	As - 5	2 ft	1.7	VSS	
2.0 to 4.0 ft	Gravelly sandy silt with cobbles, brown, hard, dry					
		As -ND	3 ft	1.7	VSS	
4.0 to 5.0 ft	Gravelly sandy silt with cobbles, gray, hard, dry	As - ND	4 ft	1.5	SS	
		As - ND	5 ft	1.8	SS	5 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-3-20
Location: SE corner of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of grass and top soil					
		As - ND	0.5 ft	1.1	VSS*	
0.25 to 2.5 ft	Silty gravelly medium sand, brown, firm, moist.					
		As - ND	1 ft	1.1	VSS*	
2.5 to 6.0 ft	Gravelly sandy silt, brown, hard, dry.					
		As - ND	2 ft	1.1	VSS*	
		As - ND	3 ft	1.1	VSS*	
	Cobbles at 4 ft bgs - not plentiful	As - ND	4 ft	1.0	VSS	
		As - 4	5 ft	1.3	SS	5 ft
		As - ND	6 ft	1.0	VSS	
	Soil Sample Collection Depth					
	* - indicates a weathered sheen					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-4-20
Location: Approximate center of SE quardrant of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of grass and top soil					
		As - ND	0.5 ft	1.3	SS*	
0.25 to 1.75 ft	Sandy gravel, dark gray, firm, moist					
	Charcoal and rebar noted in upper 1.75 ft.	As - ND	1 ft	0.8	VSS*	
	Geotextile fabric noted at 1.75 ft. bgs					
		As - ND	2 ft	1.4	VSS	
1.75 to 6.0 ft	Gravelly silty medium to fine sand, brown, hard,					
	moist. Moisture content increased at 5 ft.	As - ND	3 ft	1.3	VSS	
	Observed old surface layer grass below filter fabric					
	from 1.75 to 2.0 ft. bgs	As - 11	4 ft	1.4	VSS	
		As - 5	5 ft	1.3	SS	5 ft
		As - 4	6 ft	0.6	VSS	
	Soil Sample Collection Depth					
	* - indicates a weathered sheen					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-5-20
Location: Approximately center on East side of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water:
Total Depth: 5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3-in. of Grass and top soil					
		As - ND	"@ 0.5 ft			
0.25 to 0.75 ft	Sandy organic silt, dark brown, soft, moist.					
		As - ND	@ 1 ft	0.1	VSS	
1.75 to 5.0 ft	Sandy gravelly silt, brown, hard, dry					
	- changes to gray at 5 ft. bgs	As - ND	@ 2 ft	1.0	NS	
	- cobbles encountered 3.5 to 4 ft. bgs					
		As - ND	@ 3 ft	0.9	VSS	
		As - 4	@ 4 ft	0.9	VSS	
		As - 3	@ 5 ft	0.8	VSS	5 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-6-20
Location: In the alleyway west of the eastern building, north of TP-1
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 4.75 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	10 inches asphalt					
	Hard getting through asphalt; excavated to approximately 2 ft bgs before a large enough hole had been excavated to retrieve samples without asphalt residual material.					
~1.0 to 4.75 ft	Sandy gravelly clayey silt, brown, hard, moist.					
		As - ND	3 ft	1.6	NS	
		As - ND	4 ft	0.8	VSS	
	Could not get deeper than 4.75 ft due to thick asphalt getting in the way of the excavator bucket's motion	As - ND	4.75 ft	1.1	VSS	4.75 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-7-20
Location: On the north side of the SW quadrant of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: 4.5 ft.
Total Depth: ~5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~4 inches of crushed rock on geotextile fabric					
0.33 to ~1.0 ft	Sandy gravel, brown, hard, moist. (gravel from old boatyard)	As - ND	1 ft	1.1	VSS	
~1.0 to 1.5 ft	Gravelly sandy silt, brown, firm, moist.					
1.5 to ~5.0 ft	Fill material consisting of: Rusty colored sandy gravel Black sandy metal shavings (sand blast grit) and paint flakes, tan refractory brick chunks, metal rods, springs, metal shavings, and thick steel plate debris.	As - ND	2 ft	1.7	SS	2 ft
		As - ND	3 ft	1.7	SS	
	Water started entering the excavation at ~4.5 ft bgs and settled at ~4.2 ft after ~10 minutes.	As - 17	4.5 ft	1.1	VSS	
	Soil Sample Collection Depth					

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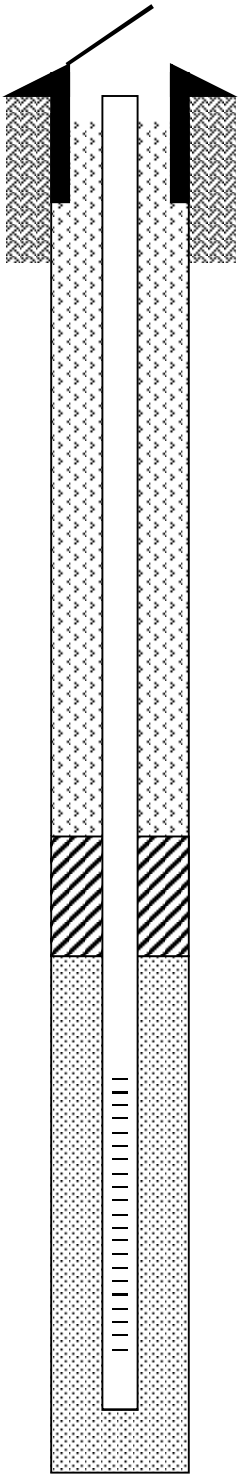
APPENDIX E

Well Construction Diagrams

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

15.0'

15.25'

15.25'

Not to Scale

Elevations (feet): Top of Casing: 17.12'
Mean Sea Level (MSL) Ground Elevation: 17.68'

Coordinates: 631518.23 E 1234796.67 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.71'	15.41'	6.70	0.625

Comments:

Project: 210 McKenzie Ave.

Location: NW corner of Property

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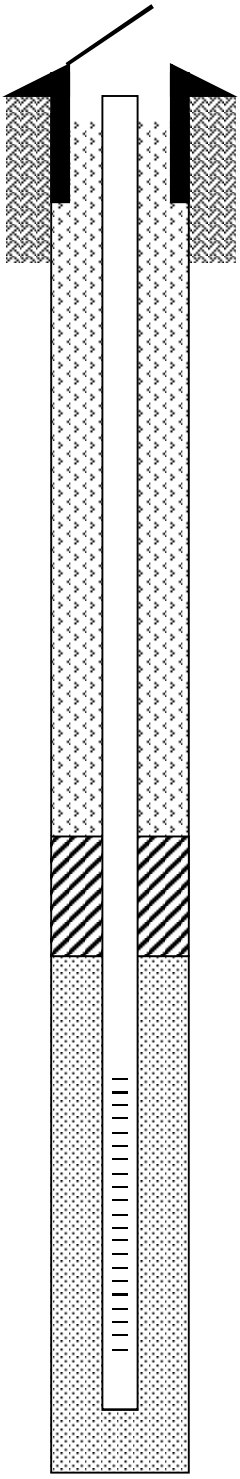
MW - 1 APQ984

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Not to Scale

Elevations (feet): Top of Casing: 16.85'
Mean Sea Level (MSL) Ground Elevation: 17.42'

Coordinates: 631435.28 E 1234795.47 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.39'	15.46'	8.91	0.512

Comments: Globules of black oil observed in cuttings and on water emenating from boring during drilling of well. Sheen observed on purge water in bucket when well was developed.

Project: 210 McKenzie Ave.

Location: Center of western fence line

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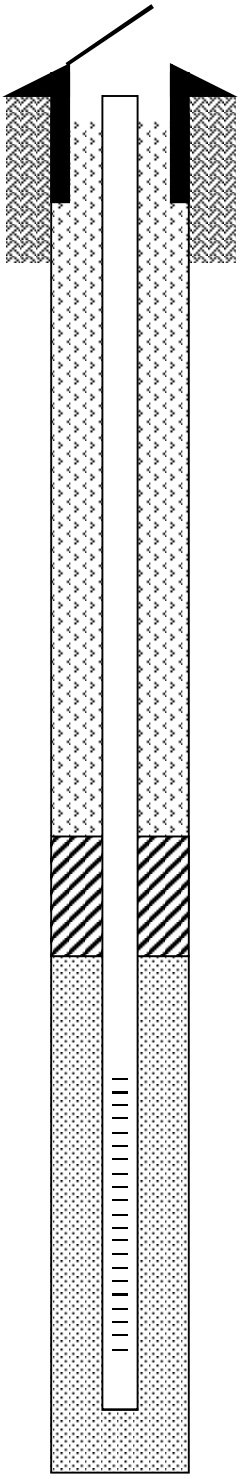
210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.67'

15.0'

15.5'

Not to Scale

Elevations (feet): Top of Casing: 15.74'
Mean Sea Level (MSL) Ground Elevation: 16.16'

Coordinates: 631303.92 E 1234794.26 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	0.45'	15.29'	9.02	0.449

Comments:

Project: 210 McKenzie Ave.

Location: SW corner of property

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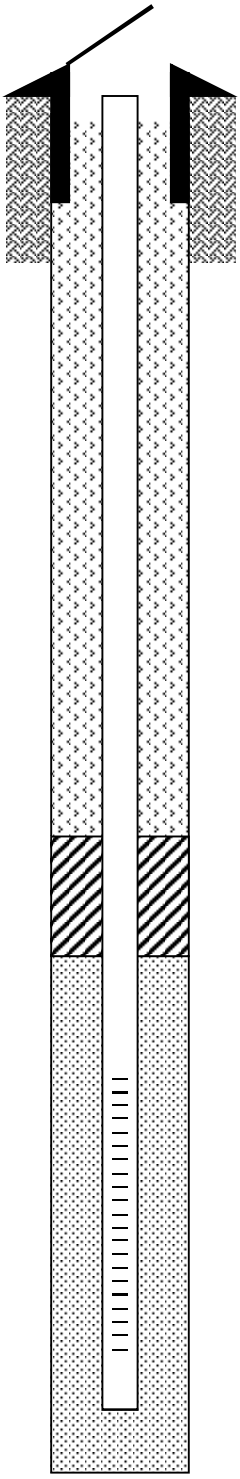
MW - 3 APQ986

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.75'

14.75'

15.0'

Not to Scale

Elevations (feet): Top of Casing: N/A
Mean Sea Level (MSL) Ground Elevation: N/A

Coordinates: N/A N/A

Coordinate System: N/A

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	N/A	N/A	N/A	N/A

Comments:

Project: 210 McKenzie Ave.

Location: In concrete slab of old forge building

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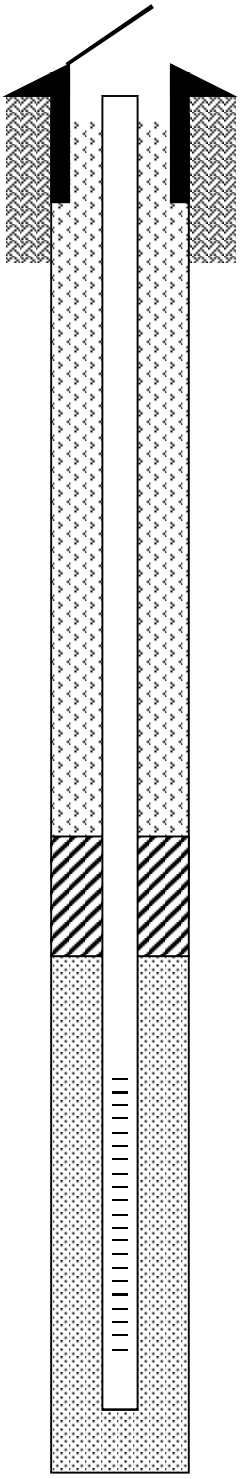
MW - 4 APQ987

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.58'

15.0'

15.5'

Not to Scale

Elevations (feet): Top of Casing: N/A
Mean Sea Level (MSL) Ground Elevation: N/A

Coordinates: N/A N/A

Coordinate System: N/A

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/25/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	N/A	N/A	N/A	N/A

Comments: Bailed dry after 5 gallons when well was developed.

Project: 210 McKenzie Ave.

Location: Center of south side of property

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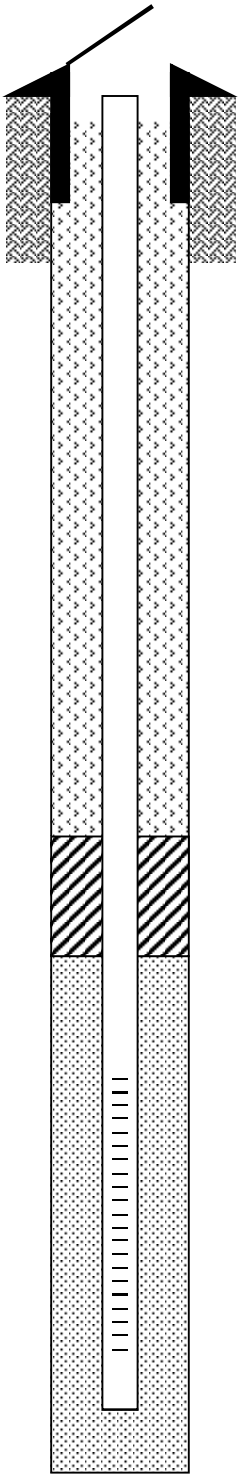
MW - 5 APQ988

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Not to Scale

Elevations (feet): Top of Casing: 19.40'
Mean Sea Level (MSL) Ground Elevation: 19.98'

Coordinates: 631534.58 E 1235215.82 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	0.79'	18.61'	6.14	0.176

Comments: Bailed dry after 15 gallons when well was developed.

Project: 210 McKenzie Ave.

Location: NE corner of property

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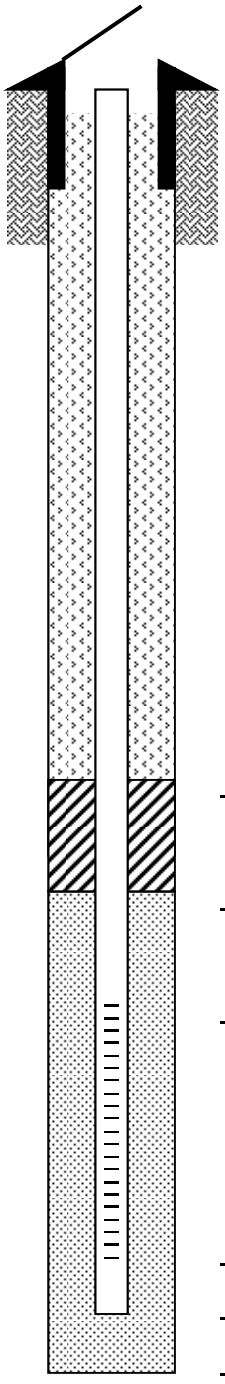
MW - 6 APQ989

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

2.58'

4.67'

7.58'

17.58'

18.0'

19.0'

Not to Scale

Elevations (feet): Top of Casing: 17.69'
Mean Sea Level (MSL) Ground Elevation: 17.94'

Coordinates: 631556.98 E 1234743.12 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.26'	8.43'	8.00	0.66

Comments:

Project: 210 McKenzie Additional Wells

Location: Post Point parking lot entrance

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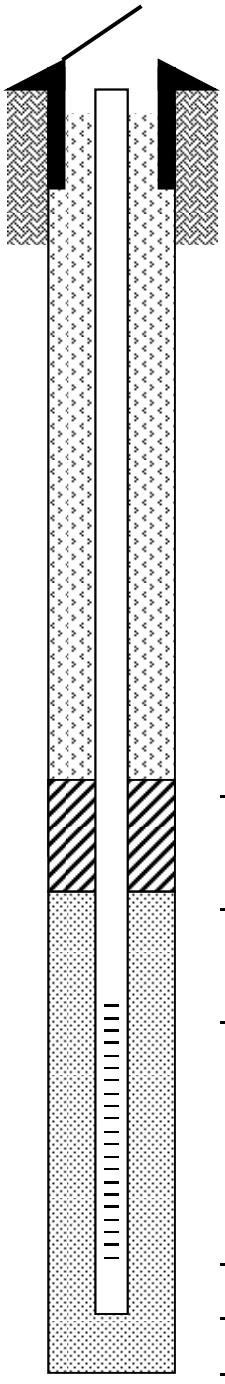
MW-7

Ecology Well ID: **BBA-940**

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4.83'

14.83'

15.33'

15.33'

Not to Scale

Elevations (feet): Top of Casing: 17.55'
Mean Sea Level (MSL) Ground Elevation: 17.84'

Coordinates: 631524.80 E 1234758.38 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	2.11'	15.44'	6.50	0.364

Comments:

Project: 210 McKenzie Additional Wells

Location: West of MW-1

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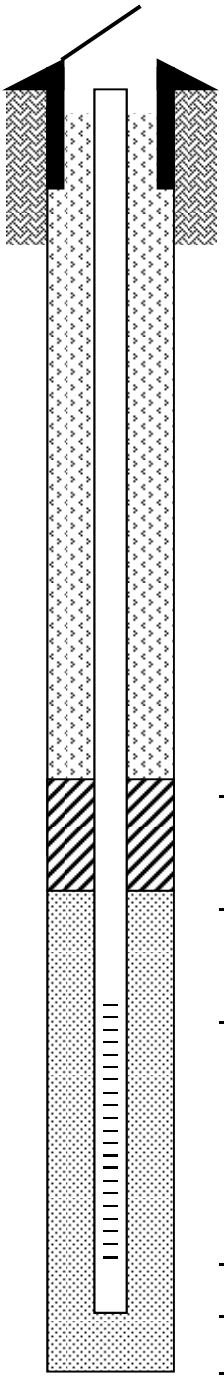
MW-8

Ecology Well ID: **BBA-941**

Well Design Specifications



Depths in Feet Below Ground Surface

0.83'

1.83'

4.83'

15.17'

15.17'

15.17'

Not to Scale

Elevations (feet): Top of Casing: 17.01'
Mean Sea Level (MSL) Ground Elevation: 17.35'

Coordinates: 631462.71 E 1234758.44 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.57'	15.44'	8.75	0.343

Comments:

Project: 210 McKenzie Additional Wells

Location: Northwest of MW-2

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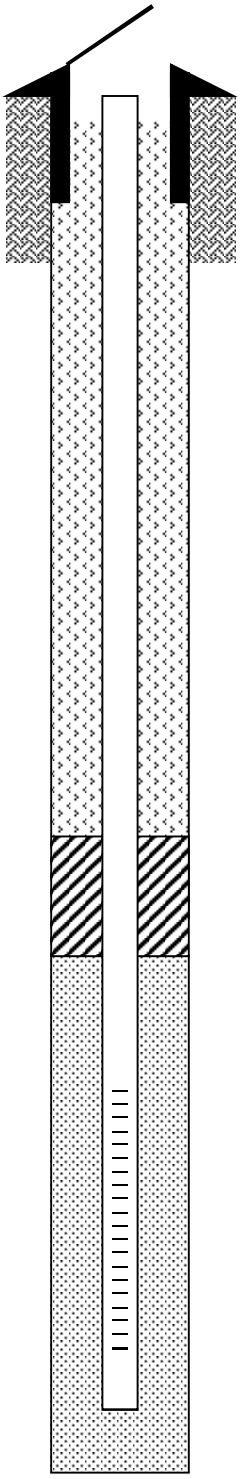
MW-9

Ecology Well ID: **BBA-942**

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

3.0'

5'2"

15'2"

15'6"

15'6"

Elevations (feet): Top of Casing: ~~19.41'~~ 17.56'
Mean Sea Level (MSL) Ground Elevation: 17.91'

Coordinates: 631605.69 E 1234720.42 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.96'	7.60	6.12	0.342

Comments:

Project: 210 McKenzie Ave. Add Wells

Location: NW corner of Property

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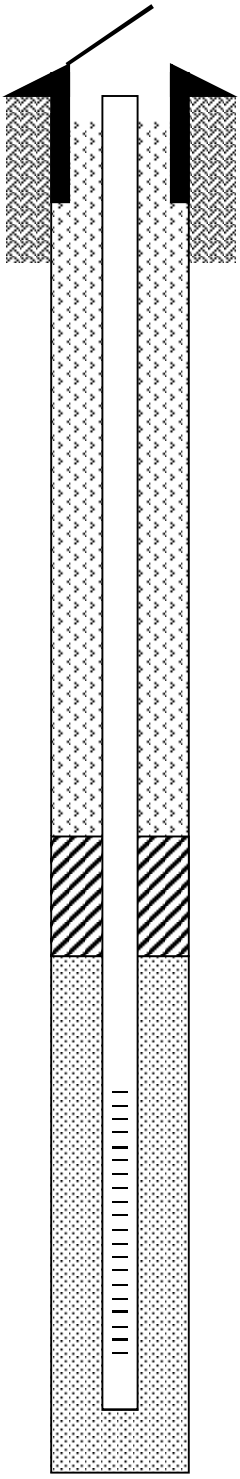
MW - 10 BCB-744

210 McKenzie Avenue

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

4'7"

14'11"

14'11"

14'11"

Elevations (feet): Top of Casing: ~~19.18'~~ 17.34'
Mean Sea Level (MSL) Ground Elevation: 17.59'

Coordinates: 631537.43 E 1234699.13 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.17'	8.17'	6.70	0.69

Comments: Heaving sands set well higher than 15'

Project: 210 McKenzie Ave. Add Wells

Location: West of MW-8

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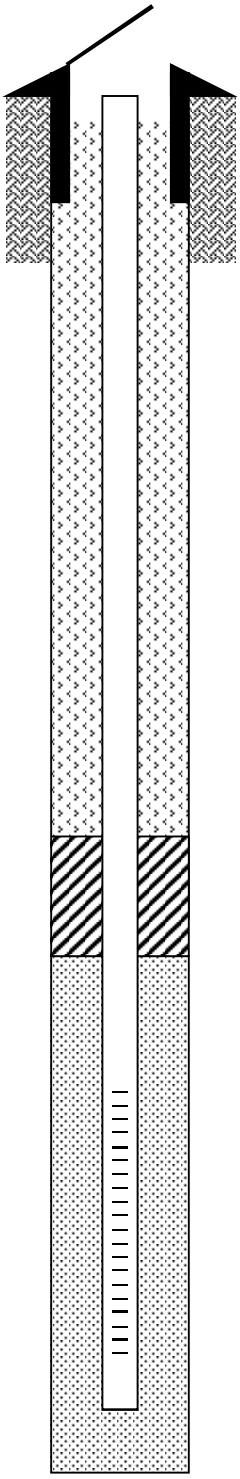
MW - 11 BCB-745

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4'8"

14'8"

15'

15'

Not to Scale

Elevations (feet): Top of Casing: ~~17.49'~~ 15.64'
Mean Sea Level (MSL) Ground Elevation: 16.28'

Coordinates: 631468.50 E 1234700.72 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	7.62'	8.02'	6.64	0.177

Comments:

Project: 210 McKenzie Ave. Add Wells

Location: Handicap parking spot by admin. building

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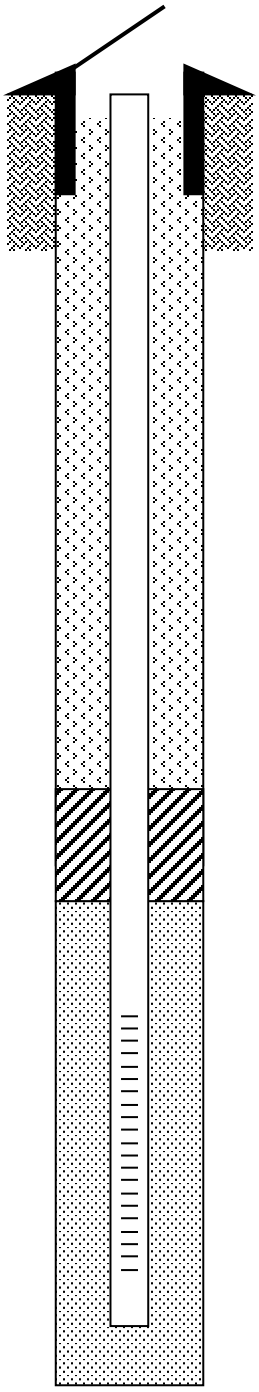
MW - 12 BCB-746

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

2'

4'

5'

14.5'

15'

15'

Not to Scale

Elevations (feet): Top of Casing: 22.12'
Mean Sea Level (MSL) Ground Elevation: 22.44'

Coordinates: 631359.62 E 1235073.07 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 2/12 Gillibrand

Bentonite Seal: Pure Gold Cetco

Grout Type: Medium Chip **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow-Stem

Drilled by: BoreTech

Logged by: Thom Davis WES

Completion Date: 10/28/2020

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.32	20.8	6.74	0.527

Comments:

Project: 210 McKenzie Ave

Location: Central portion of property

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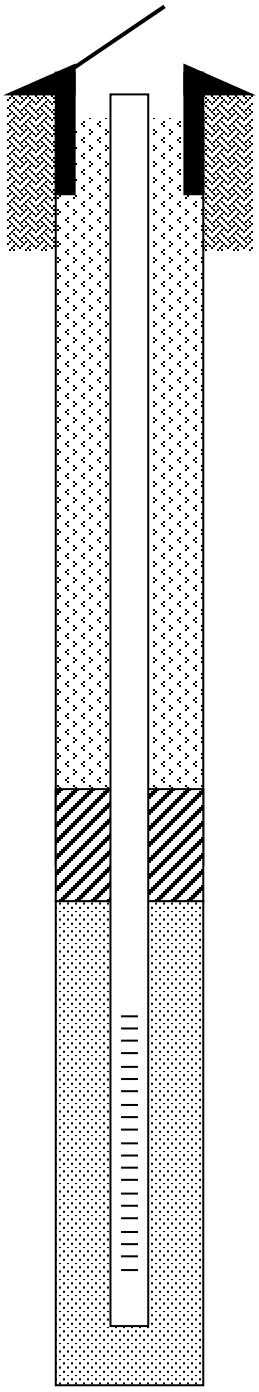
MW-13

Ecology Well ID:
BJI-142

Well Design Specifications



Depths in Feet Below Ground Surface

2'

4'

5'

14.5'

15'

15'

Not to Scale

Elevations (feet): Top of Casing: 19.71'
Mean Sea Level (MSL) Ground Elevation: 20.01'

Coordinates: 631547.35 E 1235095.09 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 2/12 Gillibrand

Bentonite Seal: Pure Gold Cetco

Grout Type: Medium Chip **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow Stem

Drilled by: Bore Tech

Logged by: Geo Engineers

Completion Date: 10/29/2020

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	3.6	16.11	7.64	0.311

Comments:

Project: 210 McKenzie Ave

Location: North edge of property

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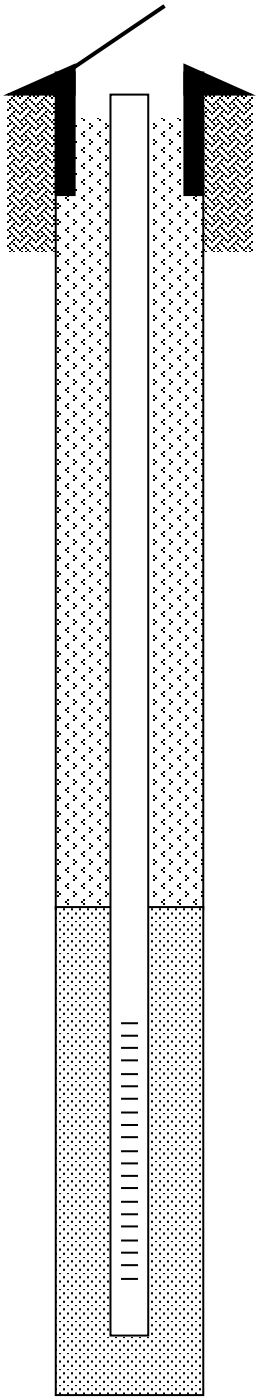
MW-14

Ecology Well ID:
BJI-143

Well Design Specifications



Depths in Feet Below Ground Surface

16"

2'

9'8"

10'

10'

Not to Scale

Elevations (feet): Top of Casing: Not Surveyed
Mean Sea Level (MSL) Ground Elevation: Not Surveyed

Coordinates: Not Surveyed

Coordinate System: Not Surveyed

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 12/20 Gillibrand

Bentonite Seal: None

Grout Type: Concrete **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow Stem EC-95

Drilled by: Bore Tech

Logged by: Harold Cashman

Completion Date: 7/8/2021

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
7/13/2021	5.31	--	--	--
7/21/2021	5.44	--	--	--

Comments: No LNAPL observed on 7/13/21, 7/21/21, or 9/23/21.

Project: 210 McKenzie Ave

Location: Landfill Area

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Piezometer P-1

Ecology Well ID:

APPENDIX F

2020/2021 Soil Laboratory Analytical Data Reports

November 13, 2020

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

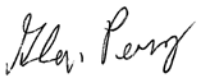
On October 30th, 21 samples were received by our laboratory and assigned our laboratory project number EV20100187. The project was identified as your Brown & Caldwell Ph. III - McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group



Glen Perry
Laboratory Manager

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:45:00 AM
CLIENT SAMPLE ID	B-9 7.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:45:00 AM
CLIENT SAMPLE ID	B-9 7.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:45:00 AM
CLIENT SAMPLE ID	B-9 7.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:45:00 AM
CLIENT SAMPLE ID	B-9 7.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.042**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**49**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.0**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**61**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.23**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**49**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**6.9**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:45:00 AM
CLIENT SAMPLE ID	B-9 7.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.2**	11/02/2020	KLS
C25	NWTPH-DX	**96.4**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**108**	11/02/2020	DLC
Toluene-d8	EPA-8260	**89.5**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**99.1**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**86.1**	11/05/2020	JMK
Phenol-d5	EPA-8270	**83.8**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**79.9**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**83.7**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**87.5**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**88.5**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:55:00 AM
CLIENT SAMPLE ID	B-9 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	250	10	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	**530**	500	10	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	**22**	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	**1200**	150	1	UG/KG	11/05/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:55:00 AM
CLIENT SAMPLE ID	B-9 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	110	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:55:00 AM
CLIENT SAMPLE ID	B-9 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	270	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	150	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	140	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	**1800**	1500	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	260	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	530	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	150	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1200	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	400	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	700	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	330	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	380	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1200	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	110	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	120	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	110	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:55:00 AM
CLIENT SAMPLE ID	B-9 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	270	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	370	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**110**	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.074**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**73**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.1**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**61**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**4.8**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**73**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**64**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	**1.6**	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	**0.17**	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**64.9**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 10:55:00 AM
CLIENT SAMPLE ID	B-9 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 10X Dilution	NWTPH-DX	U, S	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**106**	11/02/2020	DLC
1,2-Dichloroethane-d4	EPA-8260	**99.6**	11/05/2020	DLC
Toluene-d8	EPA-8260	**95.2**	11/02/2020	DLC
Toluene-d8	EPA-8260	**89.4**	11/05/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**93.5**	11/05/2020	DLC
2-Fluorophenol	EPA-8270	**89.6**	11/05/2020	JMK
Phenol-d5	EPA-8270	**90.3**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**84.9**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**86.5**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**101**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**85.8**	11/05/2020	JMK

S - Outside of control limits.
U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:00:00 PM
CLIENT SAMPLE ID	B-10 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:00:00 PM
CLIENT SAMPLE ID	B-10 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:00:00 PM
CLIENT SAMPLE ID	B-10 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:00:00 PM
CLIENT SAMPLE ID	B-10 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**430**	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.033**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**47**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.8**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**53**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.11**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**47**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.4**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.1**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:00:00 PM
CLIENT SAMPLE ID	B-10 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**92.5**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**114**	11/02/2020	DLC
Toluene-d8	EPA-8260	**91.6**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**94.9**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**104**	11/05/2020	JMK
Phenol-d5	EPA-8270	**108**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**86.4**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**81.8**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**100**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**79.4**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:10:00 PM
CLIENT SAMPLE ID	B-10 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:10:00 PM
CLIENT SAMPLE ID	B-10 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:10:00 PM
CLIENT SAMPLE ID	B-10 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:10:00 PM
CLIENT SAMPLE ID	B-10 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.031**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**39**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.2**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**40**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**39**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.1**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**82.2**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 12:10:00 PM
CLIENT SAMPLE ID	B-10 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**88.5**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/02/2020	DLC
Toluene-d8	EPA-8260	**88.1**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**98.6**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**83.4**	11/05/2020	JMK
Phenol-d5	EPA-8270	**83.1**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**78.8**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**82.3**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**85.3**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**88.0**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:30:00 PM
CLIENT SAMPLE ID	B-2 4ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:30:00 PM
CLIENT SAMPLE ID	B-2 4ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:30:00 PM
CLIENT SAMPLE ID	B-2 4ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
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CLIENT SAMPLE ID	B-2 4ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.089**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**47**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**5.3**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**63**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.16**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**47**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**3.4**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.4**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:30:00 PM
CLIENT SAMPLE ID	B-2 4ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**91.2**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**107**	11/02/2020	DLC
Toluene-d8	EPA-8260	**91.7**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**96.7**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**88.7**	10/30/2020	JMK
Phenol-d5	EPA-8270	**90.8**	10/30/2020	JMK
Nitrobenzene-d5	EPA-8270	**84.0**	10/30/2020	JMK
2-Fluorobiphenyl	EPA-8270	**88.2**	10/30/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**86.2**	10/30/2020	JMK
Terphenyl-d14	EPA-8270	**94.4**	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:40:00 PM
CLIENT SAMPLE ID	B-2 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:40:00 PM
CLIENT SAMPLE ID	B-2 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:40:00 PM
CLIENT SAMPLE ID	B-2 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:40:00 PM
CLIENT SAMPLE ID	B-2 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.033**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**49**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**2.7**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**55**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.15**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**49**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.7**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.0**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 1:40:00 PM
CLIENT SAMPLE ID	B-2 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**95.2**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**106**	11/02/2020	DLC
Toluene-d8	EPA-8260	**89.8**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**98.7**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**75.1**	10/30/2020	JMK
Phenol-d5	EPA-8270	**76.4**	10/30/2020	JMK
Nitrobenzene-d5	EPA-8270	**70.9**	10/30/2020	JMK
2-Fluorobiphenyl	EPA-8270	**71.9**	10/30/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**69.9**	10/30/2020	JMK
Terphenyl-d14	EPA-8270	**77.7**	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:10:00 PM
CLIENT SAMPLE ID	B-8 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/03/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:10:00 PM
CLIENT SAMPLE ID	B-8 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:10:00 PM
CLIENT SAMPLE ID	B-8 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:10:00 PM
CLIENT SAMPLE ID	B-8 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**220**	100	1	UG/KG	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.049**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**50**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**5.3**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**89**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**50**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**4.5**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	**0.12**	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.3**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:10:00 PM
CLIENT SAMPLE ID	B-8 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**88.8**	11/03/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/02/2020	DLC
Toluene-d8	EPA-8260	**90.5**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**97.1**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**86.8**	10/30/2020	JMK
Phenol-d5	EPA-8270	**89.4**	10/30/2020	JMK
Nitrobenzene-d5	EPA-8270	**81.7**	10/30/2020	JMK
2-Fluorobiphenyl	EPA-8270	**83.3**	10/30/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**78.5**	10/30/2020	JMK
Terphenyl-d14	EPA-8270	**86.6**	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:20:00 PM
CLIENT SAMPLE ID	B-8 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:20:00 PM
CLIENT SAMPLE ID	B-8 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
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CLIENT SAMPLE ID	B-8 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:20:00 PM
CLIENT SAMPLE ID	B-8 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**460**	100	1	UG/KG	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.033**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**41**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.3**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**73**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.11**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**41**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**3.5**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**103**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/27/2020 4:20:00 PM
CLIENT SAMPLE ID	B-8 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**91.2**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**104**	11/02/2020	DLC
Toluene-d8	EPA-8260	**85.6**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**97.7**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**78.0**	10/30/2020	JMK
Phenol-d5	EPA-8270	**78.2**	10/30/2020	JMK
Nitrobenzene-d5	EPA-8270	**77.8**	10/30/2020	JMK
2-Fluorobiphenyl	EPA-8270	**76.8**	10/30/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**66.3**	10/30/2020	JMK
Terphenyl-d14	EPA-8270	**83.7**	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:30:00 AM
CLIENT SAMPLE ID	B-1 28.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	11/04/2020	JNF
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/11/2020	JNF
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/11/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:30:00 AM
CLIENT SAMPLE ID	B-1 28.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:30:00 AM
CLIENT SAMPLE ID	B-1 28.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:30:00 AM
CLIENT SAMPLE ID	B-1 28.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Fluorene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/30/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/30/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.042**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**64**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.4**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**88**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.17**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**64**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**3.5**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:30:00 AM
CLIENT SAMPLE ID	B-1 28.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**96.1**	11/02/2020	KLS
C25	NWTPH-DX w/ SGA	**98.3**	11/04/2020	JNF
C25	NWTPH-DX	**91.4**	11/11/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**106**	11/02/2020	DLC
Toluene-d8	EPA-8260	**93.1**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**90.5**	10/30/2020	JMK
Phenol-d5	EPA-8270	**93.7**	10/30/2020	JMK
Nitrobenzene-d5	EPA-8270	**88.4**	10/30/2020	JMK
2-Fluorobiphenyl	EPA-8270	**90.5**	10/30/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**85.0**	10/30/2020	JMK
Terphenyl-d14	EPA-8270	**92.9**	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:40:00 AM
CLIENT SAMPLE ID	B-1 35.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX w/ SGA	U	25	1	MG/KG	11/04/2020	JNF
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/11/2020	JNF
TPH-Oil Range	NWTPH-DX w/ SGA	U	50	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/11/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:40:00 AM
CLIENT SAMPLE ID	B-1 35.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:40:00 AM
CLIENT SAMPLE ID	B-1 35.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:40:00 AM
CLIENT SAMPLE ID	B-1 35.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	**210**	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**310**	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/04/2020	RAL
Mercury	EPA-7471	**0.039**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**37**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.2**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**56**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.12**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**37**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.4**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 10:40:00 AM
CLIENT SAMPLE ID	B-1 35.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.6**	11/02/2020	KLS
C25	NWTPH-DX w/ SGA	**92.8**	11/04/2020	JNF
C25	NWTPH-DX	**96.5**	11/11/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**107**	11/02/2020	DLC
Toluene-d8	EPA-8260	**91.2**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**102**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**91.5**	10/31/2020	JMK
Phenol-d5	EPA-8270	**95.7**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**88.7**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**94.3**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**90.4**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**97.8**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	**7500**	500	20	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	**7700**	1000	20	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	**150**	52	1	UG/KG	11/05/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	**770**	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	**1800**	1000	10	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	290	10	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2200	10	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	330	10	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	410	10	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**2700**	1000	10	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	280	10	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	**110**	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.33**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**290**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**15**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**90**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**1.6**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**290**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**570**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	**1.2**	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**62.0**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 20X Dilution	NWTPH-DX	**108**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**107**	11/02/2020	DLC
1,2-Dichloroethane-d4	EPA-8260	**95.9**	11/05/2020	DLC
Toluene-d8	EPA-8260	**92.5**	11/02/2020	DLC
Toluene-d8	EPA-8260	**90.8**	11/05/2020	DLC
4-Bromofluorobenzene	EPA-8260	**111**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**98.0**	11/05/2020	DLC
2-Fluorophenol	EPA-8270	**101**	10/31/2020	JMK
2-Fluorophenol 10X Dilution	EPA-8270	**112**	11/05/2020	JMK
Phenol-d5	EPA-8270	**106**	10/31/2020	JMK
Phenol-d5 10X Dilution	EPA-8270	**91.7**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**97.3**	10/31/2020	JMK
Nitrobenzene-d5 10X Dilution	EPA-8270	**94.3**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**102**	10/31/2020	JMK
2-Fluorobiphenyl 10X Dilution	EPA-8270	**110**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**97.0**	10/31/2020	JMK
2,4,6-Tribromophenol 10X Dilution	EPA-8270	**107**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**51.7**	10/31/2020	JMK
Terphenyl-d14 10X Dilution	EPA-8270	**105**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:50:00 PM
CLIENT SAMPLE ID	B-3 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	**160**	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	**160**	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:50:00 PM
CLIENT SAMPLE ID	B-3 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:50:00 PM
CLIENT SAMPLE ID	B-3 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:50:00 PM
CLIENT SAMPLE ID	B-3 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**980**	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.29**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**67**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**8.3**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**100**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.24**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**67**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**61**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	**0.16**	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.0**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:50:00 PM
CLIENT SAMPLE ID	B-3 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**101**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**109**	11/02/2020	DLC
Toluene-d8	EPA-8260	**104**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**89.5**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**89.0**	11/05/2020	JMK
Phenol-d5	EPA-8270	**88.9**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**83.9**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**89.6**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**95.3**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**90.7**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:20:00 PM
CLIENT SAMPLE ID	B-7 13ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	**69**	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:20:00 PM
CLIENT SAMPLE ID	B-7 13ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/02/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/02/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:20:00 PM
CLIENT SAMPLE ID	B-7 13ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:20:00 PM
CLIENT SAMPLE ID	B-7 13ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	**120**	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	**100**	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.025**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**34**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.7**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**47**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.14**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**34**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**32**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**84.5**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:20:00 PM
CLIENT SAMPLE ID	B-7 13ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**102**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**106**	11/02/2020	DLC
Toluene-d8	EPA-8260	**100**	11/02/2020	DLC
4-Bromofluorobenzene	EPA-8260	**89.7**	11/02/2020	DLC
2-Fluorophenol	EPA-8270	**82.4**	10/31/2020	JMK
Phenol-d5	EPA-8270	**85.3**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**79.0**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**80.1**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**80.3**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**80.7**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-14
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:30:00 PM
CLIENT SAMPLE ID	B-7 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
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CLIENT SAMPLE ID	B-7 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-14
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:30:00 PM
CLIENT SAMPLE ID	B-7 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-14
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 4:30:00 PM
CLIENT SAMPLE ID	B-7 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**130**	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.024**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**54**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**5.0**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**85**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**54**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**6.1**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**98.8**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-14
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
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CLIENT SAMPLE ID	B-7 19ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**95.4**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**110**	11/03/2020	DLC
Toluene-d8	EPA-8260	**91.5**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**90.5**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**84.2**	10/31/2020	JMK
Phenol-d5	EPA-8270	**87.0**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**81.1**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**81.9**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**83.8**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**91.2**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-15
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 6:00:00 PM
CLIENT SAMPLE ID	MW-13 8 to 9ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-15
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 6:00:00 PM
CLIENT SAMPLE ID	MW-13 8 to 9ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-15
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 6:00:00 PM
CLIENT SAMPLE ID	MW-13 8 to 9ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.041**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**32**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.6**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**50**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**32**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.6**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**93.0**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-15
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 6:00:00 PM
CLIENT SAMPLE ID	MW-13 8 to 9ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**86.8**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**106**	11/03/2020	DLC
Toluene-d8	EPA-8260	**92.5**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**93.9**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**95.8**	10/31/2020	JMK
Phenol-d5	EPA-8270	**97.3**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**90.9**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**91.3**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**88.0**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**93.7**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-16
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:10:00 AM
CLIENT SAMPLE ID	B-4 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-16
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:10:00 AM
CLIENT SAMPLE ID	B-4 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-16
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:10:00 AM
CLIENT SAMPLE ID	B-4 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-16
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:10:00 AM
CLIENT SAMPLE ID	B-4 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**260**	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.021**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**74**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.6**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**60**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**74**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.6**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.2**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-16
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:10:00 AM
CLIENT SAMPLE ID	B-4 5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**84.6**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/03/2020	DLC
Toluene-d8	EPA-8260	**95.3**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**94.5**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**98.7**	10/31/2020	JMK
Phenol-d5	EPA-8270	**99.5**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**94.1**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**94.8**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**89.0**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**96.2**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-17
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:20:00 AM
CLIENT SAMPLE ID	B-4 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-17
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:20:00 AM
CLIENT SAMPLE ID	B-4 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-17
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:20:00 AM
CLIENT SAMPLE ID	B-4 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-17
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:20:00 AM
CLIENT SAMPLE ID	B-4 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**1200**	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.034**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**76**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.2**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**52**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.11**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**76**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.7**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	**0.27**	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**91.6**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-17
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 10:20:00 AM
CLIENT SAMPLE ID	B-4 10ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**87.1**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**108**	11/03/2020	DLC
Toluene-d8	EPA-8260	**88.3**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**96.3**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**95.3**	10/31/2020	JMK
Phenol-d5	EPA-8270	**95.5**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**92.9**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**92.9**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**84.0**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**99.6**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-18
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:20:00 PM
CLIENT SAMPLE ID	B-5 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-18
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:20:00 PM
CLIENT SAMPLE ID	B-5 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	10/31/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-18
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:20:00 PM
CLIENT SAMPLE ID	B-5 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	10/31/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-18
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:20:00 PM
CLIENT SAMPLE ID	B-5 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	10/31/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	10/31/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	10/31/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.032**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**35**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**3.8**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**46**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.10**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**36**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.3**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**93.8**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-18
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:20:00 PM
CLIENT SAMPLE ID	B-5 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**93.8**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/03/2020	DLC
Toluene-d8	EPA-8260	**90.3**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**99.7**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**88.8**	10/31/2020	JMK
Phenol-d5	EPA-8270	**88.0**	10/31/2020	JMK
Nitrobenzene-d5	EPA-8270	**86.6**	10/31/2020	JMK
2-Fluorobiphenyl	EPA-8270	**86.4**	10/31/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**72.4**	10/31/2020	JMK
Terphenyl-d14	EPA-8270	**91.9**	10/31/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-19
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:30:00 PM
CLIENT SAMPLE ID	B-5 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-19
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:30:00 PM
CLIENT SAMPLE ID	B-5 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-19
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:30:00 PM
CLIENT SAMPLE ID	B-5 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-19
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:30:00 PM
CLIENT SAMPLE ID	B-5 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**110**	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.032**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**50**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**4.3**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**40**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**33**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**2.6**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**89.1**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 12:30:00 PM
CLIENT SAMPLE ID	B-5 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**98.0**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/03/2020	DLC
Toluene-d8	EPA-8260	**89.7**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**98.8**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**101**	11/05/2020	JMK
Phenol-d5	EPA-8270	**104**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**84.2**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**82.0**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**90.1**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**88.0**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:45:00 PM
CLIENT SAMPLE ID	B-6 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/04/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-20
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:45:00 PM
CLIENT SAMPLE ID	B-6 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-20
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:45:00 PM
CLIENT SAMPLE ID	B-6 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-20
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:45:00 PM
CLIENT SAMPLE ID	B-6 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**200**	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/12/2020	EBS
Mercury	EPA-7471	**0.046**	0.020	1	MG/KG	11/04/2020	RAL
Chromium (III)	Calc-Cr3	**33**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**7.2**	0.20	1	MG/KG	11/05/2020	RAL
Barium	EPA-6020	**110**	0.10	1	MG/KG	11/05/2020	RAL
Cadmium	EPA-6020	**0.13**	0.10	1	MG/KG	11/05/2020	RAL
Chromium	EPA-6020	**50**	0.10	1	MG/KG	11/05/2020	RAL
Lead	EPA-6020	**5.4**	0.10	1	MG/KG	11/05/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/05/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/05/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**90.5**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-20
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:45:00 PM
CLIENT SAMPLE ID	B-6 9ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**101**	11/04/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**107**	11/03/2020	DLC
Toluene-d8	EPA-8260	**89.8**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**96.6**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**81.0**	11/05/2020	JMK
Phenol-d5	EPA-8270	**79.4**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**76.0**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**82.6**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**77.1**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**91.5**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-21
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:55:00 PM
CLIENT SAMPLE ID	B-6 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/02/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/05/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/05/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-21
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:55:00 PM
CLIENT SAMPLE ID	B-6 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/03/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/03/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-21
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:55:00 PM
CLIENT SAMPLE ID	B-6 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-21
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:55:00 PM
CLIENT SAMPLE ID	B-6 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/05/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/05/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/06/2020	RAL
Mercury	EPA-7471	**0.045**	0.020	1	MG/KG	11/02/2020	RAL
Chromium (III)	Calc-Cr3	**50**	0.50	1	MG/KG	11/04/2020	RAL
Arsenic	EPA-6020	**6.7**	0.20	1	MG/KG	11/02/2020	RAL
Barium	EPA-6020	**100**	0.10	1	MG/KG	11/02/2020	RAL
Cadmium	EPA-6020	**0.12**	0.10	1	MG/KG	11/02/2020	RAL
Chromium	EPA-6020	**50**	0.10	1	MG/KG	11/02/2020	RAL
Lead	EPA-6020	**5.0**	0.10	1	MG/KG	11/02/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/02/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/02/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**103**	11/02/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/13/2020 EV20100187 EV20100187-21
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/30/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/29/2020 2:55:00 PM
CLIENT SAMPLE ID	B-6 11.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**95.7**	11/05/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**107**	11/03/2020	DLC
Toluene-d8	EPA-8260	**90.4**	11/03/2020	DLC
4-Bromofluorobenzene	EPA-8260	**98.3**	11/03/2020	DLC
2-Fluorophenol	EPA-8270	**81.5**	11/05/2020	JMK
Phenol-d5	EPA-8270	**82.0**	11/05/2020	JMK
Nitrobenzene-d5	EPA-8270	**76.8**	11/05/2020	JMK
2-Fluorobiphenyl	EPA-8270	**80.7**	11/05/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**76.3**	11/05/2020	JMK
Terphenyl-d14	EPA-8270	**87.9**	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBG-110120S - Batch 159159 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	11/01/2020	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MBG-110220S - Batch 159195 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	11/02/2020	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110320S - Batch 159342 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	11/03/2020	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	11/03/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110420S - Batch 159304 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	11/04/2020	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	11/04/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111120S - Batch 159631 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	11/11/2020	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	11/11/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110220S - Batch 159255 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Chloromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Bromomethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Chloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110220S - Batch 159255 - Soil by EPA-8260

Carbon Tetrachloride	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Acetone	EPA-8260	U	UG/KG	50	11/02/2020	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	11/02/2020	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	11/02/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
2-Butanone	EPA-8260	U	UG/KG	50	11/02/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Chloroform	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Benzene	EPA-8260	U	UG/KG	5.0	11/02/2020	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	11/02/2020	DLC
Toluene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	11/02/2020	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	11/02/2020	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	11/02/2020	DLC
Styrene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
o-Xylene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Bromoform	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC

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CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110220S - Batch 159255 - Soil by EPA-8260

1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	11/02/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
Naphthalene	EPA-8260	U	UG/KG	10	11/02/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/02/2020	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110220S2 - Batch 159256 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Chloromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Bromomethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Chloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Carbon Tetrachloride	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Acetone	EPA-8260	U	UG/KG	50	11/03/2020	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	11/03/2020	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	11/03/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
2-Butanone	EPA-8260	U	UG/KG	50	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110220S2 - Batch 159256 - Soil by EPA-8260

Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Chloroform	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Benzene	EPA-8260	U	UG/KG	5.0	11/03/2020	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	11/03/2020	DLC
Toluene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	11/03/2020	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	11/03/2020	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	11/03/2020	DLC
Styrene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
o-Xylene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Bromoform	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	11/03/2020	DLC

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
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		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110220S2 - Batch 159256 - Soil by EPA-8260

1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	11/03/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
Naphthalene	EPA-8260	U	UG/KG	10	11/03/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/03/2020	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-103020S - Batch 159149 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	10/30/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Phenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Aniline	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	10/30/2020	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	10/30/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	10/30/2020	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	10/30/2020	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Isophorone	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Benzoic Acid	EPA-8270	U	UG/KG	1000	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	10/30/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	10/30/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Naphthalene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	10/30/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	10/30/2020	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-103020S - Batch 159149 - Soil by EPA-8270

4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	10/30/2020	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	10/30/2020	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	10/30/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Dimethylphthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	10/30/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Fluorene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	10/30/2020	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	10/30/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Azobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	10/30/2020	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Anthracene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Carbazole	EPA-8270	U	UG/KG	250	10/30/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Pyrene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	10/30/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Chrysene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	10/30/2020	JMK

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CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-103020S - Batch 159149 - Soil by EPA-8270

Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	10/30/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	10/30/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110420S - Batch 159297 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	11/05/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Phenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Aniline	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	11/05/2020	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	11/05/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	11/05/2020	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	11/05/2020	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Isophorone	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Benzoic Acid	EPA-8270	U	UG/KG	1000	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	11/05/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	11/05/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Naphthalene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	11/05/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	11/05/2020	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	11/05/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	11/05/2020	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	11/05/2020	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	11/05/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	11/05/2020	JMK

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CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110420S - Batch 159297 - Soil by EPA-8270

2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Dimethylphthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	11/05/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Fluorene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	11/05/2020	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	11/05/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Azobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	11/05/2020	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Anthracene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Carbazole	EPA-8270	U	UG/KG	250	11/05/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Pyrene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	11/05/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Chrysene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	11/05/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-110420S - Batch 159297 - Soil by EPA-8270

Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	11/05/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R372553 - Batch R372553 - Soil by EPA-7196

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (VI)	EPA-7196	U	MG/KG	5.0	11/04/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R372556 - Batch R372556 - Soil by EPA-7196

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (VI)	EPA-7196	U	MG/KG	5.0	11/06/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R372557 - Batch R372557 - Soil by EPA-7196

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (VI)	EPA-7196	U	MG/KG	5.0	11/12/2020	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R371897 - Batch R371897 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	11/02/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R372558 - Batch R372558 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	11/04/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110220S - Batch 159186 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	11/02/2020	RAL
Barium	EPA-6020	U	MG/KG	0.12	11/02/2020	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	11/02/2020	RAL
Chromium	EPA-6020	U	MG/KG	0.10	11/02/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225
CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

DATE: 11/13/2020
ALS SDG#: EV20100187
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-110220S - Batch 159186 - Soil by EPA-6020

Lead	EPA-6020	U	MG/KG	0.10	11/02/2020	RAL
Selenium	EPA-6020	U	MG/KG	1.0	11/02/2020	RAL
Silver	EPA-6020	U	MG/KG	0.10	11/02/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-110420S - Batch 159360 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	11/05/2020	RAL
Barium	EPA-6020	U	MG/KG	0.12	11/05/2020	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	11/05/2020	RAL
Chromium	EPA-6020	U	MG/KG	0.10	11/05/2020	RAL
Lead	EPA-6020	U	MG/KG	0.10	11/05/2020	RAL
Selenium	EPA-6020	U	MG/KG	1.0	11/05/2020	RAL
Silver	EPA-6020	U	MG/KG	0.10	11/05/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 159159 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**102**			66.5	122.7	11/01/2020	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**101**	**1**		66.5	122.7	11/01/2020	KLS

ALS Test Batch ID: 159195 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**99.0**			66.5	122.7	11/02/2020	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**102**	**3**		66.5	122.7	11/02/2020	KLS

ALS Test Batch ID: 159304 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**121**			75.5	122.1	11/04/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**120**	**1**		75.5	122.1	11/04/2020	JNF

ALS Test Batch ID: 159342 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**103**			75.5	122.1	11/03/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**112**	**9**		75.5	122.1	11/03/2020	JNF

ALS Test Batch ID: 159631 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**105**			75.5	122.1	11/11/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**109**	**4**		75.5	122.1	11/11/2020	JNF

ALS Test Batch ID: 159255 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**96.4**			50	150	11/02/2020	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**89.3**	**8**		50	150	11/02/2020	DLC
Chloromethane - BS	EPA-8260	**92.8**			50	150	11/02/2020	DLC
Chloromethane - BSD	EPA-8260	**89.1**	**4**		50	150	11/02/2020	DLC
Vinyl Chloride - BS	EPA-8260	**103**			50	150	11/02/2020	DLC
Vinyl Chloride - BSD	EPA-8260	**95.6**	**7**		50	150	11/02/2020	DLC
Bromomethane - BS	EPA-8260	**114**			50	150	11/02/2020	DLC
Bromomethane - BSD	EPA-8260	**102**	**11**		50	150	11/02/2020	DLC
Chloroethane - BS	EPA-8260	**92.2**			50	150	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chloroethane - BSD	EPA-8260	**87.6**	**5**		50	150	11/02/2020	DLC
Carbon Tetrachloride - BS	EPA-8260	**114**			50	150	11/02/2020	DLC
Carbon Tetrachloride - BSD	EPA-8260	**108**	**6**		50	150	11/02/2020	DLC
Trichlorofluoromethane - BS	EPA-8260	**115**			50	150	11/02/2020	DLC
Trichlorofluoromethane - BSD	EPA-8260	**109**	**6**		50	150	11/02/2020	DLC
Carbon Disulfide - BS	EPA-8260	**101**			50	150	11/02/2020	DLC
Carbon Disulfide - BSD	EPA-8260	**95.3**	**6**		50	150	11/02/2020	DLC
Acetone - BS	EPA-8260	**93.0**			50	150	11/02/2020	DLC
Acetone - BSD	EPA-8260	**101**	**8**		50	150	11/02/2020	DLC
1,1-Dichloroethene - BS	EPA-8260	**105**			70	130	11/02/2020	DLC
1,1-Dichloroethene - BSD	EPA-8260	**96.2**	**9**		70	130	11/02/2020	DLC
Methylene Chloride - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
Methylene Chloride - BSD	EPA-8260	**97.0**	**10**		50	150	11/02/2020	DLC
Acrylonitrile - BS	EPA-8260	**111**			50	150	11/02/2020	DLC
Acrylonitrile - BSD	EPA-8260	**103**	**7**		50	150	11/02/2020	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**116**			50	150	11/02/2020	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**111**	**5**		50	150	11/02/2020	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**105**			50	150	11/02/2020	DLC
Trans-1,2-Dichloroethene - BSD	EPA-8260	**100**	**5**		50	150	11/02/2020	DLC
1,1-Dichloroethane - BS	EPA-8260	**118**			50	150	11/02/2020	DLC
1,1-Dichloroethane - BSD	EPA-8260	**113**	**5**		50	150	11/02/2020	DLC
2-Butanone - BS	EPA-8260	**97.4**			50	150	11/02/2020	DLC
2-Butanone - BSD	EPA-8260	**83.7**	**15**		50	150	11/02/2020	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**105**			50	150	11/02/2020	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**103**	**2**		50	150	11/02/2020	DLC
2,2-Dichloropropane - BS	EPA-8260	**110**			50	150	11/02/2020	DLC
2,2-Dichloropropane - BSD	EPA-8260	**103**	**6**		50	150	11/02/2020	DLC
Bromochloromethane - BS	EPA-8260	**99.9**			50	150	11/02/2020	DLC
Bromochloromethane - BSD	EPA-8260	**97.4**	**3**		50	150	11/02/2020	DLC
Chloroform - BS	EPA-8260	**115**			50	150	11/02/2020	DLC
Chloroform - BSD	EPA-8260	**112**	**3**		50	150	11/02/2020	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**112**			50	150	11/02/2020	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**106**	**5**		50	150	11/02/2020	DLC
1,1-Dichloropropene - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
1,1-Dichloropropene - BSD	EPA-8260	**99.0**	**8**		50	150	11/02/2020	DLC
1,2-Dichloroethane - BS	EPA-8260	**105**			50	150	11/02/2020	DLC
1,2-Dichloroethane - BSD	EPA-8260	**99.2**	**6**		50	150	11/02/2020	DLC
Benzene - BS	EPA-8260	**99.2**			75	138	11/02/2020	DLC
Benzene - BSD	EPA-8260	**90.2**	**9**		75	138	11/02/2020	DLC
Trichloroethene - BS	EPA-8260	**107**			75	136	11/02/2020	DLC

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CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Trichloroethene - BSD	EPA-8260	**100**	**7**		75	136	11/02/2020	DLC
1,2-Dichloropropane - BS	EPA-8260	**99.3**			50	150	11/02/2020	DLC
1,2-Dichloropropane - BSD	EPA-8260	**96.1**	**3**		50	150	11/02/2020	DLC
Dibromomethane - BS	EPA-8260	**106**			50	150	11/02/2020	DLC
Dibromomethane - BSD	EPA-8260	**97.3**	**9**		50	150	11/02/2020	DLC
Bromodichloromethane - BS	EPA-8260	**110**			50	150	11/02/2020	DLC
Bromodichloromethane - BSD	EPA-8260	**102**	**7**		50	150	11/02/2020	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**102**	**5**		50	150	11/02/2020	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**111**			50	150	11/02/2020	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**109**	**2**		50	150	11/02/2020	DLC
Toluene - BS	EPA-8260	**109**			71.6	122.1	11/02/2020	DLC
Toluene - BSD	EPA-8260	**102**	**7**		71.6	122.1	11/02/2020	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**112**			50	150	11/02/2020	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**107**	**5**		50	150	11/02/2020	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**114**			50	150	11/02/2020	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**106**	**7**		50	150	11/02/2020	DLC
2-Hexanone - BS	EPA-8260	**104**			50	150	11/02/2020	DLC
2-Hexanone - BSD	EPA-8260	**102**	**1**		50	150	11/02/2020	DLC
1,3-Dichloropropane - BS	EPA-8260	**117**			50	150	11/02/2020	DLC
1,3-Dichloropropane - BSD	EPA-8260	**111**	**5**		50	150	11/02/2020	DLC
Tetrachloroethylene - BS	EPA-8260	**113**			50	150	11/02/2020	DLC
Tetrachloroethylene - BSD	EPA-8260	**103**	**9**		50	150	11/02/2020	DLC
Dibromochloromethane - BS	EPA-8260	**104**			50	150	11/02/2020	DLC
Dibromochloromethane - BSD	EPA-8260	**99.4**	**5**		50	150	11/02/2020	DLC
1,2-Dibromoethane - BS	EPA-8260	**106**			50	150	11/02/2020	DLC
1,2-Dibromoethane - BSD	EPA-8260	**100**	**5**		50	150	11/02/2020	DLC
Chlorobenzene - BS	EPA-8260	**114**			79	128	11/02/2020	DLC
Chlorobenzene - BSD	EPA-8260	**106**	**8**		79	128	11/02/2020	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**118**			50	150	11/02/2020	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**110**	**6**		50	150	11/02/2020	DLC
Ethylbenzene - BS	EPA-8260	**108**			50	150	11/02/2020	DLC
Ethylbenzene - BSD	EPA-8260	**98.5**	**9**		50	150	11/02/2020	DLC
m,p-Xylene - BS	EPA-8260	**105**			50	150	11/02/2020	DLC
m,p-Xylene - BSD	EPA-8260	**97.4**	**8**		50	150	11/02/2020	DLC
Styrene - BS	EPA-8260	**114**			50	150	11/02/2020	DLC
Styrene - BSD	EPA-8260	**108**	**5**		50	150	11/02/2020	DLC
o-Xylene - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
o-Xylene - BSD	EPA-8260	**103**	**4**		50	150	11/02/2020	DLC
Bromoform - BS	EPA-8260	**106**			50	150	11/02/2020	DLC

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CERTIFICATE OF ANALYSIS

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DATE: 11/13/2020
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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bromoform - BSD	EPA-8260	**101**	**5**		50	150	11/02/2020	DLC
Isopropylbenzene - BS	EPA-8260	**116**			50	150	11/02/2020	DLC
Isopropylbenzene - BSD	EPA-8260	**110**	**5**		50	150	11/02/2020	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**102**			50	150	11/02/2020	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**95.1**	**7**		50	150	11/02/2020	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**101**			50	150	11/02/2020	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**105**	**4**		50	150	11/02/2020	DLC
Bromobenzene - BS	EPA-8260	**104**			50	150	11/02/2020	DLC
Bromobenzene - BSD	EPA-8260	**99.0**	**5**		50	150	11/02/2020	DLC
N-Propyl Benzene - BS	EPA-8260	**103**			50	150	11/02/2020	DLC
N-Propyl Benzene - BSD	EPA-8260	**97.3**	**6**		50	150	11/02/2020	DLC
2-Chlorotoluene - BS	EPA-8260	**101**			50	150	11/02/2020	DLC
2-Chlorotoluene - BSD	EPA-8260	**94.8**	**6**		50	150	11/02/2020	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**101**			50	150	11/02/2020	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**94.2**	**6**		50	150	11/02/2020	DLC
4-Chlorotoluene - BS	EPA-8260	**99.5**			50	150	11/02/2020	DLC
4-Chlorotoluene - BSD	EPA-8260	**92.4**	**7**		50	150	11/02/2020	DLC
T-Butyl Benzene - BS	EPA-8260	**110**			50	150	11/02/2020	DLC
T-Butyl Benzene - BSD	EPA-8260	**103**	**7**		50	150	11/02/2020	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**103**			50	150	11/02/2020	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**96.0**	**7**		50	150	11/02/2020	DLC
S-Butyl Benzene - BS	EPA-8260	**102**			50	150	11/02/2020	DLC
S-Butyl Benzene - BSD	EPA-8260	**95.3**	**7**		50	150	11/02/2020	DLC
P-Isopropyltoluene - BS	EPA-8260	**102**			50	150	11/02/2020	DLC
P-Isopropyltoluene - BSD	EPA-8260	**95.5**	**7**		50	150	11/02/2020	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**104**			50	150	11/02/2020	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**96.6**	**7**		50	150	11/02/2020	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**95.2**			50	150	11/02/2020	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**89.4**	**6**		50	150	11/02/2020	DLC
N-Butylbenzene - BS	EPA-8260	**100**			50	150	11/02/2020	DLC
N-Butylbenzene - BSD	EPA-8260	**95.1**	**5**		50	150	11/02/2020	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**100**	**6**		50	150	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**94.7**			50	150	11/02/2020	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**96.0**	**1**		50	150	11/02/2020	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**107**			50	150	11/02/2020	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**99.3**	**7**		50	150	11/02/2020	DLC
Hexachlorobutadiene - BS	EPA-8260	**104**			50	150	11/02/2020	DLC
Hexachlorobutadiene - BSD	EPA-8260	**92.9**	**11**		50	150	11/02/2020	DLC
Naphthalene - BS	EPA-8260	**102**			50	150	11/02/2020	DLC

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS SDG#: WDOE ACCREDITATION:	11/13/2020 EV20100187 C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BSD	EPA-8260	**99.8**	**3**		50	150	11/02/2020	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**106**			50	150	11/02/2020	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**100**	**6**		50	150	11/02/2020	DLC

ALS Test Batch ID: 159256 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**99.0**			50	150	11/03/2020	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**94.3**	**5**		50	150	11/03/2020	DLC
Chloromethane - BS	EPA-8260	**101**			50	150	11/03/2020	DLC
Chloromethane - BSD	EPA-8260	**97.2**	**3**		50	150	11/03/2020	DLC
Vinyl Chloride - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Vinyl Chloride - BSD	EPA-8260	**104**	**4**		50	150	11/03/2020	DLC
Bromomethane - BS	EPA-8260	**113**			50	150	11/03/2020	DLC
Bromomethane - BSD	EPA-8260	**108**	**5**		50	150	11/03/2020	DLC
Chloroethane - BS	EPA-8260	**95.3**			50	150	11/03/2020	DLC
Chloroethane - BSD	EPA-8260	**93.3**	**2**		50	150	11/03/2020	DLC
Carbon Tetrachloride - BS	EPA-8260	**123**			50	150	11/03/2020	DLC
Carbon Tetrachloride - BSD	EPA-8260	**116**	**6**		50	150	11/03/2020	DLC
Trichlorofluoromethane - BS	EPA-8260	**121**			50	150	11/03/2020	DLC
Trichlorofluoromethane - BSD	EPA-8260	**118**	**3**		50	150	11/03/2020	DLC
Carbon Disulfide - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Carbon Disulfide - BSD	EPA-8260	**102**	**5**		50	150	11/03/2020	DLC
Acetone - BS	EPA-8260	**99.9**			50	150	11/03/2020	DLC
Acetone - BSD	EPA-8260	**106**	**6**		50	150	11/03/2020	DLC
1,1-Dichloroethene - BS	EPA-8260	**110**			70	130	11/03/2020	DLC
1,1-Dichloroethene - BSD	EPA-8260	**112**	**2**		70	130	11/03/2020	DLC
Methylene Chloride - BS	EPA-8260	**157**		S	50	150	11/03/2020	DLC
Methylene Chloride - BSD	EPA-8260	**155**	**1**	SQ3	50	150	11/03/2020	DLC
Acrylonitrile - BS	EPA-8260	**116**			50	150	11/03/2020	DLC
Acrylonitrile - BSD	EPA-8260	**111**	**4**		50	150	11/03/2020	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**117**			50	150	11/03/2020	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**116**	**2**		50	150	11/03/2020	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**105**			50	150	11/03/2020	DLC
Trans-1,2-Dichloroethene - BSD	EPA-8260	**101**	**4**		50	150	11/03/2020	DLC
1,1-Dichloroethane - BS	EPA-8260	**125**			50	150	11/03/2020	DLC
1,1-Dichloroethane - BSD	EPA-8260	**121**	**3**		50	150	11/03/2020	DLC
2-Butanone - BS	EPA-8260	**96.9**			50	150	11/03/2020	DLC
2-Butanone - BSD	EPA-8260	**95.5**	**1**		50	150	11/03/2020	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**113**			50	150	11/03/2020	DLC

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CERTIFICATE OF ANALYSIS

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ALS SDG#: EV20100187
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Cis-1,2-Dichloroethene - BSD	EPA-8260	**110**	**3**		50	150	11/03/2020	DLC
2,2-Dichloropropane - BS	EPA-8260	**110**			50	150	11/03/2020	DLC
2,2-Dichloropropane - BSD	EPA-8260	**107**	**3**		50	150	11/03/2020	DLC
Bromochloromethane - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Bromochloromethane - BSD	EPA-8260	**102**	**5**		50	150	11/03/2020	DLC
Chloroform - BS	EPA-8260	**117**			50	150	11/03/2020	DLC
Chloroform - BSD	EPA-8260	**115**	**1**		50	150	11/03/2020	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**117**			50	150	11/03/2020	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**116**	**1**		50	150	11/03/2020	DLC
1,1-Dichloropropene - BS	EPA-8260	**115**			50	150	11/03/2020	DLC
1,1-Dichloropropene - BSD	EPA-8260	**110**	**5**		50	150	11/03/2020	DLC
1,2-Dichloroethane - BS	EPA-8260	**105**			50	150	11/03/2020	DLC
1,2-Dichloroethane - BSD	EPA-8260	**107**	**1**		50	150	11/03/2020	DLC
Benzene - BS	EPA-8260	**99.6**			75	138	11/03/2020	DLC
Benzene - BSD	EPA-8260	**98.3**	**1**		75	138	11/03/2020	DLC
Trichloroethene - BS	EPA-8260	**107**			75	136	11/03/2020	DLC
Trichloroethene - BSD	EPA-8260	**109**	**1**		75	136	11/03/2020	DLC
1,2-Dichloropropane - BS	EPA-8260	**101**			50	150	11/03/2020	DLC
1,2-Dichloropropane - BSD	EPA-8260	**105**	**4**		50	150	11/03/2020	DLC
Dibromomethane - BS	EPA-8260	**106**			50	150	11/03/2020	DLC
Dibromomethane - BSD	EPA-8260	**107**	**0**		50	150	11/03/2020	DLC
Bromodichloromethane - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Bromodichloromethane - BSD	EPA-8260	**107**	**1**		50	150	11/03/2020	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**102**			50	150	11/03/2020	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**102**	**0**		50	150	11/03/2020	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**114**			50	150	11/03/2020	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**110**	**3**		50	150	11/03/2020	DLC
Toluene - BS	EPA-8260	**111**			71.6	122.1	11/03/2020	DLC
Toluene - BSD	EPA-8260	**108**	**2**		71.6	122.1	11/03/2020	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**109**	**1**		50	150	11/03/2020	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**117**			50	150	11/03/2020	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**112**	**4**		50	150	11/03/2020	DLC
2-Hexanone - BS	EPA-8260	**106**			50	150	11/03/2020	DLC
2-Hexanone - BSD	EPA-8260	**103**	**2**		50	150	11/03/2020	DLC
1,3-Dichloropropane - BS	EPA-8260	**115**			50	150	11/03/2020	DLC
1,3-Dichloropropane - BSD	EPA-8260	**116**	**1**		50	150	11/03/2020	DLC
Tetrachloroethylene - BS	EPA-8260	**115**			50	150	11/03/2020	DLC
Tetrachloroethylene - BSD	EPA-8260	**112**	**2**		50	150	11/03/2020	DLC
Dibromochloromethane - BS	EPA-8260	**105**			50	150	11/03/2020	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane - BSD	EPA-8260	**105**	**0**		50	150	11/03/2020	DLC
1,2-Dibromoethane - BS	EPA-8260	**104**			50	150	11/03/2020	DLC
1,2-Dibromoethane - BSD	EPA-8260	**105**	**1**		50	150	11/03/2020	DLC
Chlorobenzene - BS	EPA-8260	**110**			79	128	11/03/2020	DLC
Chlorobenzene - BSD	EPA-8260	**111**	**1**		79	128	11/03/2020	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**115**			50	150	11/03/2020	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**116**	**1**		50	150	11/03/2020	DLC
Ethylbenzene - BS	EPA-8260	**104**			50	150	11/03/2020	DLC
Ethylbenzene - BSD	EPA-8260	**105**	**1**		50	150	11/03/2020	DLC
m,p-Xylene - BS	EPA-8260	**103**			50	150	11/03/2020	DLC
m,p-Xylene - BSD	EPA-8260	**102**	**0**		50	150	11/03/2020	DLC
Styrene - BS	EPA-8260	**113**			50	150	11/03/2020	DLC
Styrene - BSD	EPA-8260	**113**	**0**		50	150	11/03/2020	DLC
o-Xylene - BS	EPA-8260	**109**			50	150	11/03/2020	DLC
o-Xylene - BSD	EPA-8260	**109**	**0**		50	150	11/03/2020	DLC
Bromoform - BS	EPA-8260	**103**			50	150	11/03/2020	DLC
Bromoform - BSD	EPA-8260	**104**	**1**		50	150	11/03/2020	DLC
Isopropylbenzene - BS	EPA-8260	**115**			50	150	11/03/2020	DLC
Isopropylbenzene - BSD	EPA-8260	**115**	**1**		50	150	11/03/2020	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**107**			50	150	11/03/2020	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**105**	**2**		50	150	11/03/2020	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**111**			50	150	11/03/2020	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**106**	**5**		50	150	11/03/2020	DLC
Bromobenzene - BS	EPA-8260	**109**			50	150	11/03/2020	DLC
Bromobenzene - BSD	EPA-8260	**109**	**0**		50	150	11/03/2020	DLC
N-Propyl Benzene - BS	EPA-8260	**107**			50	150	11/03/2020	DLC
N-Propyl Benzene - BSD	EPA-8260	**107**	**0**		50	150	11/03/2020	DLC
2-Chlorotoluene - BS	EPA-8260	**104**			50	150	11/03/2020	DLC
2-Chlorotoluene - BSD	EPA-8260	**104**	**0**		50	150	11/03/2020	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**105**			50	150	11/03/2020	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**102**	**3**		50	150	11/03/2020	DLC
4-Chlorotoluene - BS	EPA-8260	**102**			50	150	11/03/2020	DLC
4-Chlorotoluene - BSD	EPA-8260	**103**	**1**		50	150	11/03/2020	DLC
T-Butyl Benzene - BS	EPA-8260	**116**			50	150	11/03/2020	DLC
T-Butyl Benzene - BSD	EPA-8260	**113**	**3**		50	150	11/03/2020	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**106**			50	150	11/03/2020	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**106**	**0**		50	150	11/03/2020	DLC
S-Butyl Benzene - BS	EPA-8260	**106**			50	150	11/03/2020	DLC
S-Butyl Benzene - BSD	EPA-8260	**103**	**3**		50	150	11/03/2020	DLC
P-Isopropyltoluene - BS	EPA-8260	**105**			50	150	11/03/2020	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
P-Isopropyltoluene - BSD	EPA-8260	**104**	**1**		50	150	11/03/2020	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**107**			50	150	11/03/2020	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**107**	**0**		50	150	11/03/2020	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**103**			50	150	11/03/2020	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**100**	**3**		50	150	11/03/2020	DLC
N-Butylbenzene - BS	EPA-8260	**103**			50	150	11/03/2020	DLC
N-Butylbenzene - BSD	EPA-8260	**100**	**3**		50	150	11/03/2020	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**110**			50	150	11/03/2020	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**112**	**2**		50	150	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**95.8**			50	150	11/03/2020	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**92.2**	**4**		50	150	11/03/2020	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**106**			50	150	11/03/2020	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**109**	**2**		50	150	11/03/2020	DLC
Hexachlorobutadiene - BS	EPA-8260	**104**			50	150	11/03/2020	DLC
Hexachlorobutadiene - BSD	EPA-8260	**102**	**2**		50	150	11/03/2020	DLC
Naphthalene - BS	EPA-8260	**108**			50	150	11/03/2020	DLC
Naphthalene - BSD	EPA-8260	**109**	**2**		50	150	11/03/2020	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**111**			50	150	11/03/2020	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**113**	**2**		50	150	11/03/2020	DLC

S - Outside of control limits.
SQ3 - Spike outside of control limits due to sporadic marginal failure. All other spikes in extraction fraction within control limits. No corrective action taken.

ALS Test Batch ID: 159149 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**76.1**			20	150	10/30/2020	JMK
Pyridine - BSD	EPA-8270	**69.2**	**10**		20	150	10/30/2020	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**105**			20	150	10/30/2020	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**109**	**4**		20	150	10/30/2020	JMK
Phenol - BS	EPA-8270	**93.7**			36.1	131	10/30/2020	JMK
Phenol - BSD	EPA-8270	**89.6**	**5**		36.1	131	10/30/2020	JMK
Aniline - BS	EPA-8270	**44.6**			20	150	10/30/2020	JMK
Aniline - BSD	EPA-8270	**52.5**	**16**		20	150	10/30/2020	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**82.1**			20	150	10/30/2020	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**81.1**	**1**		20	150	10/30/2020	JMK
2-Chlorophenol - BS	EPA-8270	**84.3**			59.9	111	10/30/2020	JMK
2-Chlorophenol - BSD	EPA-8270	**85.8**	**2**		59.9	111	10/30/2020	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**78.7**			20	150	10/30/2020	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**79.0**	**0**		20	150	10/30/2020	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**80.5**			44.3	122	10/30/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene - BSD	EPA-8270	**79.6**	**1**		44.3	122	10/30/2020	JMK
Benzyl Alcohol - BS	EPA-8270	**106**			20	150	10/30/2020	JMK
Benzyl Alcohol - BSD	EPA-8270	**106**	**0**		20	150	10/30/2020	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**83.7**			20	150	10/30/2020	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**82.8**	**1**		20	150	10/30/2020	JMK
2-Methylphenol - BS	EPA-8270	**89.8**			20	150	10/30/2020	JMK
2-Methylphenol - BSD	EPA-8270	**91.0**	**1**		20	150	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**115**			20	150	10/30/2020	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**115**	**0**		20	150	10/30/2020	JMK
3&4-Methylphenol - BS	EPA-8270	**93.7**			20	150	10/30/2020	JMK
3&4-Methylphenol - BSD	EPA-8270	**92.1**	**2**		20	150	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**100**			31.6	134	10/30/2020	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**102**	**2**		31.6	134	10/30/2020	JMK
Hexachloroethane - BS	EPA-8270	**84.6**			20	150	10/30/2020	JMK
Hexachloroethane - BSD	EPA-8270	**85.4**	**1**		20	150	10/30/2020	JMK
Nitrobenzene - BS	EPA-8270	**97.5**			20	150	10/30/2020	JMK
Nitrobenzene - BSD	EPA-8270	**97.9**	**0**		20	150	10/30/2020	JMK
Isophorone - BS	EPA-8270	**88.6**			20	150	10/30/2020	JMK
Isophorone - BSD	EPA-8270	**86.6**	**2**		20	150	10/30/2020	JMK
2-Nitrophenol - BS	EPA-8270	**74.2**			20	150	10/30/2020	JMK
2-Nitrophenol - BSD	EPA-8270	**74.7**	**1**		20	150	10/30/2020	JMK
2,4-Dimethylphenol - BS	EPA-8270	**68.0**			20	150	10/30/2020	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**77.2**	**13**		20	150	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**93.7**			20	150	10/30/2020	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**92.1**	**2**		20	150	10/30/2020	JMK
2,4-Dichlorophenol - BS	EPA-8270	**85.2**			20	150	10/30/2020	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**83.5**	**2**		20	150	10/30/2020	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**79.1**			44.6	122	10/30/2020	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**79.4**	**0**		44.6	122	10/30/2020	JMK
Naphthalene - BS	EPA-8270	**89.0**			20	150	10/30/2020	JMK
Naphthalene - BSD	EPA-8270	**88.2**	**1**		20	150	10/30/2020	JMK
4-Chloroaniline - BS	EPA-8270	**53.6**			20	150	10/30/2020	JMK
4-Chloroaniline - BSD	EPA-8270	**55.5**	**3**		20	150	10/30/2020	JMK
Hexachlorobutadiene - BS	EPA-8270	**80.5**			20	150	10/30/2020	JMK
Hexachlorobutadiene - BSD	EPA-8270	**80.8**	**0**		20	150	10/30/2020	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**102**			49.2	135	10/30/2020	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**98.6**	**4**		49.2	135	10/30/2020	JMK
2-Methylnaphthalene - BS	EPA-8270	**88.1**			20	150	10/30/2020	JMK
2-Methylnaphthalene - BSD	EPA-8270	**86.3**	**2**		20	150	10/30/2020	JMK
1-Methylnaphthalene - BS	EPA-8270	**85.8**			20	150	10/30/2020	JMK

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1-Methylnaphthalene - BSD	EPA-8270	**83.5**	**3**		20	150	10/30/2020	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**61.3**			20	150	10/30/2020	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**65.6**	**7**		20	150	10/30/2020	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**91.7**			20	150	10/30/2020	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**90.7**	**1**		20	150	10/30/2020	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**94.8**			20	150	10/30/2020	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**91.8**	**3**		20	150	10/30/2020	JMK
2-Chloronaphthalene - BS	EPA-8270	**97.9**			20	150	10/30/2020	JMK
2-Chloronaphthalene - BSD	EPA-8270	**94.8**	**3**		20	150	10/30/2020	JMK
2-Nitroaniline - BS	EPA-8270	**113**			20	150	10/30/2020	JMK
2-Nitroaniline - BSD	EPA-8270	**108**	**4**		20	150	10/30/2020	JMK
Acenaphthylene - BS	EPA-8270	**84.4**			20	150	10/30/2020	JMK
Acenaphthylene - BSD	EPA-8270	**81.0**	**4**		20	150	10/30/2020	JMK
Dimethylphthalate - BS	EPA-8270	**102**			20	150	10/30/2020	JMK
Dimethylphthalate - BSD	EPA-8270	**95.5**	**7**		20	150	10/30/2020	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**98.4**			20	150	10/30/2020	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**93.5**	**5**		20	150	10/30/2020	JMK
Acenaphthene - BS	EPA-8270	**92.7**			49.3	117	10/30/2020	JMK
Acenaphthene - BSD	EPA-8270	**88.4**	**5**		49.3	117	10/30/2020	JMK
3-Nitroaniline - BS	EPA-8270	**134**			20	150	10/30/2020	JMK
3-Nitroaniline - BSD	EPA-8270	**128**	**5**		20	150	10/30/2020	JMK
2,4-Dinitrophenol - BS	EPA-8270	**98.0**			20	150	10/30/2020	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**92.7**	**6**		20	150	10/30/2020	JMK
4-Nitrophenol - BS	EPA-8270	**87.5**			29.8	137	10/30/2020	JMK
4-Nitrophenol - BSD	EPA-8270	**82.2**	**6**		29.8	137	10/30/2020	JMK
Dibenzofuran - BS	EPA-8270	**98.8**			20	150	10/30/2020	JMK
Dibenzofuran - BSD	EPA-8270	**93.7**	**5**		20	150	10/30/2020	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**94.3**			55.3	130	10/30/2020	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**88.4**	**7**		55.3	130	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**87.0**			20	150	10/30/2020	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**85.1**	**2**		20	150	10/30/2020	JMK
Diethylphthalate - BS	EPA-8270	**107**			20	150	10/30/2020	JMK
Diethylphthalate - BSD	EPA-8270	**98.2**	**8**		20	150	10/30/2020	JMK
Fluorene - BS	EPA-8270	**102**			20	150	10/30/2020	JMK
Fluorene - BSD	EPA-8270	**94.0**	**8**		20	150	10/30/2020	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**94.4**			20	150	10/30/2020	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**88.7**	**6**		20	150	10/30/2020	JMK
4-Nitroaniline - BS	EPA-8270	**220**		SQ1	20	150	10/30/2020	JMK
4-Nitroaniline - BSD	EPA-8270	**207**	**6**	SQ1	20	150	10/30/2020	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**103**			20	150	10/30/2020	JMK

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CERTIFICATE OF ANALYSIS

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228 E. Champion St., Suite 101
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CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**102**	**1**		20	150	10/30/2020	JMK
Azobenzene - BS	EPA-8270	**127**			20	150	10/30/2020	JMK
Azobenzene - BSD	EPA-8270	**122**	**4**		20	150	10/30/2020	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**101**			20	150	10/30/2020	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**97.2**	**4**		20	150	10/30/2020	JMK
Hexachlorobenzene - BS	EPA-8270	**99.7**			20	150	10/30/2020	JMK
Hexachlorobenzene - BSD	EPA-8270	**95.1**	**5**		20	150	10/30/2020	JMK
Pentachlorophenol - BS	EPA-8270	**81.9**			41.3	113	10/30/2020	JMK
Pentachlorophenol - BSD	EPA-8270	**86.9**	**6**		41.3	113	10/30/2020	JMK
Phenanthrene - BS	EPA-8270	**98.6**			20	150	10/30/2020	JMK
Phenanthrene - BSD	EPA-8270	**92.4**	**6**		20	150	10/30/2020	JMK
Anthracene - BS	EPA-8270	**95.7**			20	150	10/30/2020	JMK
Anthracene - BSD	EPA-8270	**90.7**	**5**		20	150	10/30/2020	JMK
Carbazole - BS	EPA-8270	**121**			20	150	10/30/2020	JMK
Carbazole - BSD	EPA-8270	**113**	**7**		20	150	10/30/2020	JMK
Di-N-Butylphthalate - BS	EPA-8270	**102**			20	150	10/30/2020	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**93.4**	**9**		20	150	10/30/2020	JMK
Fluoranthene - BS	EPA-8270	**96.6**			20	150	10/30/2020	JMK
Fluoranthene - BSD	EPA-8270	**87.2**	**10**		20	150	10/30/2020	JMK
Pyrene - BS	EPA-8270	**92.5**			57.4	145	10/30/2020	JMK
Pyrene - BSD	EPA-8270	**84.6**	**9**		57.4	145	10/30/2020	JMK
Butylbenzylphthalate - BS	EPA-8270	**77.9**			20	150	10/30/2020	JMK
Butylbenzylphthalate - BSD	EPA-8270	**73.2**	**6**		20	150	10/30/2020	JMK
Benzo[A]Anthracene - BS	EPA-8270	**95.8**			20	150	10/30/2020	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**89.1**	**7**		20	150	10/30/2020	JMK
Chrysene - BS	EPA-8270	**94.1**			20	150	10/30/2020	JMK
Chrysene - BSD	EPA-8270	**86.8**	**8**		20	150	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**84.8**			20	150	10/30/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**79.0**	**7**		20	150	10/30/2020	JMK
Di-N-Octylphthalate - BS	EPA-8270	**89.5**			20	150	10/30/2020	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**84.1**	**6**		20	150	10/30/2020	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**96.5**			20	150	10/30/2020	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**87.9**	**9**		20	150	10/30/2020	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**103**			20	150	10/30/2020	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**94.8**	**8**		20	150	10/30/2020	JMK
Benzo[A]Pyrene - BS	EPA-8270	**95.2**			20	150	10/30/2020	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**89.5**	**6**		20	150	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**105**			20	150	10/30/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**98.3**	**6**		20	150	10/30/2020	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**107**			20	150	10/30/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dibenz[A,H]Anthracene - BSD	EPA-8270	**101**	**6**		20	150	10/30/2020	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**105**			20	150	10/30/2020	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**98.2**	**7**		20	150	10/30/2020	JMK

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: 159297 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**69.0**			20	150	11/05/2020	JMK
Pyridine - BSD	EPA-8270	**74.3**	**7**		20	150	11/05/2020	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**96.0**			20	150	11/05/2020	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**83.9**	**13**		20	150	11/05/2020	JMK
Phenol - BS	EPA-8270	**87.2**			36.1	131	11/05/2020	JMK
Phenol - BSD	EPA-8270	**84.0**	**4**		36.1	131	11/05/2020	JMK
Aniline - BS	EPA-8270	**57.7**			20	150	11/05/2020	JMK
Aniline - BSD	EPA-8270	**46.3**	**22**		20	150	11/05/2020	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**79.3**			20	150	11/05/2020	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**96.3**	**19**		20	150	11/05/2020	JMK
2-Chlorophenol - BS	EPA-8270	**85.4**			59.9	111	11/05/2020	JMK
2-Chlorophenol - BSD	EPA-8270	**82.6**	**3**		59.9	111	11/05/2020	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**79.4**			20	150	11/05/2020	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**80.3**	**1**		20	150	11/05/2020	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**80.6**			44.3	122	11/05/2020	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**79.8**	**1**		44.3	122	11/05/2020	JMK
Benzyl Alcohol - BS	EPA-8270	**93.7**			20	150	11/05/2020	JMK
Benzyl Alcohol - BSD	EPA-8270	**87.1**	**7**		20	150	11/05/2020	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**83.6**			20	150	11/05/2020	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**83.0**	**1**		20	150	11/05/2020	JMK
2-Methylphenol - BS	EPA-8270	**87.7**			20	150	11/05/2020	JMK
2-Methylphenol - BSD	EPA-8270	**84.4**	**4**		20	150	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**93.2**			20	150	11/05/2020	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**92.4**	**1**		20	150	11/05/2020	JMK
3&4-Methylphenol - BS	EPA-8270	**89.7**			20	150	11/05/2020	JMK
3&4-Methylphenol - BSD	EPA-8270	**85.1**	**5**		20	150	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**88.5**			31.6	134	11/05/2020	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**66.7**	**28**	SR1	31.6	134	11/05/2020	JMK
Hexachloroethane - BS	EPA-8270	**84.2**			20	150	11/05/2020	JMK
Hexachloroethane - BSD	EPA-8270	**83.8**	**1**		20	150	11/05/2020	JMK
Nitrobenzene - BS	EPA-8270	**89.8**			20	150	11/05/2020	JMK
Nitrobenzene - BSD	EPA-8270	**93.1**	**4**		20	150	11/05/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Isophorone - BS	EPA-8270	**82.5**			20	150	11/05/2020	JMK
Isophorone - BSD	EPA-8270	**84.6**	**2**		20	150	11/05/2020	JMK
2-Nitrophenol - BS	EPA-8270	**78.4**			20	150	11/05/2020	JMK
2-Nitrophenol - BSD	EPA-8270	**81.4**	**4**		20	150	11/05/2020	JMK
2,4-Dimethylphenol - BS	EPA-8270	**88.0**			20	150	11/05/2020	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**89.5**	**2**		20	150	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**90.4**			20	150	11/05/2020	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**92.3**	**2**		20	150	11/05/2020	JMK
2,4-Dichlorophenol - BS	EPA-8270	**89.1**			20	150	11/05/2020	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**90.8**	**2**		20	150	11/05/2020	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**83.9**			44.6	122	11/05/2020	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**87.5**	**4**		44.6	122	11/05/2020	JMK
Naphthalene - BS	EPA-8270	**87.5**			20	150	11/05/2020	JMK
Naphthalene - BSD	EPA-8270	**91.8**	**5**		20	150	11/05/2020	JMK
4-Chloroaniline - BS	EPA-8270	**56.1**			20	150	11/05/2020	JMK
4-Chloroaniline - BSD	EPA-8270	**73.6**	**27**		20	150	11/05/2020	JMK
Hexachlorobutadiene - BS	EPA-8270	**84.7**			20	150	11/05/2020	JMK
Hexachlorobutadiene - BSD	EPA-8270	**86.6**	**2**		20	150	11/05/2020	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**99.0**			49.2	135	11/05/2020	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**96.7**	**2**		49.2	135	11/05/2020	JMK
2-Methylnaphthalene - BS	EPA-8270	**88.0**			20	150	11/05/2020	JMK
2-Methylnaphthalene - BSD	EPA-8270	**90.8**	**3**		20	150	11/05/2020	JMK
1-Methylnaphthalene - BS	EPA-8270	**86.1**			20	150	11/05/2020	JMK
1-Methylnaphthalene - BSD	EPA-8270	**90.0**	**4**		20	150	11/05/2020	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**62.7**			20	150	11/05/2020	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**59.5**	**5**		20	150	11/05/2020	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**92.4**			20	150	11/05/2020	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**91.8**	**1**		20	150	11/05/2020	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**92.9**			20	150	11/05/2020	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**92.0**	**1**		20	150	11/05/2020	JMK
2-Chloronaphthalene - BS	EPA-8270	**91.4**			20	150	11/05/2020	JMK
2-Chloronaphthalene - BSD	EPA-8270	**93.6**	**2**		20	150	11/05/2020	JMK
2-Nitroaniline - BS	EPA-8270	**94.8**			20	150	11/05/2020	JMK
2-Nitroaniline - BSD	EPA-8270	**94.4**	**0**		20	150	11/05/2020	JMK
Acenaphthylene - BS	EPA-8270	**78.2**			20	150	11/05/2020	JMK
Acenaphthylene - BSD	EPA-8270	**81.7**	**4**		20	150	11/05/2020	JMK
Dimethylphthalate - BS	EPA-8270	**95.0**			20	150	11/05/2020	JMK
Dimethylphthalate - BSD	EPA-8270	**99.8**	**5**		20	150	11/05/2020	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**96.0**			20	150	11/05/2020	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**97.2**	**1**		20	150	11/05/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Acenaphthene - BS	EPA-8270	**85.0**			49.3	117	11/05/2020	JMK
Acenaphthene - BSD	EPA-8270	**87.6**	**3**		49.3	117	11/05/2020	JMK
3-Nitroaniline - BS	EPA-8270	**122**			20	150	11/05/2020	JMK
3-Nitroaniline - BSD	EPA-8270	**133**	**9**		20	150	11/05/2020	JMK
2,4-Dinitrophenol - BS	EPA-8270	**109**			20	150	11/05/2020	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**107**	**2**		20	150	11/05/2020	JMK
4-Nitrophenol - BS	EPA-8270	**73.9**			29.8	137	11/05/2020	JMK
4-Nitrophenol - BSD	EPA-8270	**71.7**	**3**		29.8	137	11/05/2020	JMK
Dibenzofuran - BS	EPA-8270	**88.4**			20	150	11/05/2020	JMK
Dibenzofuran - BSD	EPA-8270	**96.3**	**9**		20	150	11/05/2020	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**93.5**			55.3	130	11/05/2020	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**95.5**	**2**		55.3	130	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**88.7**			20	150	11/05/2020	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**90.8**	**2**		20	150	11/05/2020	JMK
Diethylphthalate - BS	EPA-8270	**98.1**			20	150	11/05/2020	JMK
Diethylphthalate - BSD	EPA-8270	**104**	**6**		20	150	11/05/2020	JMK
Fluorene - BS	EPA-8270	**95.2**			20	150	11/05/2020	JMK
Fluorene - BSD	EPA-8270	**98.6**	**4**		20	150	11/05/2020	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**90.2**			20	150	11/05/2020	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**92.5**	**3**		20	150	11/05/2020	JMK
4-Nitroaniline - BS	EPA-8270	**174**		SQ1	20	150	11/05/2020	JMK
4-Nitroaniline - BSD	EPA-8270	**164**	**6**	DUP05	20	150	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**113**			20	150	11/05/2020	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**115**	**2**		20	150	11/05/2020	JMK
Azobenzene - BS	EPA-8270	**103**			20	150	11/05/2020	JMK
Azobenzene - BSD	EPA-8270	**108**	**5**		20	150	11/05/2020	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**95.4**			20	150	11/05/2020	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**97.0**	**2**		20	150	11/05/2020	JMK
Hexachlorobenzene - BS	EPA-8270	**98.3**			20	150	11/05/2020	JMK
Hexachlorobenzene - BSD	EPA-8270	**100**	**2**		20	150	11/05/2020	JMK
Pentachlorophenol - BS	EPA-8270	**85.4**			41.3	113	11/05/2020	JMK
Pentachlorophenol - BSD	EPA-8270	**88.0**	**3**		41.3	113	11/05/2020	JMK
Phenanthrene - BS	EPA-8270	**82.9**			20	150	11/05/2020	JMK
Phenanthrene - BSD	EPA-8270	**93.1**	**12**		20	150	11/05/2020	JMK
Anthracene - BS	EPA-8270	**81.2**			20	150	11/05/2020	JMK
Anthracene - BSD	EPA-8270	**94.2**	**15**		20	150	11/05/2020	JMK
Carbazole - BS	EPA-8270	**96.7**			20	150	11/05/2020	JMK
Carbazole - BSD	EPA-8270	**94.2**	**3**		20	150	11/05/2020	JMK
Di-N-Butylphthalate - BS	EPA-8270	**75.2**			20	150	11/05/2020	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**88.5**	**16**		20	150	11/05/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS SDG#: WDOE ACCREDITATION:	11/13/2020 EV20100187 C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Fluoranthene - BS	EPA-8270	**79.5**			20	150	11/05/2020	JMK
Fluoranthene - BSD	EPA-8270	**92.8**	**15**		20	150	11/05/2020	JMK
Pyrene - BS	EPA-8270	**87.3**			57.4	145	11/05/2020	JMK
Pyrene - BSD	EPA-8270	**95.5**	**9**		57.4	145	11/05/2020	JMK
Butylbenzylphthalate - BS	EPA-8270	**96.4**			20	150	11/05/2020	JMK
Butylbenzylphthalate - BSD	EPA-8270	**101**	**4**		20	150	11/05/2020	JMK
Benzo[A]Anthracene - BS	EPA-8270	**92.0**			20	150	11/05/2020	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**95.2**	**3**		20	150	11/05/2020	JMK
Chrysene - BS	EPA-8270	**91.5**			20	150	11/05/2020	JMK
Chrysene - BSD	EPA-8270	**93.3**	**2**		20	150	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**96.4**			20	150	11/05/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**102**	**5**		20	150	11/05/2020	JMK
Di-N-Octylphthalate - BS	EPA-8270	**93.9**			20	150	11/05/2020	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**96.8**	**3**		20	150	11/05/2020	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**92.4**			20	150	11/05/2020	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**95.2**	**3**		20	150	11/05/2020	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**93.1**			20	150	11/05/2020	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**98.5**	**6**		20	150	11/05/2020	JMK
Benzo[A]Pyrene - BS	EPA-8270	**91.4**			20	150	11/05/2020	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**94.6**	**3**		20	150	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**91.3**			20	150	11/05/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**96.2**	**5**		20	150	11/05/2020	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**91.5**			20	150	11/05/2020	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**96.2**	**5**		20	150	11/05/2020	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**91.3**			20	150	11/05/2020	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**101**	**10**		20	150	11/05/2020	JMK

DUP05 - LCS/LCSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.
SR1 - RPD outside of control limits.

ALS Test Batch ID: R372553 - Soil by EPA-7196

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BS	EPA-7196	**103**			91	114	11/04/2020	RAL
Chromium (VI) - BSD	EPA-7196	**104**	**1**		91	114	11/04/2020	RAL

ALS Test Batch ID: R372556 - Soil by EPA-7196

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BS	EPA-7196	**100**			91	114	11/06/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BSD	EPA-7196	**102**	**2**		91	114	11/06/2020	RAL

ALS Test Batch ID: R372557 - Soil by EPA-7196

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BS	EPA-7196	**91.0**			91	114	11/12/2020	EBS
Chromium (VI) - BSD	EPA-7196	**93.0**	**2**		91	114	11/12/2020	EBS

ALS Test Batch ID: R371897 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**107**			81.8	117	11/02/2020	RAL
Mercury - BSD	EPA-7471	**106**	**0**		81.8	117	11/02/2020	RAL

ALS Test Batch ID: R372558 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**106**			81.8	117	11/04/2020	RAL
Mercury - BSD	EPA-7471	**108**	**1**		81.8	117	11/04/2020	RAL

ALS Test Batch ID: 159186 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**95.5**			80	120	11/02/2020	RAL
Arsenic - BSD	EPA-6020	**95.6**	**0**		80	120	11/02/2020	RAL
Barium - BS	EPA-6020	**97.0**			80	120	11/02/2020	RAL
Barium - BSD	EPA-6020	**97.1**	**0**		80	120	11/02/2020	RAL
Cadmium - BS	EPA-6020	**101**			80	120	11/02/2020	RAL
Cadmium - BSD	EPA-6020	**101**	**1**		80	120	11/02/2020	RAL
Chromium - BS	EPA-6020	**97.1**			80	120	11/02/2020	RAL
Chromium - BSD	EPA-6020	**96.8**	**0**		80	120	11/02/2020	RAL
Lead - BS	EPA-6020	**93.6**			80	120	11/02/2020	RAL
Lead - BSD	EPA-6020	**94.5**	**1**		80	120	11/02/2020	RAL
Selenium - BS	EPA-6020	**97.0**			80	120	11/02/2020	RAL
Selenium - BSD	EPA-6020	**97.7**	**1**		80	120	11/02/2020	RAL
Silver - BS	EPA-6020	**102**			80	120	11/02/2020	RAL
Silver - BSD	EPA-6020	**103**	**1**		80	120	11/02/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/13/2020
		ALS SDG#:	EV20100187
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 159360 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**103**			80	120	11/05/2020	RAL
Arsenic - BSD	EPA-6020	**103**	**0**		80	120	11/05/2020	RAL
Barium - BS	EPA-6020	**105**			80	120	11/05/2020	RAL
Barium - BSD	EPA-6020	**106**	**1**		80	120	11/05/2020	RAL
Cadmium - BS	EPA-6020	**108**			80	120	11/05/2020	RAL
Cadmium - BSD	EPA-6020	**109**	**1**		80	120	11/05/2020	RAL
Chromium - BS	EPA-6020	**105**			80	120	11/05/2020	RAL
Chromium - BSD	EPA-6020	**105**	**0**		80	120	11/05/2020	RAL
Lead - BS	EPA-6020	**101**			80	120	11/05/2020	RAL
Lead - BSD	EPA-6020	**101**	**0**		80	120	11/05/2020	RAL
Selenium - BS	EPA-6020	**105**			80	120	11/05/2020	RAL
Selenium - BSD	EPA-6020	**104**	**1**		80	120	11/05/2020	RAL
Silver - BS	EPA-6020	**107**			80	120	11/05/2020	RAL
Silver - BSD	EPA-6020	**108**	**0**		80	120	11/05/2020	RAL

APPROVED BY

Laboratory Manager

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV20100187

Date 10/30/20 Page 1 Of 2

PROJECT ID: Brown & Caldwell ph. III - Mckenzie
REPORT TO COMPANY: Whatcom Env. Svcs
PROJECT MANAGER: Thom - Harold
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 P.O. #:
E-MAIL: tdavis@whatcom-es.com
INVOICE TO COMPANY: Same
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8260 ☒	BTEX by EPA 8021 ☐	MTBE by EPA 8260 ☒	MTBE by EPA 8021 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☒	Pri Pol ☐	TAL ☐	Metals Other (Specify)	TCLP-Metals ☐	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	Volatile organics (8260)	Hexchrome Cr3	NwTPH-Dx w/ Silica Gel	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. B-9 7.5ft ('20)	10/27/20	1045A	Soil	1		X	X	X		X						X				X										X	X		4	
2. B-9 10ft ('20)		1055A		2		X	X	X		X						X				X										X	X		4	
3. B-10 5ft ('20)		12pm		3		X	X	X		X						X				X										X	X		4	
4. B-10 11.5ft ('20)		1210P		4		X	X	X		X						X				X										X	X		4	
5. B-2 4ft ('20)		130P		5		X	X	X		X						X				X										X	X		4	
6. B-2 9ft ('20)		140P		6		X	X	X		X						X				X										X	X		4	
7. B-8 5ft ('20)		410P		7		X	X	X		X						X				X										X	X		4	
8. B-8 9ft ('20)		420P		8		X	X	X		X						X				X										X	X		4	
* 9. B-1 28.5ft ('20)	10/28/20	1030A		9		X	X	X		X						X				X										X	X	X	4	
* 10. B-1 35.5ft ('20)	10/28/20	1040A		10		X	X	X		X						X				X										X	X	X	4	

* - w/ Silica Gel Cleanup for Dx Analysis

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 10/30/20 930A
Received By: ALS 10-30-20 1014
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV20100187

Date 10/30/20 Page #2 Of 2

PROJECT ID: Brown & Caldwell ph. III - McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs.
PROJECT MANAGER: Thom - Harold
ADDRESS: 228 E. Champion #101
Bham, WA 98225
PHONE: 752-9571 P.O. #:
E-MAIL: tdavis@whatcom-es.com
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8260 ☒	BTEX by EPA 8021 ☐	MTBE by EPA 8260 ☒	MTBE by EPA 8021 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐ Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐ RCRA-8 ☒ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	Volatile Organics (8260)	Hexchrome Cr3			NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. B-3 12.5ft ('20)	10/29/20	140p	Soil	11		X	X	X		X						X			X			X	X	X			4	
2. B-3 19ft ('20)	↓	150p	↓	12		X	X	X		X						X			X			X	X	X			4	
3. B-7 13ft ('20)		420p		13		X	X	X		X						X			X			X	X	X			4	
4. B-7 19ft ('20)		430p		14		X	X	X		X						X			X			X	X	X			4	
5. MW-13 8to9ft		6pm		15		X	X	X		X						X			X			X	X	X			4	
6. B-4 5ft ('20)	10/29/20	1010A		16		X	X	X		X						X			X			X	X	X			4	
7. B-4 10ft ('20)		1020A		17		X	X	X		X						X			X			X	X	X			4	
8. B-5 9ft ('20)		1220p		18		X	X	X		X						X			X			X	X	X			4	
9. B-5 11.5ft ('20)		1230p		19		X	X	X		X						X			X			X	X	X			4	
10. B-6 9ft ('20		245p		20		X	X	X		X						X			X			X	X	X			4	
11. B-6 11.5ft ('20)	↓	255p	↓	21		X		X		X						X			X			X	X	X			4	

SPECIAL INSTRUCTIONS

SIGNATURES (~~Name, Company, Date~~, Time):

1. Relinquished By: WES 10/30/20 930A
   Received By: ALS 10-30-20 1014
2. Relinquished By: _____
   Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER: Specify: _____

*Turnaround request less than standard may incur Rush Charges

November 24, 2020

Mr. Thom Davis
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Davis,

On November 12th, 7 samples were received by our laboratory and assigned our laboratory project number EV20110060. The project was identified as your Brown & Caldwell Ph. III - McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Manager

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ALS Group USA, Corp dba ALS Environmental

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:10:00 AM
CLIENT SAMPLE ID	TP-5-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/12/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:10:00 AM
CLIENT SAMPLE ID	TP-5-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:10:00 AM
CLIENT SAMPLE ID	TP-5-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:10:00 AM
CLIENT SAMPLE ID	TP-5-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.038**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**48**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**3.3**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**51**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	**0.11**	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**48**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**2.5**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:10:00 AM
CLIENT SAMPLE ID	TP-5-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**111**	11/12/2020	KLS
C25	NWTPH-DX	**86.3**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**108**	11/13/2020	DLC
Toluene-d8	EPA-8260	**101**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**124 SQ2**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**92.2**	11/18/2020	JMK
Phenol-d5	EPA-8270	**89.8**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**92.1**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**95.1**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**90.5**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**92.0**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
SQ2 - Spike outside of control limits due to matrix effect.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:25:00 AM
CLIENT SAMPLE ID	TP-3-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/12/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	**14**	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:25:00 AM
CLIENT SAMPLE ID	TP-3-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/24/2020
		ALS JOB#:	EV20110060
		ALS SAMPLE#:	EV20110060-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:25:00 AM
CLIENT SAMPLE ID	TP-3-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:25:00 AM
CLIENT SAMPLE ID	TP-3-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.031**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**34**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**3.5**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**41**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**34**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**2.3**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**120**	11/12/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:25:00 AM
CLIENT SAMPLE ID	TP-3-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**91.5**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**98.7**	11/13/2020	DLC
Toluene-d8	EPA-8260	**86.3**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**95.4**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**91.6**	11/18/2020	JMK
Phenol-d5	EPA-8270	**89.4**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**94.1**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**96.1**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**94.4**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**99.3**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:35:00 AM
CLIENT SAMPLE ID	TP-4-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/12/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/16/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/16/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:35:00 AM
CLIENT SAMPLE ID	TP-4-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/16/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/16/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/16/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/16/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/24/2020
		ALS JOB#:	EV20110060
		ALS SAMPLE#:	EV20110060-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:35:00 AM
CLIENT SAMPLE ID	TP-4-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:35:00 AM
CLIENT SAMPLE ID	TP-4-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.032**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**32**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**3.8**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**47**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	**0.10**	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**32**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**2.4**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**111**	11/12/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 11:35:00 AM
CLIENT SAMPLE ID	TP-4-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**100**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**98.5**	11/16/2020	DLC
Toluene-d8	EPA-8260	**88.2**	11/16/2020	DLC
4-Bromofluorobenzene	EPA-8260	**94.2**	11/16/2020	DLC
2-Fluorophenol	EPA-8270	**90.3**	11/18/2020	JMK
Phenol-d5	EPA-8270	**87.2**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**93.0**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**92.4**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**91.3**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**96.1**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:20:00 PM
CLIENT SAMPLE ID	TP-6-20 4.75ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/12/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	**11**	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:20:00 PM
CLIENT SAMPLE ID	TP-6-20 4.75ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:20:00 PM
CLIENT SAMPLE ID	TP-6-20 4.75ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:20:00 PM
CLIENT SAMPLE ID	TP-6-20 4.75ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.038**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**47**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**4.8**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**94**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	**0.12**	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**47**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**4.5**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**105**	11/12/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:20:00 PM
CLIENT SAMPLE ID	TP-6-20 4.75ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**94.3**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**109**	11/13/2020	DLC
Toluene-d8	EPA-8260	**87.2**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**98.1**	11/18/2020	JMK
Phenol-d5	EPA-8270	**96.6**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**100**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**101**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**100**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**108**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:40:00 PM
CLIENT SAMPLE ID	TP-2-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/13/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	**12**	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:40:00 PM
CLIENT SAMPLE ID	TP-2-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:40:00 PM
CLIENT SAMPLE ID	TP-2-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:40:00 PM
CLIENT SAMPLE ID	TP-2-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.033**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**38**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**2.4**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**51**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**38**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**2.6**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**113**	11/13/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 1:40:00 PM
CLIENT SAMPLE ID	TP-2-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**89.9**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**105**	11/13/2020	DLC
Toluene-d8	EPA-8260	**105**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**129 SQ2**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**92.1**	11/18/2020	JMK
Phenol-d5	EPA-8270	**89.5**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**93.9**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**97.8**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**95.3**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**98.1**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
SQ2 - Spike outside of control limits due to matrix effect.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 3:30:00 PM
CLIENT SAMPLE ID	TP-1-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/13/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	11/16/2020	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	11/16/2020	JNF
Dichlorodifluoromethane	EPA-8260	**13**	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 3:30:00 PM
CLIENT SAMPLE ID	TP-1-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 3:30:00 PM
CLIENT SAMPLE ID	TP-1-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 3:30:00 PM
CLIENT SAMPLE ID	TP-1-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.038**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**37**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**5.3**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**72**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**37**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**3.6**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	U	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**109**	11/13/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 3:30:00 PM
CLIENT SAMPLE ID	TP-1-20 5ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**108**	11/16/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**103**	11/13/2020	DLC
Toluene-d8	EPA-8260	**87.4**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**99.8**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**89.7**	11/18/2020	JMK
Phenol-d5	EPA-8270	**85.9**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**91.6**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**93.1**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**92.0**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**93.7**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 4:00:00 PM
CLIENT SAMPLE ID	TP-7-20 2ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	11/13/2020	KLS
TPH-Diesel Range	NWTPH-DX	**550**	250	10	MG/KG	11/23/2020	JNF
TPH-Oil Range	NWTPH-DX	**1200**	500	10	MG/KG	11/23/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Acetone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
Toluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 4:00:00 PM
CLIENT SAMPLE ID	TP-7-20 2ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	11/13/2020	DLC
Styrene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	11/13/2020	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Phenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Aniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 4:00:00 PM
CLIENT SAMPLE ID	TP-7-20 2ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 4:00:00 PM
CLIENT SAMPLE ID	TP-7-20 2ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	11/18/2020	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	11/18/2020	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	11/19/2020	RAL
Mercury	EPA-7471	**0.072**	0.020	1	MG/KG	11/17/2020	RAL
Chromium (III)	Calc-Cr3	**130**	0.50	1	MG/KG	11/16/2020	RAL
Arsenic	EPA-6020	**29**	0.20	1	MG/KG	11/16/2020	RAL
Barium	EPA-6020	**11**	0.10	1	MG/KG	11/16/2020	RAL
Cadmium	EPA-6020	**0.32**	0.10	1	MG/KG	11/16/2020	RAL
Chromium	EPA-6020	**130**	0.10	1	MG/KG	11/16/2020	RAL
Lead	EPA-6020	**160**	0.10	1	MG/KG	11/16/2020	RAL
Selenium	EPA-6020	U	1.0	1	MG/KG	11/16/2020	RAL
Silver	EPA-6020	**1.0**	0.10	1	MG/KG	11/16/2020	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	11/13/2020	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	11/24/2020 EV20110060 EV20110060-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/12/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	11/10/2020 4:00:00 PM
CLIENT SAMPLE ID	TP-7-20 2ft	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 10X Dilution	NWTPH-DX	**108**	11/23/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**109**	11/13/2020	DLC
Toluene-d8	EPA-8260	**93.0**	11/13/2020	DLC
4-Bromofluorobenzene	EPA-8260	**106**	11/13/2020	DLC
2-Fluorophenol	EPA-8270	**111**	11/18/2020	JMK
Phenol-d5	EPA-8270	**111**	11/18/2020	JMK
Nitrobenzene-d5	EPA-8270	**110**	11/18/2020	JMK
2-Fluorobiphenyl	EPA-8270	**115**	11/18/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**122**	11/18/2020	JMK
Terphenyl-d14	EPA-8270	**104**	11/18/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains light oil/lube oil.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/24/2020
		ALS SDG#:	EV20110060
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBG-111220S - Batch 159557 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	11/12/2020	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111220S - Batch 159638 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	11/13/2020	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	11/13/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111320S - Batch 159808 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Chloromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Bromomethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Chloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Carbon Tetrachloride	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Acetone	EPA-8260	U	UG/KG	50	11/13/2020	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	11/13/2020	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	11/13/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
2-Butanone	EPA-8260	U	UG/KG	50	11/13/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Chloroform	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Benzene	EPA-8260	U	UG/KG	5.0	11/13/2020	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225
CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

DATE: 11/24/2020
ALS SDG#: EV20110060
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-111320S - Batch 159808 - Soil by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	11/13/2020	DLC
Toluene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	11/13/2020	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	11/13/2020	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	11/13/2020	DLC
Styrene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
o-Xylene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Bromoform	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	11/13/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
Naphthalene	EPA-8260	U	UG/KG	10	11/13/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	11/13/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	11/24/2020
		ALS SDG#:	EV20110060
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-111320S - Batch 159808 - Soil by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111720S - Batch 159871 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	11/18/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Phenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Aniline	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	11/18/2020	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	11/18/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	11/18/2020	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	11/18/2020	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Isophorone	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzoic Acid	EPA-8270	U	UG/KG	1000	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	11/18/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	11/18/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Naphthalene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	11/18/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	11/18/2020	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	11/18/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	11/18/2020	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	11/18/2020	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	11/18/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	11/18/2020	JMK

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LABORATORY BLANK RESULTS

MB-111720S - Batch 159871 - Soil by EPA-8270

Dimethylphthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	11/18/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Fluorene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	11/18/2020	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	11/18/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Azobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	11/18/2020	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Anthracene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Carbazole	EPA-8270	U	UG/KG	250	11/18/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Pyrene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	11/18/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Chrysene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	11/18/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	11/18/2020	JMK

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CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBLK-R373184 - Batch R373184 - Soil by EPA-7196

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (VI)	EPA-7196	U	MG/KG	5.0	11/19/2020	RAL

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MBLK-R372938 - Batch R372938 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	11/17/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-111620S - Batch 159720 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	11/16/2020	RAL
Barium	EPA-6020	U	MG/KG	0.12	11/16/2020	RAL
Cadmium	EPA-6020	U	MG/KG	0.10	11/16/2020	RAL
Chromium	EPA-6020	U	MG/KG	0.10	11/16/2020	RAL
Lead	EPA-6020	U	MG/KG	0.10	11/16/2020	RAL
Selenium	EPA-6020	U	MG/KG	1.0	11/16/2020	RAL
Silver	EPA-6020	U	MG/KG	0.10	11/16/2020	RAL

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LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 159557 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**106**			66.5	122.7	11/12/2020	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**112**	**6**		66.5	122.7	11/12/2020	KLS

ALS Test Batch ID: 159638 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**107**			75.5	122.1	11/13/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**108**	**1**		75.5	122.1	11/13/2020	JNF

ALS Test Batch ID: 159808 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**84.7**			50	150	11/13/2020	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**83.3**	**2**		50	150	11/13/2020	DLC
Chloromethane - BS	EPA-8260	**129**			50	150	11/13/2020	DLC
Chloromethane - BSD	EPA-8260	**119**	**9**		50	150	11/13/2020	DLC
Vinyl Chloride - BS	EPA-8260	**109**			50	150	11/13/2020	DLC
Vinyl Chloride - BSD	EPA-8260	**102**	**6**		50	150	11/13/2020	DLC
Bromomethane - BS	EPA-8260	**108**			50	150	11/13/2020	DLC
Bromomethane - BSD	EPA-8260	**99.9**	**8**		50	150	11/13/2020	DLC
Chloroethane - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
Chloroethane - BSD	EPA-8260	**93.7**	**9**		50	150	11/13/2020	DLC
Carbon Tetrachloride - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
Carbon Tetrachloride - BSD	EPA-8260	**97.1**	**6**		50	150	11/13/2020	DLC
Trichlorofluoromethane - BS	EPA-8260	**106**			50	150	11/13/2020	DLC
Trichlorofluoromethane - BSD	EPA-8260	**101**	**5**		50	150	11/13/2020	DLC
Carbon Disulfide - BS	EPA-8260	**104**			50	150	11/13/2020	DLC
Carbon Disulfide - BSD	EPA-8260	**99.8**	**4**		50	150	11/13/2020	DLC
Acetone - BS	EPA-8260	**227**		SQ1	50	150	11/13/2020	DLC
Acetone - BSD	EPA-8260	**169**	**29**	SQ1	50	150	11/13/2020	DLC
1,1-Dichloroethene - BS	EPA-8260	**107**			70	130	11/13/2020	DLC
1,1-Dichloroethene - BSD	EPA-8260	**101**	**6**		70	130	11/13/2020	DLC
Methylene Chloride - BS	EPA-8260	**98.8**			50	150	11/13/2020	DLC
Methylene Chloride - BSD	EPA-8260	**84.6**	**15**		50	150	11/13/2020	DLC
Acrylonitrile - BS	EPA-8260	**108**			50	150	11/13/2020	DLC
Acrylonitrile - BSD	EPA-8260	**101**	**6**		50	150	11/13/2020	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**104**			50	150	11/13/2020	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**94.2**	**10**		50	150	11/13/2020	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC

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CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Trans-1,2-Dichloroethene - BSD	EPA-8260	**102**	**2**		50	150	11/13/2020	DLC
1,1-Dichloroethane - BS	EPA-8260	**101**			50	150	11/13/2020	DLC
1,1-Dichloroethane - BSD	EPA-8260	**96.2**	**5**		50	150	11/13/2020	DLC
2-Butanone - BS	EPA-8260	**140**			50	150	11/13/2020	DLC
2-Butanone - BSD	EPA-8260	**113**	**21**		50	150	11/13/2020	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**99.0**	**6**		50	150	11/13/2020	DLC
2,2-Dichloropropane - BS	EPA-8260	**106**			50	150	11/13/2020	DLC
2,2-Dichloropropane - BSD	EPA-8260	**99.7**	**6**		50	150	11/13/2020	DLC
Bromochloromethane - BS	EPA-8260	**100**			50	150	11/13/2020	DLC
Bromochloromethane - BSD	EPA-8260	**88.9**	**12**		50	150	11/13/2020	DLC
Chloroform - BS	EPA-8260	**117**			50	150	11/13/2020	DLC
Chloroform - BSD	EPA-8260	**108**	**8**		50	150	11/13/2020	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**97.8**	**5**		50	150	11/13/2020	DLC
1,1-Dichloropropene - BS	EPA-8260	**100**			50	150	11/13/2020	DLC
1,1-Dichloropropene - BSD	EPA-8260	**95.0**	**5**		50	150	11/13/2020	DLC
1,2-Dichloroethane - BS	EPA-8260	**116**			50	150	11/13/2020	DLC
1,2-Dichloroethane - BSD	EPA-8260	**114**	**2**		50	150	11/13/2020	DLC
Benzene - BS	EPA-8260	**120**			75	138	11/13/2020	DLC
Benzene - BSD	EPA-8260	**117**	**2**		75	138	11/13/2020	DLC
Trichloroethene - BS	EPA-8260	**108**			75	136	11/13/2020	DLC
Trichloroethene - BSD	EPA-8260	**104**	**4**		75	136	11/13/2020	DLC
1,2-Dichloropropane - BS	EPA-8260	**104**			50	150	11/13/2020	DLC
1,2-Dichloropropane - BSD	EPA-8260	**105**	**1**		50	150	11/13/2020	DLC
Dibromomethane - BS	EPA-8260	**105**			50	150	11/13/2020	DLC
Dibromomethane - BSD	EPA-8260	**99.6**	**5**		50	150	11/13/2020	DLC
Bromodichloromethane - BS	EPA-8260	**108**			50	150	11/13/2020	DLC
Bromodichloromethane - BSD	EPA-8260	**105**	**2**		50	150	11/13/2020	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**113**			50	150	11/13/2020	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**115**	**2**		50	150	11/13/2020	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**109**			50	150	11/13/2020	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**99.2**	**9**		50	150	11/13/2020	DLC
Toluene - BS	EPA-8260	**105**			71.6	122.1	11/13/2020	DLC
Toluene - BSD	EPA-8260	**105**	**0**		71.6	122.1	11/13/2020	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**109**			50	150	11/13/2020	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**104**	**5**		50	150	11/13/2020	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**108**			50	150	11/13/2020	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**104**	**4**		50	150	11/13/2020	DLC
2-Hexanone - BS	EPA-8260	**138**			50	150	11/13/2020	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Hexanone - BSD	EPA-8260	**116**	**17**		50	150	11/13/2020	DLC
1,3-Dichloropropane - BS	EPA-8260	**113**			50	150	11/13/2020	DLC
1,3-Dichloropropane - BSD	EPA-8260	**110**	**2**		50	150	11/13/2020	DLC
Tetrachloroethylene - BS	EPA-8260	**112**			50	150	11/13/2020	DLC
Tetrachloroethylene - BSD	EPA-8260	**113**	**1**		50	150	11/13/2020	DLC
Dibromochloromethane - BS	EPA-8260	**112**			50	150	11/13/2020	DLC
Dibromochloromethane - BSD	EPA-8260	**115**	**2**		50	150	11/13/2020	DLC
1,2-Dibromoethane - BS	EPA-8260	**112**			50	150	11/13/2020	DLC
1,2-Dibromoethane - BSD	EPA-8260	**111**	**1**		50	150	11/13/2020	DLC
Chlorobenzene - BS	EPA-8260	**99.3**			79	128	11/13/2020	DLC
Chlorobenzene - BSD	EPA-8260	**101**	**2**		79	128	11/13/2020	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**109**			50	150	11/13/2020	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**108**	**1**		50	150	11/13/2020	DLC
Ethylbenzene - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
Ethylbenzene - BSD	EPA-8260	**106**	**3**		50	150	11/13/2020	DLC
m,p-Xylene - BS	EPA-8260	**107**			50	150	11/13/2020	DLC
m,p-Xylene - BSD	EPA-8260	**109**	**1**		50	150	11/13/2020	DLC
Styrene - BS	EPA-8260	**108**			50	150	11/13/2020	DLC
Styrene - BSD	EPA-8260	**113**	**4**		50	150	11/13/2020	DLC
o-Xylene - BS	EPA-8260	**109**			50	150	11/13/2020	DLC
o-Xylene - BSD	EPA-8260	**112**	**2**		50	150	11/13/2020	DLC
Bromoform - BS	EPA-8260	**113**			50	150	11/13/2020	DLC
Bromoform - BSD	EPA-8260	**111**	**2**		50	150	11/13/2020	DLC
Isopropylbenzene - BS	EPA-8260	**113**			50	150	11/13/2020	DLC
Isopropylbenzene - BSD	EPA-8260	**114**	**1**		50	150	11/13/2020	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**97.8**			50	150	11/13/2020	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**94.9**	**3**		50	150	11/13/2020	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**97.7**			50	150	11/13/2020	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**90.9**	**7**		50	150	11/13/2020	DLC
Bromobenzene - BS	EPA-8260	**95.3**			50	150	11/13/2020	DLC
Bromobenzene - BSD	EPA-8260	**98.4**	**3**		50	150	11/13/2020	DLC
N-Propyl Benzene - BS	EPA-8260	**97.7**			50	150	11/13/2020	DLC
N-Propyl Benzene - BSD	EPA-8260	**100**	**2**		50	150	11/13/2020	DLC
2-Chlorotoluene - BS	EPA-8260	**101**			50	150	11/13/2020	DLC
2-Chlorotoluene - BSD	EPA-8260	**103**	**2**		50	150	11/13/2020	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**99.5**			50	150	11/13/2020	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**101**	**1**		50	150	11/13/2020	DLC
4-Chlorotoluene - BS	EPA-8260	**99.7**			50	150	11/13/2020	DLC
4-Chlorotoluene - BSD	EPA-8260	**102**	**2**		50	150	11/13/2020	DLC
T-Butyl Benzene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC

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CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
T-Butyl Benzene - BSD	EPA-8260	**107**	**2**		50	150	11/13/2020	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**106**			50	150	11/13/2020	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**107**	**1**		50	150	11/13/2020	DLC
S-Butyl Benzene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC
S-Butyl Benzene - BSD	EPA-8260	**107**	**2**		50	150	11/13/2020	DLC
P-Isopropyltoluene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC
P-Isopropyltoluene - BSD	EPA-8260	**106**	**1**		50	150	11/13/2020	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**102**			50	150	11/13/2020	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**104**	**2**		50	150	11/13/2020	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**102**			50	150	11/13/2020	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**102**	**0**		50	150	11/13/2020	DLC
N-Butylbenzene - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
N-Butylbenzene - BSD	EPA-8260	**101**	**2**		50	150	11/13/2020	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**102**			50	150	11/13/2020	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**99.0**	**3**		50	150	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**99.0**			50	150	11/13/2020	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**91.3**	**8**		50	150	11/13/2020	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**105**			50	150	11/13/2020	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**105**	**0**		50	150	11/13/2020	DLC
Hexachlorobutadiene - BS	EPA-8260	**102**			50	150	11/13/2020	DLC
Hexachlorobutadiene - BSD	EPA-8260	**99.1**	**3**		50	150	11/13/2020	DLC
Naphthalene - BS	EPA-8260	**99.1**			50	150	11/13/2020	DLC
Naphthalene - BSD	EPA-8260	**96.9**	**2**		50	150	11/13/2020	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**103**			50	150	11/13/2020	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**106**	**3**		50	150	11/13/2020	DLC

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: 159871 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**79.4**			20	150	11/18/2020	JMK
Pyridine - BSD	EPA-8270	**81.8**	**3**		20	150	11/18/2020	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**117**			20	150	11/18/2020	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**125**	**6**		20	150	11/18/2020	JMK
Phenol - BS	EPA-8270	**86.1**			36.1	131	11/18/2020	JMK
Phenol - BSD	EPA-8270	**85.9**	**0**		36.1	131	11/18/2020	JMK
Aniline - BS	EPA-8270	**46.8**			20	150	11/18/2020	JMK
Aniline - BSD	EPA-8270	**46.0**	**2**		20	150	11/18/2020	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**80.6**			20	150	11/18/2020	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**73.5**	**9**		20	150	11/18/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Chlorophenol - BS	EPA-8270	**84.6**			59.9	111	11/18/2020	JMK
2-Chlorophenol - BSD	EPA-8270	**83.3**	**2**		59.9	111	11/18/2020	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**79.9**			20	150	11/18/2020	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**80.0**	**0**		20	150	11/18/2020	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**84.1**			44.3	122	11/18/2020	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**82.4**	**2**		44.3	122	11/18/2020	JMK
Benzyl Alcohol - BS	EPA-8270	**101**			20	150	11/18/2020	JMK
Benzyl Alcohol - BSD	EPA-8270	**102**	**1**		20	150	11/18/2020	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**85.2**			20	150	11/18/2020	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**84.8**	**0**		20	150	11/18/2020	JMK
2-Methylphenol - BS	EPA-8270	**88.3**			20	150	11/18/2020	JMK
2-Methylphenol - BSD	EPA-8270	**86.8**	**2**		20	150	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**97.7**			20	150	11/18/2020	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**96.0**	**2**		20	150	11/18/2020	JMK
3&4-Methylphenol - BS	EPA-8270	**90.1**			20	150	11/18/2020	JMK
3&4-Methylphenol - BSD	EPA-8270	**90.5**	**1**		20	150	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**83.3**			31.6	134	11/18/2020	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**91.7**	**10**		31.6	134	11/18/2020	JMK
Hexachloroethane - BS	EPA-8270	**91.2**			20	150	11/18/2020	JMK
Hexachloroethane - BSD	EPA-8270	**90.7**	**0**		20	150	11/18/2020	JMK
Nitrobenzene - BS	EPA-8270	**101**			20	150	11/18/2020	JMK
Nitrobenzene - BSD	EPA-8270	**99.5**	**1**		20	150	11/18/2020	JMK
Isophorone - BS	EPA-8270	**86.8**			20	150	11/18/2020	JMK
Isophorone - BSD	EPA-8270	**84.3**	**3**		20	150	11/18/2020	JMK
2-Nitrophenol - BS	EPA-8270	**80.3**			20	150	11/18/2020	JMK
2-Nitrophenol - BSD	EPA-8270	**79.5**	**1**		20	150	11/18/2020	JMK
2,4-Dimethylphenol - BS	EPA-8270	**85.6**			20	150	11/18/2020	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**79.8**	**7**		20	150	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**91.3**			20	150	11/18/2020	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**88.8**	**3**		20	150	11/18/2020	JMK
2,4-Dichlorophenol - BS	EPA-8270	**89.8**			20	150	11/18/2020	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**88.3**	**2**		20	150	11/18/2020	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**86.3**			44.6	122	11/18/2020	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**83.8**	**3**		44.6	122	11/18/2020	JMK
Naphthalene - BS	EPA-8270	**93.4**			20	150	11/18/2020	JMK
Naphthalene - BSD	EPA-8270	**90.1**	**4**		20	150	11/18/2020	JMK
4-Chloroaniline - BS	EPA-8270	**65.8**			20	150	11/18/2020	JMK
4-Chloroaniline - BSD	EPA-8270	**57.9**	**13**		20	150	11/18/2020	JMK
Hexachlorobutadiene - BS	EPA-8270	**91.3**			20	150	11/18/2020	JMK
Hexachlorobutadiene - BSD	EPA-8270	**88.6**	**3**		20	150	11/18/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Chloro-3-Methylphenol - BS	EPA-8270	**101**			49.2	135	11/18/2020	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**101**	**0**		49.2	135	11/18/2020	JMK
2-Methylnaphthalene - BS	EPA-8270	**92.0**			20	150	11/18/2020	JMK
2-Methylnaphthalene - BSD	EPA-8270	**89.9**	**2**		20	150	11/18/2020	JMK
1-Methylnaphthalene - BS	EPA-8270	**91.2**			20	150	11/18/2020	JMK
1-Methylnaphthalene - BSD	EPA-8270	**88.9**	**3**		20	150	11/18/2020	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**69.6**			20	150	11/18/2020	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**59.2**	**16**		20	150	11/18/2020	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**90.1**			20	150	11/18/2020	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**89.3**	**1**		20	150	11/18/2020	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**94.0**			20	150	11/18/2020	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**92.8**	**1**		20	150	11/18/2020	JMK
2-Chloronaphthalene - BS	EPA-8270	**96.9**			20	150	11/18/2020	JMK
2-Chloronaphthalene - BSD	EPA-8270	**95.9**	**1**		20	150	11/18/2020	JMK
2-Nitroaniline - BS	EPA-8270	**106**			20	150	11/18/2020	JMK
2-Nitroaniline - BSD	EPA-8270	**109**	**2**		20	150	11/18/2020	JMK
Acenaphthylene - BS	EPA-8270	**84.4**			20	150	11/18/2020	JMK
Acenaphthylene - BSD	EPA-8270	**82.6**	**2**		20	150	11/18/2020	JMK
Dimethylphthalate - BS	EPA-8270	**102**			20	150	11/18/2020	JMK
Dimethylphthalate - BSD	EPA-8270	**100**	**2**		20	150	11/18/2020	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**96.2**			20	150	11/18/2020	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**96.1**	**0**		20	150	11/18/2020	JMK
Acenaphthene - BS	EPA-8270	**92.1**			49.3	117	11/18/2020	JMK
Acenaphthene - BSD	EPA-8270	**90.7**	**1**		49.3	117	11/18/2020	JMK
3-Nitroaniline - BS	EPA-8270	**129**			20	150	11/18/2020	JMK
3-Nitroaniline - BSD	EPA-8270	**129**	**0**		20	150	11/18/2020	JMK
2,4-Dinitrophenol - BS	EPA-8270	**93.5**			20	150	11/18/2020	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**96.9**	**4**		20	150	11/18/2020	JMK
4-Nitrophenol - BS	EPA-8270	**71.3**			29.8	137	11/18/2020	JMK
4-Nitrophenol - BSD	EPA-8270	**74.1**	**4**		29.8	137	11/18/2020	JMK
Dibenzofuran - BS	EPA-8270	**101**			20	150	11/18/2020	JMK
Dibenzofuran - BSD	EPA-8270	**100**	**1**		20	150	11/18/2020	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**95.0**			55.3	130	11/18/2020	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**95.8**	**1**		55.3	130	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**90.7**			20	150	11/18/2020	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**90.3**	**0**		20	150	11/18/2020	JMK
Diethylphthalate - BS	EPA-8270	**109**			20	150	11/18/2020	JMK
Diethylphthalate - BSD	EPA-8270	**106**	**2**		20	150	11/18/2020	JMK
Fluorene - BS	EPA-8270	**104**			20	150	11/18/2020	JMK
Fluorene - BSD	EPA-8270	**104**	**0**		20	150	11/18/2020	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether - BS	EPA-8270	**95.1**			20	150	11/18/2020	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**95.0**	**0**		20	150	11/18/2020	JMK
4-Nitroaniline - BS	EPA-8270	**170**		SQ1	20	150	11/18/2020	JMK
4-Nitroaniline - BSD	EPA-8270	**198**	**15**	SQ1	20	150	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**102**			20	150	11/18/2020	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**103**	**1**		20	150	11/18/2020	JMK
Azobenzene - BS	EPA-8270	**120**			20	150	11/18/2020	JMK
Azobenzene - BSD	EPA-8270	**119**	**0**		20	150	11/18/2020	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**102**			20	150	11/18/2020	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**100**	**2**		20	150	11/18/2020	JMK
Hexachlorobenzene - BS	EPA-8270	**105**			20	150	11/18/2020	JMK
Hexachlorobenzene - BSD	EPA-8270	**103**	**2**		20	150	11/18/2020	JMK
Pentachlorophenol - BS	EPA-8270	**80.8**			41.3	113	11/18/2020	JMK
Pentachlorophenol - BSD	EPA-8270	**78.9**	**2**		41.3	113	11/18/2020	JMK
Phenanthrene - BS	EPA-8270	**99.2**			20	150	11/18/2020	JMK
Phenanthrene - BSD	EPA-8270	**97.9**	**1**		20	150	11/18/2020	JMK
Anthracene - BS	EPA-8270	**98.0**			20	150	11/18/2020	JMK
Anthracene - BSD	EPA-8270	**96.5**	**2**		20	150	11/18/2020	JMK
Carbazole - BS	EPA-8270	**105**			20	150	11/18/2020	JMK
Carbazole - BSD	EPA-8270	**112**	**7**		20	150	11/18/2020	JMK
Di-N-Butylphthalate - BS	EPA-8270	**100**			20	150	11/18/2020	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**97.5**	**3**		20	150	11/18/2020	JMK
Fluoranthene - BS	EPA-8270	**95.8**			20	150	11/18/2020	JMK
Fluoranthene - BSD	EPA-8270	**95.4**	**0**		20	150	11/18/2020	JMK
Pyrene - BS	EPA-8270	**88.0**			57.4	145	11/18/2020	JMK
Pyrene - BSD	EPA-8270	**85.5**	**3**		57.4	145	11/18/2020	JMK
Butylbenzylphthalate - BS	EPA-8270	**79.6**			20	150	11/18/2020	JMK
Butylbenzylphthalate - BSD	EPA-8270	**79.2**	**0**		20	150	11/18/2020	JMK
Benzo[A]Anthracene - BS	EPA-8270	**92.6**			20	150	11/18/2020	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**90.9**	**2**		20	150	11/18/2020	JMK
Chrysene - BS	EPA-8270	**91.2**			20	150	11/18/2020	JMK
Chrysene - BSD	EPA-8270	**90.3**	**1**		20	150	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**83.8**			20	150	11/18/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**82.7**	**1**		20	150	11/18/2020	JMK
Di-N-Octylphthalate - BS	EPA-8270	**87.6**			20	150	11/18/2020	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**86.9**	**1**		20	150	11/18/2020	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**91.6**			20	150	11/18/2020	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**88.8**	**3**		20	150	11/18/2020	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**96.3**			20	150	11/18/2020	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**96.3**	**0**		20	150	11/18/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 11/24/2020
ALS SDG#: EV20110060
WDOE ACCREDITATION: C601

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Pyrene - BS	EPA-8270	**94.4**			20	150	11/18/2020	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**93.7**	**1**		20	150	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**108**			20	150	11/18/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**108**	**0**		20	150	11/18/2020	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**112**			20	150	11/18/2020	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**112**	**0**		20	150	11/18/2020	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**110**			20	150	11/18/2020	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**108**	**2**		20	150	11/18/2020	JMK

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: R373184 - Soil by EPA-7196

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BS	EPA-7196	**100**			91	114	11/19/2020	RAL
Chromium (VI) - BSD	EPA-7196	**101**	**1**		91	114	11/19/2020	RAL

ALS Test Batch ID: R372938 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**106**			81.8	117	11/17/2020	RAL
Mercury - BSD	EPA-7471	**105**	**1**		81.8	117	11/17/2020	RAL

ALS Test Batch ID: 159720 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**95.3**			80	120	11/16/2020	RAL
Arsenic - BSD	EPA-6020	**97.4**	**2**		80	120	11/16/2020	RAL
Barium - BS	EPA-6020	**96.6**			80	120	11/16/2020	RAL
Barium - BSD	EPA-6020	**99.5**	**3**		80	120	11/16/2020	RAL
Cadmium - BS	EPA-6020	**100**			80	120	11/16/2020	RAL
Cadmium - BSD	EPA-6020	**104**	**3**		80	120	11/16/2020	RAL
Chromium - BS	EPA-6020	**95.1**			80	120	11/16/2020	RAL
Chromium - BSD	EPA-6020	**97.8**	**3**		80	120	11/16/2020	RAL
Lead - BS	EPA-6020	**94.5**			80	120	11/16/2020	RAL
Lead - BSD	EPA-6020	**96.2**	**2**		80	120	11/16/2020	RAL
Selenium - BS	EPA-6020	**95.9**			80	120	11/16/2020	RAL
Selenium - BSD	EPA-6020	**98.2**	**2**		80	120	11/16/2020	RAL
Silver - BS	EPA-6020	**100**			80	120	11/16/2020	RAL
Silver - BSD	EPA-6020	**104**	**4**		80	120	11/16/2020	RAL

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APPROVED BY

Laboratory Manager

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Everett, WA 98208
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV201100 60

Date 11/11/20 Page 1 Of 1

PROJECT ID: Brown? Caldwell Ph. III – McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs
PROJECT MANAGER: Thom – Harold.
ADDRESS: 228 E Champion St. #101
Bellingham, WA 98225
PHONE: 752-9571 FAX:
P.O. #: E-MAIL: tdavis@whatcom-es.com
INVOICE TO COMPANY: Same ?
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐ BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐ MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐ Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify): Volatile Organics via 8260		OTHER (Specify): Chromium VI	OTHER (Specify): Chromium III			NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. TP-5-2ϕ 5ft	11/10/20	1110A	Soil	1		X	X							X			X			X		X	X			4	
2. TP-3-2ϕ 5ft		1125A		2		X	X							X			X			X		X	X			4	
3. TP-4-2ϕ 5ft		1135A		3		X	X							X			X			X		X	X			4	
4. TP-6-2ϕ 4.75ft		1205P		4		X	X							X			X			X		X	X			4	
5. TP-2-2ϕ 5ft		1405P		5		X	X							X			X			X		X	X			4	
6. TP-1-2ϕ 5ft		1550P		6		X	X							X			X			X		X	X			4	
7. TP-7-2ϕ 2ft		4pm		7		X	X							X			X			X		X	X			4	
8.																											
9.																											
10.																				collected via 5035A							

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 11/11/20 @ 115pm
   Received By: Erin Pump ALS 11/12/20 3:25PM
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10 Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: (5 Standard) 3 1 SAME DAY

OTHER:
Specify:

*Turnaround request less than standard may incur Rush Charges

December 21, 2020

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

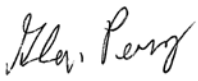
On December 7th, 1 sample was received by our laboratory and assigned our laboratory project number EV20120044. The project was identified as your Brown & Caldwell Ph. III - McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group



Glen Perry
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/21/2020
		ALS JOB#:	EV20120044
		ALS SAMPLE#:	EV20120044-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	12/07/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	10/28/2020 1:40:00 PM
CLIENT SAMPLE ID	B-3 12.5ft ('20)	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Chromium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	12/15/2020	RAL
Lead (TCLP)	EPA-6020/1311	**0.13**	0.031	6.25	MG/L	12/15/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/21/2020
		ALS SDG#:	EV20120044
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBLK-R375041 - Batch R375041 - TCLP Extract by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (TCLP)	EPA-6020/1311	U	MG/L	0.0050	12/15/2020	RAL
Lead (TCLP)	EPA-6020/1311	U	MG/L	0.0050	12/15/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/21/2020
		ALS SDG#:	EV20120044
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: R375041 - TCLP Extract by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (TCLP) - BS	EPA-6020/1311	**97.0**			86.2	107	12/15/2020	RAL
Chromium (TCLP) - BSD	EPA-6020/1311	**97.0**	**0**		86.2	107	12/15/2020	RAL
Lead (TCLP) - BS	EPA-6020/1311	**95.0**			87.5	107	12/15/2020	RAL
Lead (TCLP) - BSD	EPA-6020/1311	**97.0**	**2**		87.5	107	12/15/2020	RAL

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV20120044

Date 12/7/20 Page 1 Of 1

PROJECT ID:	Brown & Caldwell Phase II - McKenzie
REPORT TO COMPANY:	Whatcom Env. Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	338 E. Chamoien #101
	Bellingham WA 98225
PHONE:	360 757-9571 P.O. #:
E-MAIL:	
INVOICE TO COMPANY:	Same as above
ATTENTION:	
ADDRESS:	

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☐	Pri Pol ☐	TAL ☐	Metals Other (Specify)	TCLP-Metals ☒	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. B-3 12.5 ft (20)	10/29/20	1:40	soil	1																				X						Cr + Pb only		
2.																																
3.																																
4.																																
5.																																
6.																																
7.																																
8.																																
9.																																
10.																																

SPECIAL INSTRUCTIONS: EV20100187-11

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: WES 12/7/20 10:45
   Received By: 10/30/20 10:14 AM
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ☒ 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

July 15, 2021

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On July 9th, 2 samples were received by our laboratory and assigned our laboratory project number EV21070036. The project was identified as your Brown & Caldwell Ph. III - McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

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ALS Group USA, Corp dba ALS Environmental

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 3:30:00 PM
CLIENT SAMPLE ID	B-2-21 5-7.5 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/14/2021	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/12/2021	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Acetone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Toluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 3:30:00 PM
CLIENT SAMPLE ID	B-2-21 5-7.5 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Styrene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Phenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Aniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 3:30:00 PM
CLIENT SAMPLE ID	B-2-21 5-7.5 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 3:30:00 PM
CLIENT SAMPLE ID	B-2-21 5-7.5 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	07/13/2021	EBS
Mercury	EPA-7471	**0.034**	0.020	1	MG/KG	07/14/2021	RAL
Chromium (III)	Calc-Cr3	**46**	0.50	1	MG/KG	07/15/2021	AE
Arsenic	EPA-6020	**3.6**	0.20	1	MG/KG	07/09/2021	EBS
Barium	EPA-6020	**48**	0.10	1	MG/KG	07/09/2021	EBS
Cadmium	EPA-6020	U	0.10	1	MG/KG	07/09/2021	EBS
Chromium	EPA-6020	**46**	0.10	1	MG/KG	07/09/2021	EBS
Lead	EPA-6020	**3.4**	0.10	1	MG/KG	07/09/2021	EBS
Selenium	EPA-6020	U	1.0	1	MG/KG	07/09/2021	EBS
Silver	EPA-6020	U	0.10	1	MG/KG	07/09/2021	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 3:30:00 PM
CLIENT SAMPLE ID	B-2-21 5-7.5 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**85.7**	07/14/2021	KLS
C25	NWTPH-DX	**116**	07/12/2021	JNF
1,2-Dichloroethane-d4	EPA-8260	**94.8**	07/09/2021	DLC
Toluene-d8	EPA-8260	**95.1**	07/09/2021	DLC
4-Bromofluorobenzene	EPA-8260	**113**	07/09/2021	DLC
2-Fluorophenol	EPA-8270	**113**	07/12/2021	JMK
Phenol-d5	EPA-8270	**106**	07/12/2021	JMK
Nitrobenzene-d5	EPA-8270	**85.8**	07/12/2021	JMK
2-Fluorobiphenyl	EPA-8270	**81.8**	07/12/2021	JMK
2,4,6-Tribromophenol	EPA-8270	**73.2**	07/12/2021	JMK
Terphenyl-d14	EPA-8270	**118**	07/12/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 2:15:00 PM
CLIENT SAMPLE ID	B-3-21 7.5-10 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/14/2021	KLS
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/12/2021	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Acetone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Toluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 2:15:00 PM
CLIENT SAMPLE ID	B-3-21 7.5-10 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Styrene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	**16**	10	1	UG/KG	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	**16**	10	1	UG/KG	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Phenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Aniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CLIENT SAMPLE ID	B-3-21 7.5-10 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 2:15:00 PM
CLIENT SAMPLE ID	B-3-21 7.5-10 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
Phenanthrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pyrene	EPA-8270	**130**	100	1	UG/KG	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**130**	100	1	UG/KG	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chromium (VI)	EPA-7196	U	5.0	1	MG/KG	07/13/2021	EBS
Mercury	EPA-7471	**0.040**	0.020	1	MG/KG	07/14/2021	RAL
Chromium (III)	Calc-Cr3	**53**	0.50	1	MG/KG	07/15/2021	AE
Arsenic	EPA-6020	**4.0**	0.20	1	MG/KG	07/09/2021	EBS
Barium	EPA-6020	**66**	0.10	1	MG/KG	07/09/2021	EBS
Cadmium	EPA-6020	**0.15**	0.10	1	MG/KG	07/09/2021	EBS
Chromium	EPA-6020	**53**	0.10	1	MG/KG	07/09/2021	EBS
Lead	EPA-6020	**20**	0.10	1	MG/KG	07/09/2021	EBS
Selenium	EPA-6020	U	1.0	1	MG/KG	07/09/2021	EBS
Silver	EPA-6020	U	0.10	1	MG/KG	07/09/2021	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**91.9**	07/14/2021	KLS

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/15/2021 EV21070036 EV21070036-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie	COLLECTION DATE:	7/8/2021 2:15:00 PM
CLIENT SAMPLE ID	B-3-21 7.5-10 FT	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**97.3**	07/12/2021	JNF
1,2-Dichloroethane-d4	EPA-8260	**98.1**	07/09/2021	DLC
Toluene-d8	EPA-8260	**105**	07/09/2021	DLC
4-Bromofluorobenzene	EPA-8260	**112**	07/09/2021	DLC
2-Fluorophenol	EPA-8270	**113**	07/12/2021	JMK
Phenol-d5	EPA-8270	**103**	07/12/2021	JMK
Nitrobenzene-d5	EPA-8270	**84.4**	07/12/2021	JMK
2-Fluorobiphenyl	EPA-8270	**81.6**	07/12/2021	JMK
2,4,6-Tribromophenol	EPA-8270	**74.5**	07/12/2021	JMK
Terphenyl-d14	EPA-8270	**109**	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/15/2021
		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBG-070921S - Batch 167837 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	07/09/2021	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167941 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	07/12/2021	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167827 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Acetone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Butanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Benzene	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/15/2021
		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Toluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Styrene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
o-Xylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromoform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Naphthalene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/15/2021
		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071221S - Batch 167890 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Phenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Aniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Isophorone	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzoic Acid	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Naphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/15/2021
ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY BLANK RESULTS

MB-071221S - Batch 167890 - Soil by EPA-8270

Dimethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluorene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Azobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Carbazole	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Chrysene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/15/2021
		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY BLANK RESULTS

MBLK-R387411 - Batch R387411 - Soil by EPA-7196

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Chromium (VI)	EPA-7196	U	MG/KG	5.0	07/13/2021	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387467 - Batch R387467 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167802 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	07/09/2021	EBS
Barium	EPA-6020	U	MG/KG	0.12	07/09/2021	EBS
Cadmium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Chromium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Lead	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Selenium	EPA-6020	U	MG/KG	1.0	07/09/2021	EBS
Silver	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS

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LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 167837 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**88.5**			66.5	122.7	07/09/2021	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**90.3**	**2**		66.5	122.7	07/09/2021	KLS

ALS Test Batch ID: 167941 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**100**			75.5	122.1	07/12/2021	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**98.7**	**1**		75.5	122.1	07/12/2021	JNF

ALS Test Batch ID: 167827 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**90.7**			50	150	07/09/2021	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**85.9**	**5**		50	150	07/09/2021	DLC
Chloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Chloromethane - BSD	EPA-8260	**113**	**4**		50	150	07/09/2021	DLC
Vinyl Chloride - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
Vinyl Chloride - BSD	EPA-8260	**118**	**4**		50	150	07/09/2021	DLC
Bromomethane - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
Bromomethane - BSD	EPA-8260	**105**	**3**		50	150	07/09/2021	DLC
Chloroethane - BS	EPA-8260	**120**			50	150	07/09/2021	DLC
Chloroethane - BSD	EPA-8260	**115**	**5**		50	150	07/09/2021	DLC
Carbon Tetrachloride - BS	EPA-8260	**112**			50	150	07/09/2021	DLC
Carbon Tetrachloride - BSD	EPA-8260	**105**	**6**		50	150	07/09/2021	DLC
Trichlorofluoromethane - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Trichlorofluoromethane - BSD	EPA-8260	**108**	**6**		50	150	07/09/2021	DLC
Carbon Disulfide - BS	EPA-8260	**124**			50	150	07/09/2021	DLC
Carbon Disulfide - BSD	EPA-8260	**116**	**6**		50	150	07/09/2021	DLC
Acetone - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Acetone - BSD	EPA-8260	**101**	**11**		50	150	07/09/2021	DLC
1,1-Dichloroethene - BS	EPA-8260	**118**			70	130	07/09/2021	DLC
1,1-Dichloroethene - BSD	EPA-8260	**111**	**6**		70	130	07/09/2021	DLC
Methylene Chloride - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
Methylene Chloride - BSD	EPA-8260	**92.4**	**26**	SR1	50	150	07/09/2021	DLC
Acrylonitrile - BS	EPA-8260	**127**			50	150	07/09/2021	DLC
Acrylonitrile - BSD	EPA-8260	**114**	**11**		50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**112**	**3**		50	150	07/09/2021	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**108**			50	150	07/09/2021	DLC

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ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Trans-1,2-Dichloroethene - BSD	EPA-8260	**104**	**4**		50	150	07/09/2021	DLC
1,1-Dichloroethane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,1-Dichloroethane - BSD	EPA-8260	**96.9**	**16**		50	150	07/09/2021	DLC
2-Butanone - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
2-Butanone - BSD	EPA-8260	**112**	**7**		50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**103**	**9**		50	150	07/09/2021	DLC
2,2-Dichloropropane - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
2,2-Dichloropropane - BSD	EPA-8260	**113**	**9**		50	150	07/09/2021	DLC
Bromochloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Bromochloromethane - BSD	EPA-8260	**111**	**6**		50	150	07/09/2021	DLC
Chloroform - BS	EPA-8260	**119**			50	150	07/09/2021	DLC
Chloroform - BSD	EPA-8260	**114**	**4**		50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**106**	**6**		50	150	07/09/2021	DLC
1,1-Dichloropropene - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
1,1-Dichloropropene - BSD	EPA-8260	**100**	**8**		50	150	07/09/2021	DLC
1,2-Dichloroethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
1,2-Dichloroethane - BSD	EPA-8260	**105**	**5**		50	150	07/09/2021	DLC
Benzene - BS	EPA-8260	**102**			75	138	07/09/2021	DLC
Benzene - BSD	EPA-8260	**98.5**	**4**		75	138	07/09/2021	DLC
Trichloroethene - BS	EPA-8260	**107**			75	136	07/09/2021	DLC
Trichloroethene - BSD	EPA-8260	**103**	**4**		75	136	07/09/2021	DLC
1,2-Dichloropropane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,2-Dichloropropane - BSD	EPA-8260	**103**	**10**		50	150	07/09/2021	DLC
Dibromomethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Dibromomethane - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Bromodichloromethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Bromodichloromethane - BSD	EPA-8260	**106**	**4**		50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**102**			50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**98.6**	**3**		50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Toluene - BS	EPA-8260	**104**			71.6	122.1	07/09/2021	DLC
Toluene - BSD	EPA-8260	**103**	**2**		71.6	122.1	07/09/2021	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**104**	**6**		50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**96.1**	**2**		50	150	07/09/2021	DLC
2-Hexanone - BS	EPA-8260	**106**			50	150	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

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DATE: 7/15/2021
ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Hexanone - BSD	EPA-8260	**104**	**1**		50	150	07/09/2021	DLC
1,3-Dichloropropane - BS	EPA-8260	**96.6**			50	150	07/09/2021	DLC
1,3-Dichloropropane - BSD	EPA-8260	**99.7**	**3**		50	150	07/09/2021	DLC
Tetrachloroethylene - BS	EPA-8260	**97.1**			50	150	07/09/2021	DLC
Tetrachloroethylene - BSD	EPA-8260	**96.1**	**1**		50	150	07/09/2021	DLC
Dibromochloromethane - BS	EPA-8260	**98.8**			50	150	07/09/2021	DLC
Dibromochloromethane - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,2-Dibromoethane - BS	EPA-8260	**99.2**			50	150	07/09/2021	DLC
1,2-Dibromoethane - BSD	EPA-8260	**98.4**	**1**		50	150	07/09/2021	DLC
Chlorobenzene - BS	EPA-8260	**96.9**			79	128	07/09/2021	DLC
Chlorobenzene - BSD	EPA-8260	**96.9**	**0**		79	128	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**98.4**			50	150	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**92.9**	**6**		50	150	07/09/2021	DLC
Ethylbenzene - BS	EPA-8260	**94.8**			50	150	07/09/2021	DLC
Ethylbenzene - BSD	EPA-8260	**94.9**	**0**		50	150	07/09/2021	DLC
m,p-Xylene - BS	EPA-8260	**91.5**			50	150	07/09/2021	DLC
m,p-Xylene - BSD	EPA-8260	**91.5**	**0**		50	150	07/09/2021	DLC
Styrene - BS	EPA-8260	**98.7**			50	150	07/09/2021	DLC
Styrene - BSD	EPA-8260	**98.9**	**0**		50	150	07/09/2021	DLC
o-Xylene - BS	EPA-8260	**98.6**			50	150	07/09/2021	DLC
o-Xylene - BSD	EPA-8260	**95.5**	**3**		50	150	07/09/2021	DLC
Bromoform - BS	EPA-8260	**106**			50	150	07/09/2021	DLC
Bromoform - BSD	EPA-8260	**107**	**1**		50	150	07/09/2021	DLC
Isopropylbenzene - BS	EPA-8260	**100**			50	150	07/09/2021	DLC
Isopropylbenzene - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**97.2**			50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**96.7**	**1**		50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**95.1**			50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**97.7**	**3**		50	150	07/09/2021	DLC
Bromobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Bromobenzene - BSD	EPA-8260	**95.8**	**4**		50	150	07/09/2021	DLC
N-Propyl Benzene - BS	EPA-8260	**91.9**			50	150	07/09/2021	DLC
N-Propyl Benzene - BSD	EPA-8260	**91.0**	**1**		50	150	07/09/2021	DLC
2-Chlorotoluene - BS	EPA-8260	**92.5**			50	150	07/09/2021	DLC
2-Chlorotoluene - BSD	EPA-8260	**91.6**	**1**		50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**92.4**			50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**92.1**	**0**		50	150	07/09/2021	DLC
4-Chlorotoluene - BS	EPA-8260	**90.5**			50	150	07/09/2021	DLC
4-Chlorotoluene - BSD	EPA-8260	**90.1**	**0**		50	150	07/09/2021	DLC
T-Butyl Benzene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
T-Butyl Benzene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**92.5**	**0**		50	150	07/09/2021	DLC
S-Butyl Benzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
S-Butyl Benzene - BSD	EPA-8260	**93.4**	**2**		50	150	07/09/2021	DLC
P-Isopropyltoluene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC
P-Isopropyltoluene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**91.8**			50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**90.8**	**1**		50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**86.1**			50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**85.8**	**0**		50	150	07/09/2021	DLC
N-Butylbenzene - BS	EPA-8260	**93.0**			50	150	07/09/2021	DLC
N-Butylbenzene - BSD	EPA-8260	**90.4**	**3**		50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**94.5**	**0**		50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**95.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**95.6**	**3**		50	150	07/09/2021	DLC
Hexachlorobutadiene - BS	EPA-8260	**93.6**			50	150	07/09/2021	DLC
Hexachlorobutadiene - BSD	EPA-8260	**92.0**	**2**		50	150	07/09/2021	DLC
Naphthalene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Naphthalene - BSD	EPA-8260	**93.8**	**2**		50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**93.5**			50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**94.7**	**1**		50	150	07/09/2021	DLC

SR1 - RPD outside of control limits.

ALS Test Batch ID: 167890 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**77.9**			20	150	07/12/2021	JMK
Pyridine - BSD	EPA-8270	**92.7**	**17**		20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**90.8**			20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**86.1**	**5**		20	150	07/12/2021	JMK
Phenol - BS	EPA-8270	**96.9**			36.1	131	07/12/2021	JMK
Phenol - BSD	EPA-8270	**110**	**13**		36.1	131	07/12/2021	JMK
Aniline - BS	EPA-8270	**67.7**			20	150	07/12/2021	JMK
Aniline - BSD	EPA-8270	**69.6**	**3**		20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**65.5**			20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**87.6**	**29**		20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/15/2021
ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Chlorophenol - BS	EPA-8270	**80.0**			59.9	111	07/12/2021	JMK
2-Chlorophenol - BSD	EPA-8270	**90.4**	**12**	SR1	59.9	111	07/12/2021	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**71.3**			20	150	07/12/2021	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**81.5**	**13**		20	150	07/12/2021	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**70.4**			44.3	122	07/12/2021	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**79.6**	**12**		44.3	122	07/12/2021	JMK
Benzyl Alcohol - BS	EPA-8270	**83.7**			20	150	07/12/2021	JMK
Benzyl Alcohol - BSD	EPA-8270	**92.9**	**10**		20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**73.2**			20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**82.0**	**11**		20	150	07/12/2021	JMK
2-Methylphenol - BS	EPA-8270	**84.4**			20	150	07/12/2021	JMK
2-Methylphenol - BSD	EPA-8270	**92.4**	**9**		20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**122**	**17**		20	150	07/12/2021	JMK
3&4-Methylphenol - BS	EPA-8270	**87.5**			20	150	07/12/2021	JMK
3&4-Methylphenol - BSD	EPA-8270	**95.6**	**9**		20	150	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**87.0**			31.6	134	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**80.1**	**8**		31.6	134	07/12/2021	JMK
Hexachloroethane - BS	EPA-8270	**65.0**			20	150	07/12/2021	JMK
Hexachloroethane - BSD	EPA-8270	**73.3**	**12**		20	150	07/12/2021	JMK
Nitrobenzene - BS	EPA-8270	**83.0**			20	150	07/12/2021	JMK
Nitrobenzene - BSD	EPA-8270	**96.1**	**15**		20	150	07/12/2021	JMK
Isophorone - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
Isophorone - BSD	EPA-8270	**87.2**	**14**		20	150	07/12/2021	JMK
2-Nitrophenol - BS	EPA-8270	**74.7**			20	150	07/12/2021	JMK
2-Nitrophenol - BSD	EPA-8270	**87.3**	**16**		20	150	07/12/2021	JMK
2,4-Dimethylphenol - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**80.2**	**5**		20	150	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**80.7**			20	150	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**93.6**	**15**		20	150	07/12/2021	JMK
2,4-Dichlorophenol - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**89.6**	**12**		20	150	07/12/2021	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**64.2**			44.6	122	07/12/2021	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**74.4**	**15**		44.6	122	07/12/2021	JMK
Naphthalene - BS	EPA-8270	**73.5**			20	150	07/12/2021	JMK
Naphthalene - BSD	EPA-8270	**84.5**	**14**		20	150	07/12/2021	JMK
4-Chloroaniline - BS	EPA-8270	**63.6**			20	150	07/12/2021	JMK
4-Chloroaniline - BSD	EPA-8270	**79.8**	**22**		20	150	07/12/2021	JMK
Hexachlorobutadiene - BS	EPA-8270	**59.4**			20	150	07/12/2021	JMK
Hexachlorobutadiene - BSD	EPA-8270	**68.7**	**14**		20	150	07/12/2021	JMK

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ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Chloro-3-Methylphenol - BS	EPA-8270	**87.9**			49.2	135	07/12/2021	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**96.1**	**9**		49.2	135	07/12/2021	JMK
2-Methylnaphthalene - BS	EPA-8270	**75.2**			20	150	07/12/2021	JMK
2-Methylnaphthalene - BSD	EPA-8270	**85.1**	**12**		20	150	07/12/2021	JMK
1-Methylnaphthalene - BS	EPA-8270	**77.4**			20	150	07/12/2021	JMK
1-Methylnaphthalene - BSD	EPA-8270	**87.5**	**12**		20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**41.7**			20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**50.7**	**19**		20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**69.5**			20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**76.9**	**10**		20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**72.2**			20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**79.9**	**10**		20	150	07/12/2021	JMK
2-Chloronaphthalene - BS	EPA-8270	**75.8**			20	150	07/12/2021	JMK
2-Chloronaphthalene - BSD	EPA-8270	**85.0**	**11**		20	150	07/12/2021	JMK
2-Nitroaniline - BS	EPA-8270	**85.0**			20	150	07/12/2021	JMK
2-Nitroaniline - BSD	EPA-8270	**96.0**	**12**		20	150	07/12/2021	JMK
Acenaphthylene - BS	EPA-8270	**80.8**			20	150	07/12/2021	JMK
Acenaphthylene - BSD	EPA-8270	**91.5**	**12**		20	150	07/12/2021	JMK
Dimethylphthalate - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
Dimethylphthalate - BSD	EPA-8270	**89.8**	**12**		20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**81.9**			20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**92.2**	**12**		20	150	07/12/2021	JMK
Acenaphthene - BS	EPA-8270	**76.1**			49.3	117	07/12/2021	JMK
Acenaphthene - BSD	EPA-8270	**85.7**	**12**		49.3	117	07/12/2021	JMK
3-Nitroaniline - BS	EPA-8270	**473**		SQ1	20	150	07/12/2021	JMK
3-Nitroaniline - BSD	EPA-8270	**562**	**17**	DUP05	20	150	07/12/2021	JMK
2,4-Dinitrophenol - BS	EPA-8270	**89.6**			20	150	07/12/2021	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**106**	**16**		20	150	07/12/2021	JMK
4-Nitrophenol - BS	EPA-8270	**68.6**			29.8	137	07/12/2021	JMK
4-Nitrophenol - BSD	EPA-8270	**79.9**	**15**		29.8	137	07/12/2021	JMK
Dibenzofuran - BS	EPA-8270	**79.2**			20	150	07/12/2021	JMK
Dibenzofuran - BSD	EPA-8270	**88.2**	**11**		20	150	07/12/2021	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**85.8**			55.3	130	07/12/2021	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**98.2**	**13**		55.3	130	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**69.0**			20	150	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**78.5**	**13**		20	150	07/12/2021	JMK
Diethylphthalate - BS	EPA-8270	**82.8**			20	150	07/12/2021	JMK
Diethylphthalate - BSD	EPA-8270	**93.9**	**13**		20	150	07/12/2021	JMK
Fluorene - BS	EPA-8270	**81.3**			20	150	07/12/2021	JMK
Fluorene - BSD	EPA-8270	**90.9**	**11**		20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

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DATE: 7/15/2021
ALS SDG#: EV21070036
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Chlorophenyl-Phenylether - BS	EPA-8270	**73.3**			20	150	07/12/2021	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**83.0**	**12**		20	150	07/12/2021	JMK
4-Nitroaniline - BS	EPA-8270	**189**		SQ1	20	150	07/12/2021	JMK
4-Nitroaniline - BSD	EPA-8270	**207**	**9**	DUP05	20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**96.1**			20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**112**	**16**		20	150	07/12/2021	JMK
Azobenzene - BS	EPA-8270	**100**			20	150	07/12/2021	JMK
Azobenzene - BSD	EPA-8270	**115**	**14**		20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**68.1**			20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**78.2**	**14**		20	150	07/12/2021	JMK
Hexachlorobenzene - BS	EPA-8270	**68.8**			20	150	07/12/2021	JMK
Hexachlorobenzene - BSD	EPA-8270	**78.2**	**13**		20	150	07/12/2021	JMK
Pentachlorophenol - BS	EPA-8270	**62.6**			41.3	113	07/12/2021	JMK
Pentachlorophenol - BSD	EPA-8270	**72.8**	**15**		41.3	113	07/12/2021	JMK
Phenanthrene - BS	EPA-8270	**82.0**			20	150	07/12/2021	JMK
Phenanthrene - BSD	EPA-8270	**93.2**	**13**		20	150	07/12/2021	JMK
Anthracene - BS	EPA-8270	**78.6**			20	150	07/12/2021	JMK
Anthracene - BSD	EPA-8270	**92.4**	**16**		20	150	07/12/2021	JMK
Carbazole - BS	EPA-8270	**169**		SQ1	20	150	07/12/2021	JMK
Carbazole - BSD	EPA-8270	**181**	**7**	DUP05	20	150	07/12/2021	JMK
Di-N-Butylphthalate - BS	EPA-8270	**87.2**			20	150	07/12/2021	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**102**	**15**		20	150	07/12/2021	JMK
Fluoranthene - BS	EPA-8270	**79.5**			20	150	07/12/2021	JMK
Fluoranthene - BSD	EPA-8270	**88.8**	**11**		20	150	07/12/2021	JMK
Pyrene - BS	EPA-8270	**91.8**			57.4	145	07/12/2021	JMK
Pyrene - BSD	EPA-8270	**107**	**15**		57.4	145	07/12/2021	JMK
Butylbenzylphthalate - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Butylbenzylphthalate - BSD	EPA-8270	**121**	**16**		20	150	07/12/2021	JMK
Benzo[A]Anthracene - BS	EPA-8270	**79.7**			20	150	07/12/2021	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**90.8**	**13**		20	150	07/12/2021	JMK
Chrysene - BS	EPA-8270	**77.2**			20	150	07/12/2021	JMK
Chrysene - BSD	EPA-8270	**89.2**	**14**		20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**101**			20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**119**	**16**		20	150	07/12/2021	JMK
Di-N-Octylphthalate - BS	EPA-8270	**98.2**			20	150	07/12/2021	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**112**	**13**		20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**89.0**			20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**101**	**13**		20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**83.3**			20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**95.4**	**14**		20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/15/2021
		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Pyrene - BS	EPA-8270	**84.2**			20	150	07/12/2021	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**97.1**	**14**		20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**67.8**			20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**82.2**	**19**		20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**68.6**			20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**84.1**	**20**		20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**70.0**			20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**83.4**	**18**		20	150	07/12/2021	JMK

DUP05 - LCS/LCSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.
SR1 - RPD outside of control limits.

ALS Test Batch ID: R387411 - Soil by EPA-7196

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (VI) - BS	EPA-7196	**103**			91	114	07/13/2021	EBS
Chromium (VI) - BSD	EPA-7196	**104**	**1**		91	114	07/13/2021	EBS

ALS Test Batch ID: R387467 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**109**			81.8	117	07/14/2021	RAL
Mercury - BSD	EPA-7471	**107**	**1**		81.8	117	07/14/2021	RAL

ALS Test Batch ID: 167802 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**99.0**			80	120	07/09/2021	EBS
Arsenic - BSD	EPA-6020	**97.0**	**2**		80	120	07/09/2021	EBS
Barium - BS	EPA-6020	**101**			80	120	07/09/2021	EBS
Barium - BSD	EPA-6020	**98.3**	**3**		80	120	07/09/2021	EBS
Cadmium - BS	EPA-6020	**105**			80	120	07/09/2021	EBS
Cadmium - BSD	EPA-6020	**102**	**3**		80	120	07/09/2021	EBS
Chromium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS
Chromium - BSD	EPA-6020	**97.5**	**3**		80	120	07/09/2021	EBS
Lead - BS	EPA-6020	**98.3**			80	120	07/09/2021	EBS
Lead - BSD	EPA-6020	**96.5**	**2**		80	120	07/09/2021	EBS
Selenium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS
Selenium - BSD	EPA-6020	**97.2**	**3**		80	120	07/09/2021	EBS
Silver - BS	EPA-6020	**107**			80	120	07/09/2021	EBS

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		ALS SDG#:	EV21070036
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Silver - BSD	EPA-6020	**103**	**3**		80	120	07/09/2021	EBS

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2107003G

Date 7/9/21 Page 1 Of 1

PROJECT ID: Brown & Caldwell Ph. III - McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
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ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☒	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☒	Pri Pol ☐	TAL ☐	Metals Other (Specify)	TCLP-Metals ☐	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	Hexchrome	Cr3	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. B-2-21 5-7.5 FT	7/8/21	3:30	soil	1		X	X				X		X			X					X									X	X	4	
2. B-3-21 7.5-10 FT	7/8/21	2:15	soil	2		X	X				X		X			X					X									X	X	4	
3.																																	
4.																																	
5.																																	
6.																																	
7.																																	
8.																																	
9.																																	
10.																																	

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] C. W.E.S. 7-9-21 10:10
   Received By: [signature] ALS 7-9-21 1010
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

APPENDIX G

2020 Groundwater Laboratory Analytical Data

December 1, 2020

Mr. Thom Davis
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Davis,

On November 20th, 14 samples were received by our laboratory and assigned our laboratory project number EV20110131. The project was identified as your Brown & Caldwell Ph. III - McKenzie TASK #3. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:00:00 AM
CLIENT SAMPLE ID	MW-Dup.-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	**810**	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**360**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	**4.0**	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:00:00 AM
CLIENT SAMPLE ID	MW-Dup.-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-01
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CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:00:00 AM
CLIENT SAMPLE ID	MW-Dup.-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:00:00 AM
CLIENT SAMPLE ID	MW-Dup.-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**1.1**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**170**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-01
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:00:00 AM
CLIENT SAMPLE ID	MW-Dup.-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**98.2**	11/23/2020	KLS
C25	NWTPH-DX	**88.4**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**98.9**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**39.2**	11/24/2020	JMK
Phenol-d5	EPA-8270	**20.4**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**55.4**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**42.2**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**102**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**92.4**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:30:00 AM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:30:00 AM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:30:00 AM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:30:00 AM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-02
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 9:30:00 AM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	11/23/2020	KLS
C25	NWTPH-DX	**89.2**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**102**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**44.9**	11/24/2020	JMK
Phenol-d5	EPA-8270	**21.6**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**68.7**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**67.6**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**96.1**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**97.6**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	**760**	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**420**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	**4.2**	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**1.0**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**170**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-03
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	11/23/2020	KLS
C25	NWTPH-DX	**93.0**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**42.3**	11/24/2020	JMK
Phenol-d5	EPA-8270	**22.8**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**64.0**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**62.5**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**105**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**93.3**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:35:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**490**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:35:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:35:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:35:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**3.7**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**130**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-04
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 10:35:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**100**	11/23/2020	KLS
C25	NWTPH-DX	**95.9**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**41.1**	11/24/2020	JMK
Phenol-d5	EPA-8270	**21.2**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**67.1**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**63.7**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**103**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**94.5**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**650**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**8.9**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**92**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-05
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.9**	11/23/2020	KLS
C25	NWTPH-DX	**96.6**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**41.1**	11/24/2020	JMK
Phenol-d5	EPA-8270	**19.4**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**67.4**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**60.9**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**98.6**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**94.7**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:10:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**480**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:10:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:10:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:10:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**1.8**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**17**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-06
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 12:10:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	11/23/2020	KLS
C25	NWTPH-DX	**77.0**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**43.3**	11/24/2020	JMK
Phenol-d5	EPA-8270	**20.3**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**68.4**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**67.6**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**99.7**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**98.6**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:00:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**380**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:00:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:00:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:00:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**1.8**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**23**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-07
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:00:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.7**	11/23/2020	KLS
C25	NWTPH-DX	**73.6**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**102**	11/25/2020	DLC
Toluene-d8	EPA-8260	**100**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**42.6**	11/24/2020	JMK
Phenol-d5	EPA-8270	**19.5**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**72.3**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**71.8**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**98.1**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**95.1**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:40:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:40:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:40:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:40:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.1	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**39**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-08
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 1:40:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.5**	11/23/2020	KLS
C25	NWTPH-DX	**87.6**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**44.8**	11/24/2020	JMK
Phenol-d5	EPA-8270	**20.9**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**70.4**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**66.6**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**104**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**96.5**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 2:15:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**3000**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 2:15:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 2:15:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 2:15:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**2.3**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**190**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-09
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 2:15:00 PM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.2**	11/23/2020	KLS
C25	NWTPH-DX	**96.7**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**100**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**102**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**46.8**	11/24/2020	JMK
Phenol-d5	EPA-8270	**22.7**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**78.5**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**67.4**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**115**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**94.4**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:05:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:05:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:05:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:05:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**39**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-10
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:05:00 PM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**100**	11/23/2020	KLS
C25	NWTPH-DX	**100**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**100**	11/25/2020	DLC
Toluene-d8	EPA-8260	**102**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**103**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**41.0**	11/24/2020	JMK
Phenol-d5	EPA-8270	**20.2**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**68.3**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**56.0**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**104**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**96.2**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	11/24/2020	JNF
TPH-Oil Range	NWTPH-DX	**630**	250	1	UG/L	11/24/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**3.6**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**95**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-11
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/18/2020 3:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**99.4**	11/23/2020	KLS
C25	NWTPH-DX	**93.9**	11/24/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**102**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**105**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**43.5**	11/24/2020	JMK
Phenol-d5	EPA-8270	**16.3**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**70.2**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**55.3**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**104**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**97.9**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified oil range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:10:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	**150**	130	1	UG/L	12/01/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/01/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:10:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:10:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:10:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**6.9**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**150**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-12
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:10:00 AM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.6**	11/23/2020	KLS
C25	NWTPH-DX	**95.1**	12/01/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**105**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**42.9**	11/24/2020	JMK
Phenol-d5	EPA-8270	**21.0**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**70.2**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**61.2**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**105**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**99.1**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:15:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	**280**	130	1	UG/L	12/01/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/01/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:15:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:15:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	**3.3**	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:15:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	**17**	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**59**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	**3.2**	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	**12**	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-13
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 9:15:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**97.2**	11/23/2020	KLS
C25	NWTPH-DX	**89.2**	12/01/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**102**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**42.0**	11/24/2020	JMK
Phenol-d5	EPA-8270	**22.2**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**65.5**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**57.4**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**93.9**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**66.5**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	11/23/2020	KLS
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	12/01/2020	JNF
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	12/01/2020	JNF
Dichlorodifluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	0.20	1	UG/L	11/25/2020	DLC
Bromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Acetone	EPA-8260	U	25	1	UG/L	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	5.0	1	UG/L	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Butanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Chloroform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trichloroethene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromomethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
Toluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Hexanone	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	0.010	1	UG/L	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	4.0	1	UG/L	11/25/2020	DLC
Styrene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
o-Xylene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromoform	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Bromobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,3-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	10	1	UG/L	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Naphthalene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	2.0	1	UG/L	11/25/2020	DLC
Pyridine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Phenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Aniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Isophorone	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Naphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobutadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Acenaphthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	10	1	UG/L	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS JOB#:	EV20110131
		ALS SAMPLE#:	EV20110131-14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Diethylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluorene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Azobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	5.0	1	UG/L	11/24/2020	JMK
Phenanthrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Carbazole	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Chrysene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Di-N-Octylphthalate	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	2.0	1	UG/L	11/24/2020	JMK
Mercury (Dissolved)	EPA-245.1	U	0.20	1	UG/L	11/25/2020	RAL
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	**11**	1.0	1	UG/L	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	2.0	1	UG/L	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	4.0	1	UG/L	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	1.0	1	UG/L	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	12/1/2020 EV20110131 EV20110131-14
CLIENT CONTACT:	Thom Davis	DATE RECEIVED:	11/20/2020
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3	COLLECTION DATE:	11/19/2020 10:30:00 AM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**94.2**	11/23/2020	KLS
C25	NWTPH-DX	**103**	12/01/2020	JNF
1,2-Dichloroethane-d4	EPA-8260	**101**	11/25/2020	DLC
Toluene-d8	EPA-8260	**101**	11/25/2020	DLC
4-Bromofluorobenzene	EPA-8260	**104**	11/25/2020	DLC
2-Fluorophenol	EPA-8270	**41.5**	11/24/2020	JMK
Phenol-d5	EPA-8270	**20.2**	11/24/2020	JMK
Nitrobenzene-d5	EPA-8270	**67.1**	11/24/2020	JMK
2-Fluorobiphenyl	EPA-8270	**54.7**	11/24/2020	JMK
2,4,6-Tribromophenol	EPA-8270	**96.3**	11/24/2020	JMK
Terphenyl-d14	EPA-8270	**92.8**	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY BLANK RESULTS

MBG-112320W - Batch 160081 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	11/23/2020	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-112220 - Batch 160135 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	11/23/2020	JNF
TPH-Oil Range	NWTPH-DX	U	UG/L	250	11/23/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-112420W - Batch 160142 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	11/29/2020	JNF
TPH-Oil Range	NWTPH-DX	U	UG/L	250	11/29/2020	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-112520W - Batch 160183 - Water by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Chloromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Vinyl Chloride	EPA-8260	U	UG/L	0.20	11/25/2020	DLC
Bromomethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Chloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Carbon Tetrachloride	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Trichlorofluoromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Carbon Disulfide	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Acetone	EPA-8260	U	UG/L	25	11/25/2020	DLC
1,1-Dichloroethene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Methylene Chloride	EPA-8260	U	UG/L	5.0	11/25/2020	DLC
Acrylonitrile	EPA-8260	U	UG/L	10	11/25/2020	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1-Dichloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
2-Butanone	EPA-8260	U	UG/L	10	11/25/2020	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY BLANK RESULTS

MB-112520W - Batch 160183 - Water by EPA-8260

2,2-Dichloropropane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Bromochloromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Chloroform	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1-Dichloropropene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2-Dichloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Benzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Trichloroethene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2-Dichloropropane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Dibromomethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Bromodichloromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/L	10	11/25/2020	DLC
Toluene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
2-Hexanone	EPA-8260	U	UG/L	10	11/25/2020	DLC
1,3-Dichloropropane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Tetrachloroethylene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Dibromochloromethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2-Dibromoethane	EPA-8260	U	UG/L	0.010	11/25/2020	DLC
Chlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Ethylbenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
m,p-Xylene	EPA-8260	U	UG/L	4.0	11/25/2020	DLC
Styrene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
o-Xylene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Bromoform	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Isopropylbenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Bromobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
N-Propyl Benzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
2-Chlorotoluene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
4-Chlorotoluene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
T-Butyl Benzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
S-Butyl Benzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
P-Isopropyltoluene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY BLANK RESULTS

MB-112520W - Batch 160183 - Water by EPA-8260

1,3-Dichlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
N-Butylbenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/L	10	11/25/2020	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Hexachlorobutadiene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
Naphthalene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/L	2.0	11/25/2020	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-112320W - Batch 160015 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Phenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Aniline	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Chlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzyl Alcohol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Methylphenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
3&4-Methylphenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Hexachloroethane	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Nitrobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Isophorone	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Nitrophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzoic Acid	EPA-8270	U	UG/L	10	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Naphthalene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4-Chloroaniline	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK

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CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY BLANK RESULTS

MB-112320W - Batch 160015 - Water by EPA-8270

Hexachlorobutadiene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Methylnaphthalene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
1-Methylnaphthalene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Chloronaphthalene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2-Nitroaniline	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Acenaphthylene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Dimethylphthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Acenaphthene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
3-Nitroaniline	EPA-8270	U	UG/L	5.0	11/24/2020	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/L	10	11/24/2020	JMK
4-Nitrophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Dibenzofuran	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Diethylphthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Fluorene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4-Nitroaniline	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Azobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Hexachlorobenzene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Pentachlorophenol	EPA-8270	U	UG/L	5.0	11/24/2020	JMK
Phenanthrene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Anthracene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Carbazole	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Fluoranthene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Pyrene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Butylbenzylphthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Chrysene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY BLANK RESULTS

MB-112320W - Batch 160015 - Water by EPA-8270

Di-N-Octylphthalate	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/L	2.0	11/24/2020	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R373708 - Batch R373708 - Water by EPA-245.1

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved)	EPA-245.1	U	UG/L	0.20	11/25/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-112420W - Batch 160151 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	11/25/2020	RAL
Barium (Dissolved)	EPA-200.8	U	UG/L	1.0	11/25/2020	RAL
Cadmium (Dissolved)	EPA-200.8	U	UG/L	1.0	11/25/2020	RAL
Chromium (Dissolved)	EPA-200.8	U	UG/L	2.0	11/25/2020	RAL
Lead (Dissolved)	EPA-200.8	U	UG/L	1.0	11/25/2020	RAL
Selenium (Dissolved)	EPA-200.8	U	UG/L	4.0	11/25/2020	RAL
Silver (Dissolved)	EPA-200.8	U	UG/L	1.0	11/25/2020	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 160081 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**81.1**			66.5	122.7	11/23/2020	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**85.4**	**5**		66.5	122.7	11/23/2020	KLS

ALS Test Batch ID: 160135 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**102**			67	125.2	11/23/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**104**	**2**		67	125.2	11/23/2020	JNF

ALS Test Batch ID: 160142 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**92.7**			67	125.2	11/29/2020	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**97.3**	**5**		67	125.2	11/29/2020	JNF

ALS Test Batch ID: 160183 - Water by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**134**			50	150	11/25/2020	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**127**	**6**		50	150	11/25/2020	DLC
Chloromethane - BS	EPA-8260	**111**			50	150	11/25/2020	DLC
Chloromethane - BSD	EPA-8260	**106**	**5**		50	150	11/25/2020	DLC
Vinyl Chloride - BS	EPA-8260	**120**			50	150	11/25/2020	DLC
Vinyl Chloride - BSD	EPA-8260	**114**	**5**		50	150	11/25/2020	DLC
Bromomethane - BS	EPA-8260	**113**			50	150	11/25/2020	DLC
Bromomethane - BSD	EPA-8260	**110**	**3**		50	150	11/25/2020	DLC
Chloroethane - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
Chloroethane - BSD	EPA-8260	**112**	**4**		50	150	11/25/2020	DLC
Carbon Tetrachloride - BS	EPA-8260	**122**			50	150	11/25/2020	DLC
Carbon Tetrachloride - BSD	EPA-8260	**116**	**5**		50	150	11/25/2020	DLC
Trichlorofluoromethane - BS	EPA-8260	**123**			50	150	11/25/2020	DLC
Trichlorofluoromethane - BSD	EPA-8260	**118**	**5**		50	150	11/25/2020	DLC
Carbon Disulfide - BS	EPA-8260	**113**			50	150	11/25/2020	DLC
Carbon Disulfide - BSD	EPA-8260	**109**	**4**		50	150	11/25/2020	DLC
Acetone - BS	EPA-8260	**186**		SQ1	50	150	11/25/2020	DLC
Acetone - BSD	EPA-8260	**187**	**1**	SQ1	50	150	11/25/2020	DLC
1,1-Dichloroethene - BS	EPA-8260	**113**			72.5	136	11/25/2020	DLC
1,1-Dichloroethene - BSD	EPA-8260	**108**	**4**		72.5	136	11/25/2020	DLC

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CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie
TASK #3

DATE: 12/1/2020
ALS SDG#: EV20110131
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Methylene Chloride - BS	EPA-8260	**109**			50	150	11/25/2020	DLC
Methylene Chloride - BSD	EPA-8260	**109**	**0**		50	150	11/25/2020	DLC
Acrylonitrile - BS	EPA-8260	**118**			50	150	11/25/2020	DLC
Acrylonitrile - BSD	EPA-8260	**113**	**4**		50	150	11/25/2020	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**105**			50	150	11/25/2020	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**106**	**0**		50	150	11/25/2020	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
Trans-1,2-Dichloroethene - BSD	EPA-8260	**112**	**3**		50	150	11/25/2020	DLC
1,1-Dichloroethane - BS	EPA-8260	**111**			50	150	11/25/2020	DLC
1,1-Dichloroethane - BSD	EPA-8260	**108**	**3**		50	150	11/25/2020	DLC
2-Butanone - BS	EPA-8260	**148**			50	150	11/25/2020	DLC
2-Butanone - BSD	EPA-8260	**150**	**1**		50	150	11/25/2020	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**109**			50	150	11/25/2020	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**107**	**2**		50	150	11/25/2020	DLC
2,2-Dichloropropane - BS	EPA-8260	**126**			50	150	11/25/2020	DLC
2,2-Dichloropropane - BSD	EPA-8260	**120**	**5**		50	150	11/25/2020	DLC
Bromochloromethane - BS	EPA-8260	**97.9**			50	150	11/25/2020	DLC
Bromochloromethane - BSD	EPA-8260	**96.9**	**1**		50	150	11/25/2020	DLC
Chloroform - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
Chloroform - BSD	EPA-8260	**113**	**3**		50	150	11/25/2020	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**117**			50	150	11/25/2020	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**112**	**4**		50	150	11/25/2020	DLC
1,1-Dichloropropene - BS	EPA-8260	**118**			50	150	11/25/2020	DLC
1,1-Dichloropropene - BSD	EPA-8260	**113**	**4**		50	150	11/25/2020	DLC
1,2-Dichloroethane - BS	EPA-8260	**96.6**			50	150	11/25/2020	DLC
1,2-Dichloroethane - BSD	EPA-8260	**95.9**	**1**		50	150	11/25/2020	DLC
Benzene - BS	EPA-8260	**117**			74.7	143	11/25/2020	DLC
Benzene - BSD	EPA-8260	**114**	**3**		74.7	143	11/25/2020	DLC
Trichloroethene - BS	EPA-8260	**135**			74.4	141	11/25/2020	DLC
Trichloroethene - BSD	EPA-8260	**132**	**2**		74.4	141	11/25/2020	DLC
1,2-Dichloropropane - BS	EPA-8260	**105**			50	150	11/25/2020	DLC
1,2-Dichloropropane - BSD	EPA-8260	**104**	**2**		50	150	11/25/2020	DLC
Dibromomethane - BS	EPA-8260	**101**			50	150	11/25/2020	DLC
Dibromomethane - BSD	EPA-8260	**101**	**0**		50	150	11/25/2020	DLC
Bromodichloromethane - BS	EPA-8260	**104**			50	150	11/25/2020	DLC
Bromodichloromethane - BSD	EPA-8260	**102**	**2**		50	150	11/25/2020	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**109**			50	150	11/25/2020	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**105**	**4**		50	150	11/25/2020	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**106**			50	150	11/25/2020	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Methyl-2-Pentanone - BSD	EPA-8260	**107**	**1**		50	150	11/25/2020	DLC
Toluene - BS	EPA-8260	**112**			71.7	139	11/25/2020	DLC
Toluene - BSD	EPA-8260	**109**	**2**		71.7	139	11/25/2020	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**108**			50	150	11/25/2020	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**107**	**1**		50	150	11/25/2020	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**104**			50	150	11/25/2020	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**101**	**3**		50	150	11/25/2020	DLC
2-Hexanone - BS	EPA-8260	**152**		SQ1	50	150	11/25/2020	DLC
2-Hexanone - BSD	EPA-8260	**150**	**1**		50	150	11/25/2020	DLC
1,3-Dichloropropane - BS	EPA-8260	**104**			50	150	11/25/2020	DLC
1,3-Dichloropropane - BSD	EPA-8260	**100**	**4**		50	150	11/25/2020	DLC
Tetrachloroethylene - BS	EPA-8260	**168**		SQ1	50	150	11/25/2020	DLC
Tetrachloroethylene - BSD	EPA-8260	**158**	**6**	SQ1	50	150	11/25/2020	DLC
Dibromochloromethane - BS	EPA-8260	**107**			50	150	11/25/2020	DLC
Dibromochloromethane - BSD	EPA-8260	**103**	**4**		50	150	11/25/2020	DLC
1,2-Dibromoethane - BS	EPA-8260	**104**			50	150	11/25/2020	DLC
1,2-Dibromoethane - BSD	EPA-8260	**100**	**3**		50	150	11/25/2020	DLC
Chlorobenzene - BS	EPA-8260	**111**			73	131	11/25/2020	DLC
Chlorobenzene - BSD	EPA-8260	**105**	**5**		73	131	11/25/2020	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**110**			50	150	11/25/2020	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**105**	**5**		50	150	11/25/2020	DLC
Ethylbenzene - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
Ethylbenzene - BSD	EPA-8260	**109**	**6**		50	150	11/25/2020	DLC
m,p-Xylene - BS	EPA-8260	**119**			50	150	11/25/2020	DLC
m,p-Xylene - BSD	EPA-8260	**112**	**6**		50	150	11/25/2020	DLC
Styrene - BS	EPA-8260	**115**			50	150	11/25/2020	DLC
Styrene - BSD	EPA-8260	**110**	**5**		50	150	11/25/2020	DLC
o-Xylene - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
o-Xylene - BSD	EPA-8260	**110**	**6**		50	150	11/25/2020	DLC
Bromoform - BS	EPA-8260	**106**			50	150	11/25/2020	DLC
Bromoform - BSD	EPA-8260	**103**	**3**		50	150	11/25/2020	DLC
Isopropylbenzene - BS	EPA-8260	**119**			50	150	11/25/2020	DLC
Isopropylbenzene - BSD	EPA-8260	**112**	**6**		50	150	11/25/2020	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**78.6**			50	150	11/25/2020	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**71.9**	**9**		50	150	11/25/2020	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**96.9**			50	150	11/25/2020	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**91.1**	**6**		50	150	11/25/2020	DLC
Bromobenzene - BS	EPA-8260	**108**			50	150	11/25/2020	DLC
Bromobenzene - BSD	EPA-8260	**99.8**	**8**		50	150	11/25/2020	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
N-Propyl Benzene - BS	EPA-8260	**121**			50	150	11/25/2020	DLC
N-Propyl Benzene - BSD	EPA-8260	**109**	**10**		50	150	11/25/2020	DLC
2-Chlorotoluene - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
2-Chlorotoluene - BSD	EPA-8260	**105**	**10**		50	150	11/25/2020	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**122**			50	150	11/25/2020	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**110**	**10**		50	150	11/25/2020	DLC
4-Chlorotoluene - BS	EPA-8260	**116**			50	150	11/25/2020	DLC
4-Chlorotoluene - BSD	EPA-8260	**105**	**9**		50	150	11/25/2020	DLC
T-Butyl Benzene - BS	EPA-8260	**117**			50	150	11/25/2020	DLC
T-Butyl Benzene - BSD	EPA-8260	**104**	**11**		50	150	11/25/2020	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**121**			50	150	11/25/2020	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**110**	**9**		50	150	11/25/2020	DLC
S-Butyl Benzene - BS	EPA-8260	**120**			50	150	11/25/2020	DLC
S-Butyl Benzene - BSD	EPA-8260	**108**	**11**		50	150	11/25/2020	DLC
P-Isopropyltoluene - BS	EPA-8260	**121**			50	150	11/25/2020	DLC
P-Isopropyltoluene - BSD	EPA-8260	**110**	**10**		50	150	11/25/2020	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**115**			50	150	11/25/2020	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**104**	**9**		50	150	11/25/2020	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**113**			50	150	11/25/2020	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**104**	**9**		50	150	11/25/2020	DLC
N-Butylbenzene - BS	EPA-8260	**126**			50	150	11/25/2020	DLC
N-Butylbenzene - BSD	EPA-8260	**114**	**10**		50	150	11/25/2020	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**111**			50	150	11/25/2020	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**102**	**8**		50	150	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**97.4**			50	150	11/25/2020	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**91.5**	**6**		50	150	11/25/2020	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**108**			50	150	11/25/2020	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**103**	**5**		50	150	11/25/2020	DLC
Hexachlorobutadiene - BS	EPA-8260	**129**			50	150	11/25/2020	DLC
Hexachlorobutadiene - BSD	EPA-8260	**116**	**11**		50	150	11/25/2020	DLC
Naphthalene - BS	EPA-8260	**98.4**			50	150	11/25/2020	DLC
Naphthalene - BSD	EPA-8260	**99.7**	**1**		50	150	11/25/2020	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**105**			50	150	11/25/2020	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**101**	**4**		50	150	11/25/2020	DLC

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 160015 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**37.5**			20	150	11/24/2020	JMK
Pyridine - BSD	EPA-8270	**38.5**	**2**		20	150	11/24/2020	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**72.8**			20	150	11/24/2020	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**72.4**	**1**		20	150	11/24/2020	JMK
Phenol - BS	EPA-8270	**24.0**			5	84	11/24/2020	JMK
Phenol - BSD	EPA-8270	**26.9**	**11**		5	84	11/24/2020	JMK
Aniline - BS	EPA-8270	**28.1**			20	150	11/24/2020	JMK
Aniline - BSD	EPA-8270	**26.1**	**8**		20	150	11/24/2020	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**90.4**			20	150	11/24/2020	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**90.1**	**0**		20	150	11/24/2020	JMK
2-Chlorophenol - BS	EPA-8270	**79.4**			45	111	11/24/2020	JMK
2-Chlorophenol - BSD	EPA-8270	**77.1**	**3**		45	111	11/24/2020	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**63.7**			20	150	11/24/2020	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**62.1**	**2**		20	150	11/24/2020	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**66.2**			27.1	114	11/24/2020	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**65.8**	**1**		27.1	114	11/24/2020	JMK
Benzyl Alcohol - BS	EPA-8270	**62.8**			20	150	11/24/2020	JMK
Benzyl Alcohol - BSD	EPA-8270	**59.5**	**5**		20	150	11/24/2020	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**68.6**			20	150	11/24/2020	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**66.8**	**3**		20	150	11/24/2020	JMK
2-Methylphenol - BS	EPA-8270	**66.1**			20	150	11/24/2020	JMK
2-Methylphenol - BSD	EPA-8270	**63.8**	**4**		20	150	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**91.7**			20	150	11/24/2020	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**88.7**	**3**		20	150	11/24/2020	JMK
3&4-Methylphenol - BS	EPA-8270	**57.8**			20	150	11/24/2020	JMK
3&4-Methylphenol - BSD	EPA-8270	**55.3**	**4**		20	150	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**88.5**			42.2	119	11/24/2020	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**77.7**	**13**		42.2	119	11/24/2020	JMK
Hexachloroethane - BS	EPA-8270	**66.8**			20	150	11/24/2020	JMK
Hexachloroethane - BSD	EPA-8270	**67.3**	**1**		20	150	11/24/2020	JMK
Nitrobenzene - BS	EPA-8270	**100**			20	150	11/24/2020	JMK
Nitrobenzene - BSD	EPA-8270	**98.4**	**2**		20	150	11/24/2020	JMK
Isophorone - BS	EPA-8270	**83.4**			20	150	11/24/2020	JMK
Isophorone - BSD	EPA-8270	**86.2**	**3**		20	150	11/24/2020	JMK
2-Nitrophenol - BS	EPA-8270	**99.0**			20	150	11/24/2020	JMK
2-Nitrophenol - BSD	EPA-8270	**95.7**	**3**		20	150	11/24/2020	JMK
2,4-Dimethylphenol - BS	EPA-8270	**81.3**			20	150	11/24/2020	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**77.8**	**4**		20	150	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie
TASK #3

DATE: 12/1/2020
ALS SDG#: EV20110131
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**86.6**			20	150	11/24/2020	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**84.7**	**2**		20	150	11/24/2020	JMK
2,4-Dichlorophenol - BS	EPA-8270	**86.4**			20	150	11/24/2020	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**84.5**	**2**		20	150	11/24/2020	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**71.6**			29.4	120	11/24/2020	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**70.1**	**2**		29.4	120	11/24/2020	JMK
Naphthalene - BS	EPA-8270	**81.6**			20	150	11/24/2020	JMK
Naphthalene - BSD	EPA-8270	**80.0**	**2**		20	150	11/24/2020	JMK
4-Chloroaniline - BS	EPA-8270	**56.0**			20	150	11/24/2020	JMK
4-Chloroaniline - BSD	EPA-8270	**59.6**	**6**		20	150	11/24/2020	JMK
Hexachlorobutadiene - BS	EPA-8270	**73.9**			20	150	11/24/2020	JMK
Hexachlorobutadiene - BSD	EPA-8270	**72.5**	**2**		20	150	11/24/2020	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**91.9**			44	113	11/24/2020	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**90.1**	**2**		44	113	11/24/2020	JMK
2-Methylnaphthalene - BS	EPA-8270	**79.9**			20	150	11/24/2020	JMK
2-Methylnaphthalene - BSD	EPA-8270	**78.2**	**2**		20	150	11/24/2020	JMK
1-Methylnaphthalene - BS	EPA-8270	**78.7**			20	150	11/24/2020	JMK
1-Methylnaphthalene - BSD	EPA-8270	**77.2**	**2**		20	150	11/24/2020	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**58.3**			20	150	11/24/2020	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**54.8**	**6**		20	150	11/24/2020	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**91.1**			20	150	11/24/2020	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**90.5**	**1**		20	150	11/24/2020	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**91.0**			20	150	11/24/2020	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**91.2**	**0**		20	150	11/24/2020	JMK
2-Chloronaphthalene - BS	EPA-8270	**90.7**			20	150	11/24/2020	JMK
2-Chloronaphthalene - BSD	EPA-8270	**89.0**	**2**		20	150	11/24/2020	JMK
2-Nitroaniline - BS	EPA-8270	**103**			20	150	11/24/2020	JMK
2-Nitroaniline - BSD	EPA-8270	**106**	**3**		20	150	11/24/2020	JMK
Acenaphthylene - BS	EPA-8270	**78.9**			20	150	11/24/2020	JMK
Acenaphthylene - BSD	EPA-8270	**79.0**	**0**		20	150	11/24/2020	JMK
Dimethylphthalate - BS	EPA-8270	**101**			20	150	11/24/2020	JMK
Dimethylphthalate - BSD	EPA-8270	**102**	**1**		20	150	11/24/2020	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**96.8**			20	150	11/24/2020	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**97.8**	**1**		20	150	11/24/2020	JMK
Acenaphthene - BS	EPA-8270	**87.8**			41	107	11/24/2020	JMK
Acenaphthene - BSD	EPA-8270	**87.0**	**1**		41	107	11/24/2020	JMK
3-Nitroaniline - BS	EPA-8270	**36.1**			20	150	11/24/2020	JMK
3-Nitroaniline - BSD	EPA-8270	**43.9**	**19**		20	150	11/24/2020	JMK
2,4-Dinitrophenol - BS	EPA-8270	**97.4**			20	150	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie
TASK #3

DATE: 12/1/2020
ALS SDG#: EV20110131
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2,4-Dinitrophenol - BSD	EPA-8270	**98.2**	**1**		20	150	11/24/2020	JMK
4-Nitrophenol - BS	EPA-8270	**16.3**			5	63	11/24/2020	JMK
4-Nitrophenol - BSD	EPA-8270	**15.4**	**6**		5	63	11/24/2020	JMK
Dibenzofuran - BS	EPA-8270	**94.0**			20	150	11/24/2020	JMK
Dibenzofuran - BSD	EPA-8270	**95.1**	**1**		20	150	11/24/2020	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**93.4**			53.1	136	11/24/2020	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**93.8**	**0**		53.1	136	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**86.3**			20	150	11/24/2020	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**86.4**	**0**		20	150	11/24/2020	JMK
Diethylphthalate - BS	EPA-8270	**105**			20	150	11/24/2020	JMK
Diethylphthalate - BSD	EPA-8270	**106**	**2**		20	150	11/24/2020	JMK
Fluorene - BS	EPA-8270	**97.9**			20	150	11/24/2020	JMK
Fluorene - BSD	EPA-8270	**98.3**	**0**		20	150	11/24/2020	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**95.9**			20	150	11/24/2020	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**93.4**	**3**		20	150	11/24/2020	JMK
4-Nitroaniline - BS	EPA-8270	**94.3**			20	150	11/24/2020	JMK
4-Nitroaniline - BSD	EPA-8270	**96.6**	**2**		20	150	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**106**			20	150	11/24/2020	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**110**	**4**		20	150	11/24/2020	JMK
Azobenzene - BS	EPA-8270	**112**			20	150	11/24/2020	JMK
Azobenzene - BSD	EPA-8270	**115**	**2**		20	150	11/24/2020	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**102**			20	150	11/24/2020	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**103**	**2**		20	150	11/24/2020	JMK
Hexachlorobenzene - BS	EPA-8270	**103**			20	150	11/24/2020	JMK
Hexachlorobenzene - BSD	EPA-8270	**107**	**3**		20	150	11/24/2020	JMK
Pentachlorophenol - BS	EPA-8270	**77.7**			33	124	11/24/2020	JMK
Pentachlorophenol - BSD	EPA-8270	**78.6**	**1**		33	124	11/24/2020	JMK
Phenanthrene - BS	EPA-8270	**94.7**			20	150	11/24/2020	JMK
Phenanthrene - BSD	EPA-8270	**96.4**	**2**		20	150	11/24/2020	JMK
Anthracene - BS	EPA-8270	**93.2**			20	150	11/24/2020	JMK
Anthracene - BSD	EPA-8270	**95.4**	**2**		20	150	11/24/2020	JMK
Carbazole - BS	EPA-8270	**108**			20	150	11/24/2020	JMK
Carbazole - BSD	EPA-8270	**109**	**1**		20	150	11/24/2020	JMK
Di-N-Butylphthalate - BS	EPA-8270	**94.1**			20	150	11/24/2020	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**98.1**	**4**		20	150	11/24/2020	JMK
Fluoranthene - BS	EPA-8270	**93.8**			20	150	11/24/2020	JMK
Fluoranthene - BSD	EPA-8270	**94.6**	**1**		20	150	11/24/2020	JMK
Pyrene - BS	EPA-8270	**83.9**			18	136	11/24/2020	JMK
Pyrene - BSD	EPA-8270	**87.5**	**4**		18	136	11/24/2020	JMK

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CERTIFICATE OF ANALYSIS

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CLIENT CONTACT: Thom Davis
CLIENT PROJECT: Brown & Caldwell Ph. III - McKenzie
TASK #3

DATE: 12/1/2020
ALS SDG#: EV20110131
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Butylbenzylphthalate - BS	EPA-8270	**71.4**			20	150	11/24/2020	JMK
Butylbenzylphthalate - BSD	EPA-8270	**74.9**	**5**		20	150	11/24/2020	JMK
Benzo[A]Anthracene - BS	EPA-8270	**87.1**			20	150	11/24/2020	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**88.8**	**2**		20	150	11/24/2020	JMK
Chrysene - BS	EPA-8270	**88.0**			20	150	11/24/2020	JMK
Chrysene - BSD	EPA-8270	**90.0**	**2**		20	150	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**77.1**			20	150	11/24/2020	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**80.1**	**4**		20	150	11/24/2020	JMK
Di-N-Octylphthalate - BS	EPA-8270	**80.1**			20	150	11/24/2020	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**81.3**	**1**		20	150	11/24/2020	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**85.9**			20	150	11/24/2020	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**84.1**	**2**		20	150	11/24/2020	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**93.2**			20	150	11/24/2020	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**100**	**8**		20	150	11/24/2020	JMK
Benzo[A]Pyrene - BS	EPA-8270	**90.0**			20	150	11/24/2020	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**91.9**	**2**		20	150	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**101**			20	150	11/24/2020	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**102**	**1**		20	150	11/24/2020	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**102**			20	150	11/24/2020	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**104**	**1**		20	150	11/24/2020	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**102**			20	150	11/24/2020	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**105**	**2**		20	150	11/24/2020	JMK

ALS Test Batch ID: R373708 - Water by EPA-245.1

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury (Dissolved) - BS	EPA-245.1	**107**			80.6	118	11/25/2020	RAL
Mercury (Dissolved) - BSD	EPA-245.1	**98.0**	**9**	SR1	80.6	118	11/25/2020	RAL

SR1 - RPD outside of control limits.

ALS Test Batch ID: 160151 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**98.0**			89.1	110	11/25/2020	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	**97.6**	**0**		89.1	110	11/25/2020	RAL
Barium (Dissolved) - BS	EPA-200.8	**98.4**			88.5	108	11/25/2020	RAL
Barium (Dissolved) - BSD	EPA-200.8	**99.5**	**1**		88.5	108	11/25/2020	RAL
Cadmium (Dissolved) - BS	EPA-200.8	**101**			89.4	110	11/25/2020	RAL
Cadmium (Dissolved) - BSD	EPA-200.8	**101**	**0**		89.4	110	11/25/2020	RAL

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	12/1/2020
		ALS SDG#:	EV20110131
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Thom Davis		
CLIENT PROJECT:	Brown & Caldwell Ph. III - McKenzie TASK #3		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Chromium (Dissolved) - BS	EPA-200.8	**100**			86.2	107	11/25/2020	RAL
Chromium (Dissolved) - BSD	EPA-200.8	**98.9**	**2**		86.2	107	11/25/2020	RAL
Lead (Dissolved) - BS	EPA-200.8	**98.7**			87.5	107	11/25/2020	RAL
Lead (Dissolved) - BSD	EPA-200.8	**97.9**	**1**		87.5	107	11/25/2020	RAL
Selenium (Dissolved) - BS	EPA-200.8	**99.1**			90.2	113	11/25/2020	RAL
Selenium (Dissolved) - BSD	EPA-200.8	**98.3**	**1**		90.2	113	11/25/2020	RAL
Silver (Dissolved) - BS	EPA-200.8	**98.3**			80	120	11/25/2020	RAL
Silver (Dissolved) - BSD	EPA-200.8	**100**	**2**		80	120	11/25/2020	RAL

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV20110131

TASK #3

Date 11/19/20 Page 1 Of 2

PROJECT ID: Brown/Caldwell Ph. III - Wekenzee
REPORT TO COMPANY: Whatcom Env. Svcs
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E-MAIL: tdavis@whatcom-es.com
INVOICE TO COMPANY:
ATTENTION: Same
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8	Pri Pol ☐	TAL ☐	Metals Other (Specify)	TCLP-Metals ☐	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-Dup.-1	11/18/20	9am	water	1		X	X						X			X					X									9	
2. WES-FEB-1		930		2		X	X						X			X					X									9	
3. MW-3		1030		3		X	X						X			X					X									9	
4. MW-1		1035		4		X	X						X			X					X									9	
5. MW-2		12pm		5		X	X						X			X					X									9	
6. MW-6		1210		6		X	X						X			X					X									9	
7. MW-14		1pm		7		X	X						X			X					X									9	
8. MW-13		140		8		X	X						X			X					X									9	
9. MW-9		215		9		X	X						X			X					X									9	
10. MW-8		305		10		X	X						X			X					X									9	

OTHER (Specify)

SPECIAL INSTRUCTIONS: Metals Samples field filtered into preserve bottle for dissolved Analysis

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Henry Cade (WES) 11/20/20 10:08
   Received By: ALS 11-20-20 1008
2. Relinquished By: _____
   Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

*Turnaround request less than standard may incur Rush Charges

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

Task #3

ALS Job# (Laboratory Use Only): EV20110131

Date 11/A/20 Page 2 Of 2

PROJECT ID: Brown/Caldwell Ph. III - McKenzie
REPORT TO COMPANY: Whatcom Env. Svcs
PROJECT MANAGER: Thom - Harold
ADDRESS: 228 E Champion #101
Bellingham, WA 98225
PHONE: 752-9571 P.O. #:
E-MAIL: tdavis@whatcom-es.com
INVOICE TO COMPANY: Same ↑
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☒ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐	Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-7	11/19/20	325p	water	11		X	X						X			X				X					9	
2. MW-11	11/19/20	910a		12		X	X						X			X				X					9	
3. MW-10	11/19/20	915		13		X	X						X			X				X					9	
4. MW-12	11/19/20	1030	↓	14		X	X						X			X				X					9	
5.																										
6.																										
7.																										
8.																										
9.																										
10.																										

OTHER (Specify)

SPECIAL INSTRUCTIONS: Metals Samples Field Filtered into preserved bottles for dissolved Analysis

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Henry Earle (WES) 11/20/20 10:08
   Received By: ALS 11-20-20 1008
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) | 3 | 1 | SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

APPENDIX H

2021 Waste Analysis Data Reports and Flow Charts

DANGEROUS WASTE DESIGNATION

Area 1* - p. 1

LISTED WASTES

Is the waste a product that has not been used or residue from clean-up of a spill of an unused product? ***[WAC 173-303-081]***

Yes ▶ Does the product contain more than one active ingredient?

Yes

No ▶ Is the ingredient listed on the "P" List in WAC 173-303-9903?

Yes ▶ The waste is a dangerous waste. Known as a "P" Listed discarded chemical product. Put the "P" number on the worksheet.

No

No ▶ Is the ingredient listed on the "U" List in WAC 173-303-9903?

Yes ▶ The waste is a dangerous waste. Known as a "U" Listed discarded chemical product. Put the "U" number on the worksheet.

No

Is the waste or the process producing the waste listed in WAC 173-303-9904? Or is the waste a residue from a clean-up of a spill of these listed wastes? Or WPCB? ***Refer to WAC 173-303-082***

Yes ▶ The waste is a dangerous waste. Known as an "F" or "K" or "W" Listed source. Put the "F" or "K" or "W" number on the worksheet.

No

CHARACTERISTIC WASTES

Is the waste a liquid with a flashpoint less than 140 F? -or-
Is the waste an ignitable solid? -or-
Is the waste an iginitable gas? -or-
Is the waste an oxidizer per 49 CFR 173.127 and 173.128?
Refer to WAC 173-303-090(5) **See Tip 1**

Yes ▶ The waste is a dangerous waste that exhibits the characteristics of ignitability. Put D001 on the worksheet.

No

Is the waste a water-based liquid with a pH less than or equal to 2.0 or greater than or equal to 12.5? -or-
Does the waste liquid corrode steel more than 0.25 in (6.35mm)/yr? -or-
The waste is solid and when mixed with 50% water has a pH less than or equal to 2.0 or greater than or equal to 12.5?
Refer to WAC 173-303-090(6)

Yes ▶ The waste is a dangerous waste that exhibits the characteristic of corrosivity. For liquids, put D002 on the worksheet. For solids, put WSC2 on the worksheet.

No pH 8.28

Does the waste have cyanide or sulfide in it? -or-
Is the waste water reactive? -or-
Is the waste unstable? -or-
Is the waste explosive?
Refer to WAC 173-303-090(7) **See Tip 2**

Yes ▶ The waste is a dangerous waste that exhibits the characteristic of reactivity. Put D003 on the worksheet.

No

Does the waste contain Toxicity Characteristic (TC) constituents from the TC List in 173-303-090(8)?

Yes ▶ Does the concentration of the TC constituents exceed the standard?

Yes ▶ The waste is a dangerous waste. Known as a TCLP waste. Put all of the "D" numbers that apply on the worksheet.

No

No Barium: 0.38 mg/L
Lead: 0.13 mg/L

You may not need to designate further under the Toxicity and/or Persistent Criteria. See below.

Did your waste designate as a "P" Listed Waste?

Note: Some "U" listed wastes may be WT01 under State Criteria, and have a 2.2 pound exclusion limit.

Yes ▶ No further designation is necessary.

No

No

Did your waste designate as a Listed or Characteristic Waste?

Yes ▶ Is the total amount of all the listed and characteristic wastes that you generate more than 220 pounds per month, or have you accumulated more than 2200 pounds of these waste types on-site?
See Tip 3

Yes ▶ Would designation under criteria change how the waste is managed?

Yes

No

No ▶ Go to Toxic Criteria Wastes

DANGEROUS WASTE DESIGNATION

Area 1* - p. 2

TOXIC CRITERIA WASTES

Is your waste an unused product?

Yes → Does it contain a "highly toxic" hazardous ingredient according to Section VI (acute and chronic health hazards section) of the MSDS?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of the whole waste?

Yes → Does the toxicity of the waste fall within one of the definitions of Toxic Category's X, A, or B in the table in WAC 173-303-100?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of some of the components in your waste?

No → You must test the toxicity of your waste. Refer to WAC 173-303-100(5)(c).

Does the toxicity of the waste fall within one of the definitions of Toxic Category's C or D in the table in WAC 173-303-100?

Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet. Go to Persistence Criteria Wastes.

No → Go to Persistent Criteria Wastes

Yes **

Determine which Toxic Category each of those components fits into from the table in WAC 173-303-100. If all of the components are less toxic than Toxic Category D, go to Persistence Criteria Wastes.

Box 1

Add together the concentrations of the components that are in the same Toxic Category and put the results below.

X		A		B		C		D	
ppm	or %	ppm	or %	ppm	or %	ppm	or %	ppm	or %
30.37		1325.67		1040.58		278.84		31.28	

Box 2

Do any of the concentrations from Box 1 equal or exceed these values?

X		A		B	
ppm	or %	ppm	or %	ppm	or %
10,000	1	100,000	10	1,000000	100

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Box 3a

Copy the % concentrations from Box 1 onto the dotted lines in the formula below, (to change ppm concentrations to %, divide the ppm value by 10,000). Place your answers on the lines in Box 3b. The % value for X from Box 1 should be copied directly to Box 3b.

%A	%B	%C	%D
0.132567	0.104058	0.027884	0.003128
+10	+100	÷1000	÷10,000

Box 3b

%X		%A		%B		%C		%D		Total
3.04E-03	+	1.33E-02	+	1.04E-03	+	2.79E-05	+	3.13E-07	=	0.0174

Does the total value from the formula equal or exceed 1.0?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Does the total value from the formula above exceed 0.001?

Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet.

No

Go to Persistence Criteria Wastes.

PERSISTENT CRITERIA WASTES

DANGEROUS WASTE DESIGNATION

Area 1* - p. 3

Does your waste contain polycyclicaromatic hydrocarbons, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of polycyclicaromatic hydrocarbons in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP03 on the worksheet. No further designation is necessary.

No → Total Average: 223.98 mg/kg **

No

Does your waste contain halogenated organic compounds, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of halogenated organic compounds in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP01 on the worksheet. No further designation is necessary.

No → Total Average: 0.09 mg/kg **

Is the total concentration of halogenated organic compounds in your waste greater than 100 ppm or .01%?

Yes → Your waste is a dangerous waste. Known as a Persistent DW. Put WP02 on the worksheet. No further designation is necessary.

No

No

~~Your waste is not a dangerous waste.~~

WT02

* See attached table for a list of samples included in this preliminary waste designation.

** See attached table for the average detected concentrations of toxic constituents in the waste.

TIP 1
These definitions correspond to U.S. Department of Transportation (USDOT) regulations. If your waste is an unused product that has USDOT flammable, ignitable solid, oxidizer, or peroxide labels then it meets the definition of ignitable waste.

TIP 2
The definition of reactive waste and explosive waste corresponds to USDOT regulations. If your waste is an unused product that carries these warning labels then the waste meets the definition of dangerous waste.

TIP 3
If you are designating more than one waste you should designate them all to this point before you go further so you can use the total amounts to answer the question in this box.

Soil Samples included in Area 1 Preliminary Waste Designation

Sample Name	Date
TRENCH 1 6FT	04/17/07
TRENCH 2 2.5FT	04/17/07
TRENCH 2 11FT	04/17/07
TRENCH 3 4FT	04/17/07
TRENCH 3 5FT	04/17/07
TRENCH 4 4.5FT S	04/18/07
TRENCH 4 6FT N	04/18/07
TRENCH 5 5FT	04/18/07
TRENCH 6 3FT	04/18/07
TRENCH 6 8FT	04/18/07
TRENCH 7 6FT	04/19/07
TRENCH 9 4FT	04/19/07
TRENCH 10 1FT	04/19/07
TRENCH 10 7FT	04/19/07
B-8 12.5FT	05/13/10
B-9 12.5FT	05/13/10
TP2012-1	05/02/12
TP2012-2	05/02/12
TP2012-3	05/02/12
TP2012-4	05/02/12
TP2012-5	05/02/12
TP2012-6	05/02/12
B-9-20 7.5FT	10/27/20
B-9-20 10FT	10/27/20
B-3-20 12.5FT	10/28/20
B-3-20 19FT	10/28/20
B-7-20 13FT	10/28/20
B-7-20 19FT	10/28/20
TP-7-20 2FT	11/10/20
P-1 Composite	07/08/21

Average Detected Soil Sample Concentrations in Area 1

Ingredient	CAS #	TCLP Limit (mg/L)	State-Only Toxic Category	PAH	HOC	Average TCLP (mg/L)	Average Total (mg/kg)	TCLP Sample Count	Total Sample Count
Cadmium	7440-43-9	1	X	No	No		4.40	7	17
Fluoranthene	206-44-0		X	Yes	No		25.24		14
Mercury	7439-97-6	0.2	X	No	No		0.10	7	17
Silver	7440-22-4	5	X	No	No		0.63	7	14
Benzoic Acid	65-85-0		A	No	No		1.80		13
Copper	7440-50-8		A	No	No		1,207.43		7
Nickel	7440-02-0		A	No	No		76.29		7
Phenanthrene	85-01-8		A	Yes	No		40.16		14
Acenaphthene	83-32-9		B	Yes	No		50.04		14
Anthracene	120-12-7		B	Yes	No		28.16		14
Arsenic	7440-38-2	5	B	No	No		17.85	7	17
Fluorene	86-73-7		B	No	No		43.61		14
Lead	7439-92-1	5	B	No	No	0.13	411.07	7	17
Zinc	7440-66-6		B	No	No		489.86		7
1,2,4-Trimethylbenzene	95-63-6		C	No	No		0.02		11
1-Methylnaphthalene	90-12-0		C	No	No		43.40		14
Antimony	7440-36-0		C	No	No		39.04		7
Benzene	71-43-2	0.5	C	No	No		0.09	1	23
Benzo(A)Pyrene	50-32-8		C	Yes	No		5.78		14
Chromium	7440-47-3	5	C	No	No		81.79	7	17
Chrysene	218-01-9		C	Yes	No		20.51		14
Dibenzofuran	132-64-9		C	No	No		16.00		12
Naphthalene	91-20-3		C	No	No		7.58		14
Pyrene	129-00-0		C	Yes	No		21.74		14
Selenium	7782-49-2	1	C	No	No		1.60	7	14
Xylenes (Mixed)	1330-20-7		C	No	No		41.30		23
1,3,5-Trimethylbenzene	108-67-8		D	No	No		0.02		11
2-Methylnaphthalene	91-57-6		D	No	No		25.09		14
Acetone	67-64-1		D	No	No		0.59		11
Dichlorodifluoromethane	75-71-8		D	No	Yes		0.02		11
Dimethylphthalate	131-11-3		D	No	No		0.77		13
Ethylbenzene	100-41-4		D	No	No		4.30		23
Methylene Chloride	75-09-2		D	No	Yes		0.07		11
Toluene	108-88-3		D	No	No		0.42		23
Barium	7440-39-3	100	Non-toxic	No	No	0.38	70.63	7	8
Di(2-ethylhexyl) phthalate	117-81-7		Non-toxic	No	No		0.84		12
Acenaphthylene	208-96-8		No Data	Yes	No		3.65		14
Benzo(A)Anthracene	56-55-3		No Data	Yes	No		13.83		14
Benzo(B)Fluoranthene	205-99-2		No Data	Yes	No		4.52		14
Benzo(G,H,I)Perylene	191-24-2		No Data	Yes	No		2.48		14
Benzo(K)Fluoranthene	207-08-9		No Data	Yes	No		1.94		14
Dibenz(A,H)Anthracene	53-70-3		No Data	Yes	No		3.84		14
Indeno(1,2,3-Cd)Pyrene	193-39-5		No Data	Yes	No		2.10		14

DANGEROUS WASTE DESIGNATION

P-1 Composite - 7/8/21 - p. 1

LISTED WASTES

Is the waste a product that has not been used or residue from clean-up of a spill of an unused product? ***[WAC 173-303-081]***

Yes → Does the product contain more than one active ingredient?

No → Is the ingredient listed on the "P" List in WAC 173-303-9903?

Yes → The waste is a dangerous waste. Known as a "P" Listed discarded chemical product. Put the "P" number on the worksheet.

No → Is the ingredient listed on the "U" List in WAC 173-303-9903?

Yes → The waste is a dangerous waste. Known as a "U" Listed discarded chemical product. Put the "U" number on the worksheet.

No → Is the waste or the process producing the waste listed in WAC 173-303-9904? Or is the waste a residue from a clean-up of a spill of these listed wastes? Or WPCB? ***Refer to WAC 173-303-082***

Yes → The waste is a dangerous waste. Known as an "F" or "K" or "W" Listed source. Put the "F" or "K" or "W" number on the worksheet.

No

CHARACTERISTIC WASTES

Is the waste a liquid with a flashpoint less than 140 F? -or-
Is the waste an ignitable solid? -or-
Is the waste an iginitable gas? -or-
Is the waste an oxidizer per 49 CFR 173.127 and 173.128?
Refer to WAC 173-303-090(5) **See Tip 1**

Yes → The waste is a dangerous waste that exhibits the characteristics of ignitability. Put D001 on the worksheet.

No

Is the waste a water-based liquid with a pH less than or equal to 2.0 or greater than or equal to 12.5? -or-
Does the waste liquid corrode steel more than 0.25 in (6.35mm)/yr? -or-
The waste is solid and when mixed with 50% water has a pH less than or equal to 2.0 or greater than or equal to 12.5?
Refer to WAC 173-303-090(6)

Yes → The waste is a dangerous waste that exhibits the characteristic of corrosivity. For liquids, put D002 on the worksheet. For solids, put WSC2 on the worksheet.

No pH: 8.28

Does the waste have cyanide or sulfide in it? -or-
Is the waste water reactive? -or-
Is the waste unstable? -or-
Is the waste explosive?
Refer to WAC 173-303-090(7) **See Tip 2**

Yes → The waste is a dangerous waste that exhibits the characteristic of reactivity. Put D003 on the worksheet.

No

Does the waste contain Toxicity Characteristic (TC) constituents from the TC List in 173-303-090(8)?

Yes → Does the concentration of the TC constituents exceed the standard?

Yes → The waste is a dangerous waste. Known as a TCLP waste. Put all of the "D" numbers that apply on the worksheet.

No Barium: 0.41 mg/L
Lead: 0.059 mg/L

No

You may not need to designate further under the Toxicity and/or Persistent Criteria. See below.

Did your waste designate as a "P" Listed Waste?

Note: Some "U" listed wastes may be WT01 under State Criteria, and have a 2.2 pound exclusion limit.

Yes → No further designation is necessary.

No

Did your waste designate as a Listed or Characteristic Waste?

Yes → Is the total amount of all the listed and characteristic wastes that you generate more than 220 pounds per month, or have you accumulated more than 2200 pounds of these waste types on-site?
See Tip 3

Yes → Would designation under criteria change how the waste is managed?

Yes → Go to Toxic Criteria Wastes

No

No → Go to Toxic Criteria Wastes

DANGEROUS WASTE DESIGNATION

P-1 Composite - 7/8/21 - p. 2

TOXIC CRITERIA WASTES

Is your waste an unused product? — Yes → Does it contain a "highly toxic" hazardous ingredient according to Section VI (acute and chronic health hazards section) of the MSDS? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of the whole waste? — Yes → Does the toxicity of the waste fall within one of the definitions of Toxic Category's X, A, or B in the table in WAC 173-303-100? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Does the toxicity of the waste fall within one of the definitions of Toxic Category's C or D in the table in WAC 173-303-100? — Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet. Go to Persistence Criteria Wastes.

No

Do you know the toxicity of some of the components in your waste? — No → You must test the toxicity of your waste. Refer to WAC 173-303-100(5)(c).

No → Go to Persistent Criteria Wastes

Yes

Determine which Toxic Category each of those components fits into from the table in WAC 173-303-100. If all of the components are less toxic than Toxic Category D, go to Persistence Criteria Wastes.

Category X (mg/kg)
- Cadmium: 0.26
- Fluoranthene: 0.12
- Mercury: 0.029

Category A (mg/kg)
- Phenanthrene: 0.18

Category B (mg/kg)
- Arsenic: 9.4
- Lead: 37

Box 1

Add together the concentrations of the components that are in the same Toxic Category and put the results below.

X		A		B		C		D	
ppm	or %	ppm	or %	ppm	or %	ppm	or %	ppm	or %
0.41		0.18		46.40		43.18		0	

Box 2

Do any of the concentrations from Box 1 equal or exceed these values?

X		A		B	
ppm	or %	ppm	or %	ppm	or %
10,000	1	100,000	10	1,000000	100

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Category C (mg/kg)
- Chromium: 43
- Pyrene: 0.18

Non-toxic (mg/kg)
- Barium: 110
- Di(2-ethylhexyl) phthalate: 0.28

Box 3a

Copy the % concentrations from Box 1 onto the dotted lines in the formula below, (to change ppm concentrations to %, divide the ppm value by 10,000). Place your answers on the lines in Box 3b. The % value for X from Box 1 should be copied directly to Box 3b.

%A	%B	%C	%D
0.000018	0.00464	0.004318	0
+10	+100	÷1000	÷10,000

Box 3b

%X	%A	%B	%C	%D		Total
4.09E-05	+ 1.80E-06 +	4.64E-05 +	4.32E-06 +	0	=	9.00E-05

Does the total value from the formula equal or exceed 1.0? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Does the total value from the formula above exceed 0.001? — Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet.

No

Go to Persistence Criteria Wastes.

DANGEROUS WASTE DESIGNATION

P-1 Composite - 7/8/21 - p. 3

PERSISTENT CRITERIA WASTES

Does your waste contain polycyclicaromatic hydrocarbons, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of polycyclicaromatic hydrocarbons in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP03 on the worksheet. No further designation is necessary.

No

Fluoranthene: 0.12 mg/kg
Phenanthrene: 0.18 mg/kg
Pyrene: 0.18 mg/kg

No → Does your waste contain halogenated organic compounds, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of halogenated organic compounds in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP01 on the worksheet. No further designation is necessary.

No

Is the total concentration of halogenated organic compounds in your waste greater than 100 ppm or .01%?

Yes → Your waste is a dangerous waste. Known as a Persistent DW. Put WP02 on the worksheet. No further designation is necessary.

No

No

Your waste is not a dangerous waste.

TIP 1
These definitions correspond to U.S. Department of Transportation (USDOT) regulations. If your waste is an unused product that has USDOT flammable, ignitable solid, oxidizer, or peroxide labels then it meets the definition of ignitable waste.

TIP 2
The definition of reactive waste and explosive waste corresponds to USDOT regulations. If your waste is an unused product that carries these warning labels then the waste meets the definition of dangerous waste.

TIP 3
If you are designating more than one waste you should designate them all to this point before you go further so you can use the total amounts to answer the question in this box.

July 22, 2021

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On July 9th, 1 sample was received by our laboratory and assigned our laboratory project number EV21070037. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/10/2021	KLS
TPH-Diesel Range	NWTPH-DX	**170**	120	5	MG/KG	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	**570**	250	5	MG/KG	07/12/2021	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Acetone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Toluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Styrene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Carbon Tetrachloride (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,1-Dichloroethene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
2-Butanone (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Chloroform (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,2-Dichloroethane (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Benzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Trichloroethene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Chlorobenzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,4-Dichlorobenzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Phenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Aniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
Phenanthrene	EPA-8270	**180**	100	1	UG/KG	07/12/2021	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluoranthene	EPA-8270	**120**	100	1	UG/KG	07/12/2021	JMK
Pyrene	EPA-8270	**180**	100	1	UG/KG	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**280**	100	1	UG/KG	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pyridine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitrosodimethylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Aniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Chloroethyl)Ether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Chlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,3-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,4-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzyl Alcohol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,2-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
3&4-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachloroethane (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Nitrobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Isophorone (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Nitrophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dimethylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzoic Acid (TCLP)	EPA-8270/1311	U	10	1	UG/L	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,2,4-Trichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Naphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chloroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,6-Dichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorobutadiene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chloro-3-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Methylnaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1-Methylnaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorocyclopentadiene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4,6-Trichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4,5-Trichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Chloronaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Nitroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Acenaphthylene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dimethylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,6-Dinitrotoluene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Acenaphthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
3-Nitroaniline (TCLP)	EPA-8270/1311	U	5.0	1	UG/L	07/14/2021	JMK
2,4-Dinitrophenol (TCLP)	EPA-8270/1311	U	10	1	UG/L	07/14/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitrophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dibenzofuran (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dinitrotoluene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Diethylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Fluorene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chlorophenyl-Phenylether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Nitroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4,6-Dinitro-2-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitrosodiphenylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Azobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Bromophenyl-Phenylether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Pentachlorophenol (TCLP)	EPA-8270/1311	U	5.0	1	UG/L	07/14/2021	JMK
Phenanthrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Carbazole (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Di-N-Butylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Butylbenzylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[A]Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Chrysene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Di-N-Octylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[B]Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[K]Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[A]Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dibenz[A,H]Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[G,H,I]Perylene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
PCB-1016	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1221	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1232	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1242	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1248	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1254	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1260	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1268	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
pH	EPA-9045	**8.28**	± 0.01	1	S.U.	07/15/2021	RPB
Mercury	EPA-7471	**0.029**	0.020	1	MG/KG	07/14/2021	RAL
Mercury (TCLP)	EPA-7470/1311	U	0.00020	1	MG/L	07/14/2021	RAL
Arsenic	EPA-6020	**9.4**	0.20	1	MG/KG	07/09/2021	EBS
Barium	EPA-6020	**110**	0.10	1	MG/KG	07/09/2021	EBS
Cadmium	EPA-6020	**0.26**	0.10	1	MG/KG	07/09/2021	EBS
Chromium	EPA-6020	**43**	0.10	1	MG/KG	07/09/2021	EBS
Lead	EPA-6020	**37**	0.10	1	MG/KG	07/09/2021	EBS
Selenium	EPA-6020	U	1.0	1	MG/KG	07/09/2021	EBS
Silver	EPA-6020	U	0.10	1	MG/KG	07/09/2021	EBS
Arsenic (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Barium (TCLP)	EPA-6020/1311	**0.41**	0.031	6.25	MG/L	07/14/2021	RAL
Cadmium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Chromium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Lead (TCLP)	EPA-6020/1311	**0.059**	0.031	6.25	MG/L	07/14/2021	RAL
Selenium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Silver (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**80.1**	07/10/2021	KLS
C25 5X Dilution	NWTPH-DX	**109**	07/12/2021	JNF
1,2-Dichloroethane-d4	EPA-8260	**94.1**	07/09/2021	DLC
Toluene-d8	EPA-8260	**101**	07/09/2021	DLC
4-Bromofluorobenzene	EPA-8260	**122**	07/09/2021	DLC
1,2-Dichloroethane-d4	EPA-8260/1311	**105**	07/20/2021	DLC
Toluene-d8	EPA-8260/1311	**98.0**	07/20/2021	DLC
4-Bromofluorobenzene	EPA-8260/1311	**106**	07/20/2021	DLC
2-Fluorophenol	EPA-8270	**106**	07/12/2021	JMK
Phenol-d5	EPA-8270	**97.4**	07/12/2021	JMK
Nitrobenzene-d5	EPA-8270	**84.4**	07/12/2021	JMK
2-Fluorobiphenyl	EPA-8270	**76.6**	07/12/2021	JMK
2,4,6-Tribromophenol	EPA-8270	**68.6**	07/12/2021	JMK
Terphenyl-d14	EPA-8270	**92.6**	07/12/2021	JMK
2-Fluorophenol	EPA-8270/1311	**114 GS4**	07/14/2021	JMK
Phenol-d5	EPA-8270/1311	**91.5**	07/14/2021	JMK
Nitrobenzene-d5	EPA-8270/1311	**90.2**	07/14/2021	JMK
2-Fluorobiphenyl	EPA-8270/1311	**68.3**	07/14/2021	JMK
2,4,6-Tribromophenol	EPA-8270/1311	**74.9**	07/14/2021	JMK

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CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270/1311	**130**	07/14/2021	JMK
TCMX	EPA-8082	**47.4**	07/13/2021	JMK
DCB	EPA-8082	**49.3**	07/13/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken. Chromatogram indicates that it is likely that sample contains light oil/lube oil.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MBG-070921S - Batch 167837 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	07/09/2021	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167941 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	07/12/2021	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167827 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Acetone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Butanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Benzene	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Toluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Styrene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
o-Xylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromoform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Naphthalene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R388001 - Batch R388001 - TCLP Extract by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Carbon Tetrachloride (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,1-Dichloroethene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
2-Butanone (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Chloroform (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,2-Dichloroethane (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Benzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Trichloroethene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Tetrachloroethylene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Chlorobenzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,4-Dichlorobenzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071221S - Batch 167890 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Phenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Aniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Isophorone	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071221S - Batch 167890 - Soil by EPA-8270

Benzoic Acid	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Naphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dimethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluorene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Azobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Carbazole	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

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228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY BLANK RESULTS

MB-071221S - Batch 167890 - Soil by EPA-8270

Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Chrysene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Phenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Aniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Chlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzyl Alcohol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
3&4-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachloroethane	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Nitrobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Isophorone	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Nitrophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzoic Acid	EPA-8270	U	UG/L	10	07/20/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

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CERTIFICATE OF ANALYSIS

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		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

Naphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chloroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorobutadiene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Methylnaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1-Methylnaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Chloronaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Nitroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Acenaphthylene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dimethylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Acenaphthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
3-Nitroaniline	EPA-8270	U	UG/L	5.0	07/20/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/L	10	07/20/2021	JMK
4-Nitrophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dibenzofuran	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Diethylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Fluorene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Nitroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Azobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Pentachlorophenol	EPA-8270	U	UG/L	5.0	07/20/2021	JMK
Phenanthrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Carbazole	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Butylbenzylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Chrysene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

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		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071221S - Batch 167897 - Soil by EPA-8082

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
PCB-1016	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1221	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1232	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1242	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1248	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1254	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1260	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1268	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387467 - Batch R387467 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387974 - Batch R387974 - TCLP Extract by EPA-7470

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7470	U	MG/L	0.00020	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167802 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	07/09/2021	EBS
Barium	EPA-6020	U	MG/KG	0.12	07/09/2021	EBS

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228 E. Champion St., Suite 101
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CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-070921S - Batch 167802 - Soil by EPA-6020

Cadmium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Chromium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Lead	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Selenium	EPA-6020	U	MG/KG	1.0	07/09/2021	EBS
Silver	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387975 - Batch R387975 - TCLP Extract by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Barium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Cadmium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Chromium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Lead	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Selenium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Silver	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 167837 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**88.5**			66.5	122.7	07/09/2021	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**90.3**	**2**		66.5	122.7	07/09/2021	KLS

ALS Test Batch ID: 167941 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**100**			75.5	122.1	07/12/2021	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**98.7**	**1**		75.5	122.1	07/12/2021	JNF

ALS Test Batch ID: 167827 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**90.7**			50	150	07/09/2021	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**85.9**	**5**		50	150	07/09/2021	DLC
Chloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Chloromethane - BSD	EPA-8260	**113**	**4**		50	150	07/09/2021	DLC
Vinyl Chloride - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
Vinyl Chloride - BSD	EPA-8260	**118**	**4**		50	150	07/09/2021	DLC
Bromomethane - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
Bromomethane - BSD	EPA-8260	**105**	**3**		50	150	07/09/2021	DLC
Chloroethane - BS	EPA-8260	**120**			50	150	07/09/2021	DLC
Chloroethane - BSD	EPA-8260	**115**	**5**		50	150	07/09/2021	DLC
Carbon Tetrachloride - BS	EPA-8260	**112**			50	150	07/09/2021	DLC
Carbon Tetrachloride - BSD	EPA-8260	**105**	**6**		50	150	07/09/2021	DLC
Trichlorofluoromethane - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Trichlorofluoromethane - BSD	EPA-8260	**108**	**6**		50	150	07/09/2021	DLC
Carbon Disulfide - BS	EPA-8260	**124**			50	150	07/09/2021	DLC
Carbon Disulfide - BSD	EPA-8260	**116**	**6**		50	150	07/09/2021	DLC
Acetone - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Acetone - BSD	EPA-8260	**101**	**11**		50	150	07/09/2021	DLC
1,1-Dichloroethene - BS	EPA-8260	**118**			70	130	07/09/2021	DLC
1,1-Dichloroethene - BSD	EPA-8260	**111**	**6**		70	130	07/09/2021	DLC
Methylene Chloride - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
Methylene Chloride - BSD	EPA-8260	**92.4**	**26**	SR1	50	150	07/09/2021	DLC
Acrylonitrile - BS	EPA-8260	**127**			50	150	07/09/2021	DLC
Acrylonitrile - BSD	EPA-8260	**114**	**11**		50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**112**	**3**		50	150	07/09/2021	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**108**			50	150	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Trans-1,2-Dichloroethene - BSD	EPA-8260	**104**	**4**		50	150	07/09/2021	DLC
1,1-Dichloroethane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,1-Dichloroethane - BSD	EPA-8260	**96.9**	**16**		50	150	07/09/2021	DLC
2-Butanone - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
2-Butanone - BSD	EPA-8260	**112**	**7**		50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**103**	**9**		50	150	07/09/2021	DLC
2,2-Dichloropropane - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
2,2-Dichloropropane - BSD	EPA-8260	**113**	**9**		50	150	07/09/2021	DLC
Bromochloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Bromochloromethane - BSD	EPA-8260	**111**	**6**		50	150	07/09/2021	DLC
Chloroform - BS	EPA-8260	**119**			50	150	07/09/2021	DLC
Chloroform - BSD	EPA-8260	**114**	**4**		50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**106**	**6**		50	150	07/09/2021	DLC
1,1-Dichloropropene - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
1,1-Dichloropropene - BSD	EPA-8260	**100**	**8**		50	150	07/09/2021	DLC
1,2-Dichloroethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
1,2-Dichloroethane - BSD	EPA-8260	**105**	**5**		50	150	07/09/2021	DLC
Benzene - BS	EPA-8260	**102**			75	138	07/09/2021	DLC
Benzene - BSD	EPA-8260	**98.5**	**4**		75	138	07/09/2021	DLC
Trichloroethene - BS	EPA-8260	**107**			75	136	07/09/2021	DLC
Trichloroethene - BSD	EPA-8260	**103**	**4**		75	136	07/09/2021	DLC
1,2-Dichloropropane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,2-Dichloropropane - BSD	EPA-8260	**103**	**10**		50	150	07/09/2021	DLC
Dibromomethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Dibromomethane - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Bromodichloromethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Bromodichloromethane - BSD	EPA-8260	**106**	**4**		50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**102**			50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**98.6**	**3**		50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Toluene - BS	EPA-8260	**104**			71.6	122.1	07/09/2021	DLC
Toluene - BSD	EPA-8260	**103**	**2**		71.6	122.1	07/09/2021	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**104**	**6**		50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**96.1**	**2**		50	150	07/09/2021	DLC
2-Hexanone - BS	EPA-8260	**106**			50	150	07/09/2021	DLC

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CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Hexanone - BSD	EPA-8260	**104**	**1**		50	150	07/09/2021	DLC
1,3-Dichloropropane - BS	EPA-8260	**96.6**			50	150	07/09/2021	DLC
1,3-Dichloropropane - BSD	EPA-8260	**99.7**	**3**		50	150	07/09/2021	DLC
Tetrachloroethylene - BS	EPA-8260	**97.1**			50	150	07/09/2021	DLC
Tetrachloroethylene - BSD	EPA-8260	**96.1**	**1**		50	150	07/09/2021	DLC
Dibromochloromethane - BS	EPA-8260	**98.8**			50	150	07/09/2021	DLC
Dibromochloromethane - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,2-Dibromoethane - BS	EPA-8260	**99.2**			50	150	07/09/2021	DLC
1,2-Dibromoethane - BSD	EPA-8260	**98.4**	**1**		50	150	07/09/2021	DLC
Chlorobenzene - BS	EPA-8260	**96.9**			79	128	07/09/2021	DLC
Chlorobenzene - BSD	EPA-8260	**96.9**	**0**		79	128	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**98.4**			50	150	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**92.9**	**6**		50	150	07/09/2021	DLC
Ethylbenzene - BS	EPA-8260	**94.8**			50	150	07/09/2021	DLC
Ethylbenzene - BSD	EPA-8260	**94.9**	**0**		50	150	07/09/2021	DLC
m,p-Xylene - BS	EPA-8260	**91.5**			50	150	07/09/2021	DLC
m,p-Xylene - BSD	EPA-8260	**91.5**	**0**		50	150	07/09/2021	DLC
Styrene - BS	EPA-8260	**98.7**			50	150	07/09/2021	DLC
Styrene - BSD	EPA-8260	**98.9**	**0**		50	150	07/09/2021	DLC
o-Xylene - BS	EPA-8260	**98.6**			50	150	07/09/2021	DLC
o-Xylene - BSD	EPA-8260	**95.5**	**3**		50	150	07/09/2021	DLC
Bromoform - BS	EPA-8260	**106**			50	150	07/09/2021	DLC
Bromoform - BSD	EPA-8260	**107**	**1**		50	150	07/09/2021	DLC
Isopropylbenzene - BS	EPA-8260	**100**			50	150	07/09/2021	DLC
Isopropylbenzene - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**97.2**			50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**96.7**	**1**		50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**95.1**			50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**97.7**	**3**		50	150	07/09/2021	DLC
Bromobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Bromobenzene - BSD	EPA-8260	**95.8**	**4**		50	150	07/09/2021	DLC
N-Propyl Benzene - BS	EPA-8260	**91.9**			50	150	07/09/2021	DLC
N-Propyl Benzene - BSD	EPA-8260	**91.0**	**1**		50	150	07/09/2021	DLC
2-Chlorotoluene - BS	EPA-8260	**92.5**			50	150	07/09/2021	DLC
2-Chlorotoluene - BSD	EPA-8260	**91.6**	**1**		50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**92.4**			50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**92.1**	**0**		50	150	07/09/2021	DLC
4-Chlorotoluene - BS	EPA-8260	**90.5**			50	150	07/09/2021	DLC
4-Chlorotoluene - BSD	EPA-8260	**90.1**	**0**		50	150	07/09/2021	DLC
T-Butyl Benzene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC

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WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
T-Butyl Benzene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**92.5**	**0**		50	150	07/09/2021	DLC
S-Butyl Benzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
S-Butyl Benzene - BSD	EPA-8260	**93.4**	**2**		50	150	07/09/2021	DLC
P-Isopropyltoluene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC
P-Isopropyltoluene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**91.8**			50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**90.8**	**1**		50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**86.1**			50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**85.8**	**0**		50	150	07/09/2021	DLC
N-Butylbenzene - BS	EPA-8260	**93.0**			50	150	07/09/2021	DLC
N-Butylbenzene - BSD	EPA-8260	**90.4**	**3**		50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**94.5**	**0**		50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**95.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**95.6**	**3**		50	150	07/09/2021	DLC
Hexachlorobutadiene - BS	EPA-8260	**93.6**			50	150	07/09/2021	DLC
Hexachlorobutadiene - BSD	EPA-8260	**92.0**	**2**		50	150	07/09/2021	DLC
Naphthalene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Naphthalene - BSD	EPA-8260	**93.8**	**2**		50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**93.5**			50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**94.7**	**1**		50	150	07/09/2021	DLC

SR1 - RPD outside of control limits.

ALS Test Batch ID: R388001 - TCLP Extract by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene (ZHE) - BS	EPA-8260/1311	**119**			80.2	139	07/20/2021	DLC
1,1-Dichloroethene (ZHE) - BSD	EPA-8260/1311	**116**	**3**		80.2	139	07/20/2021	DLC
Benzene (ZHE) - BS	EPA-8260/1311	**118**			79.2	138	07/20/2021	DLC
Benzene (ZHE) - BSD	EPA-8260/1311	**115**	**3**		79.2	138	07/20/2021	DLC
Trichloroethene (ZHE) - BS	EPA-8260/1311	**134**			80	134	07/20/2021	DLC
Trichloroethene (ZHE) - BSD	EPA-8260/1311	**130**	**2**		80	134	07/20/2021	DLC
Chlorobenzene (ZHE) - BS	EPA-8260/1311	**111**			78	130	07/20/2021	DLC
Chlorobenzene (ZHE) - BSD	EPA-8260/1311	**110**	**1**		78	130	07/20/2021	DLC

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ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 167890 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**77.9**			20	150	07/12/2021	JMK
Pyridine - BSD	EPA-8270	**92.7**	**17**		20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**90.8**			20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**86.1**	**5**		20	150	07/12/2021	JMK
Phenol - BS	EPA-8270	**96.9**			36.1	131	07/12/2021	JMK
Phenol - BSD	EPA-8270	**110**	**13**		36.1	131	07/12/2021	JMK
Aniline - BS	EPA-8270	**67.7**			20	150	07/12/2021	JMK
Aniline - BSD	EPA-8270	**69.6**	**3**		20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**65.5**			20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**87.6**	**29**		20	150	07/12/2021	JMK
2-Chlorophenol - BS	EPA-8270	**80.0**			59.9	111	07/12/2021	JMK
2-Chlorophenol - BSD	EPA-8270	**90.4**	**12**	SR1	59.9	111	07/12/2021	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**71.3**			20	150	07/12/2021	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**81.5**	**13**		20	150	07/12/2021	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**70.4**			44.3	122	07/12/2021	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**79.6**	**12**		44.3	122	07/12/2021	JMK
Benzyl Alcohol - BS	EPA-8270	**83.7**			20	150	07/12/2021	JMK
Benzyl Alcohol - BSD	EPA-8270	**92.9**	**10**		20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**73.2**			20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**82.0**	**11**		20	150	07/12/2021	JMK
2-Methylphenol - BS	EPA-8270	**84.4**			20	150	07/12/2021	JMK
2-Methylphenol - BSD	EPA-8270	**92.4**	**9**		20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**122**	**17**		20	150	07/12/2021	JMK
3&4-Methylphenol - BS	EPA-8270	**87.5**			20	150	07/12/2021	JMK
3&4-Methylphenol - BSD	EPA-8270	**95.6**	**9**		20	150	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**87.0**			31.6	134	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**80.1**	**8**		31.6	134	07/12/2021	JMK
Hexachloroethane - BS	EPA-8270	**65.0**			20	150	07/12/2021	JMK
Hexachloroethane - BSD	EPA-8270	**73.3**	**12**		20	150	07/12/2021	JMK
Nitrobenzene - BS	EPA-8270	**83.0**			20	150	07/12/2021	JMK
Nitrobenzene - BSD	EPA-8270	**96.1**	**15**		20	150	07/12/2021	JMK
Isophorone - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
Isophorone - BSD	EPA-8270	**87.2**	**14**		20	150	07/12/2021	JMK
2-Nitrophenol - BS	EPA-8270	**74.7**			20	150	07/12/2021	JMK
2-Nitrophenol - BSD	EPA-8270	**87.3**	**16**		20	150	07/12/2021	JMK
2,4-Dimethylphenol - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**80.2**	**5**		20	150	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**80.7**			20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**93.6**	**15**		20	150	07/12/2021	JMK
2,4-Dichlorophenol - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**89.6**	**12**		20	150	07/12/2021	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**64.2**			44.6	122	07/12/2021	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**74.4**	**15**		44.6	122	07/12/2021	JMK
Naphthalene - BS	EPA-8270	**73.5**			20	150	07/12/2021	JMK
Naphthalene - BSD	EPA-8270	**84.5**	**14**		20	150	07/12/2021	JMK
4-Chloroaniline - BS	EPA-8270	**63.6**			20	150	07/12/2021	JMK
4-Chloroaniline - BSD	EPA-8270	**79.8**	**22**		20	150	07/12/2021	JMK
Hexachlorobutadiene - BS	EPA-8270	**59.4**			20	150	07/12/2021	JMK
Hexachlorobutadiene - BSD	EPA-8270	**68.7**	**14**		20	150	07/12/2021	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**87.9**			49.2	135	07/12/2021	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**96.1**	**9**		49.2	135	07/12/2021	JMK
2-Methylnaphthalene - BS	EPA-8270	**75.2**			20	150	07/12/2021	JMK
2-Methylnaphthalene - BSD	EPA-8270	**85.1**	**12**		20	150	07/12/2021	JMK
1-Methylnaphthalene - BS	EPA-8270	**77.4**			20	150	07/12/2021	JMK
1-Methylnaphthalene - BSD	EPA-8270	**87.5**	**12**		20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**41.7**			20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**50.7**	**19**		20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**69.5**			20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**76.9**	**10**		20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**72.2**			20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**79.9**	**10**		20	150	07/12/2021	JMK
2-Chloronaphthalene - BS	EPA-8270	**75.8**			20	150	07/12/2021	JMK
2-Chloronaphthalene - BSD	EPA-8270	**85.0**	**11**		20	150	07/12/2021	JMK
2-Nitroaniline - BS	EPA-8270	**85.0**			20	150	07/12/2021	JMK
2-Nitroaniline - BSD	EPA-8270	**96.0**	**12**		20	150	07/12/2021	JMK
Acenaphthylene - BS	EPA-8270	**80.8**			20	150	07/12/2021	JMK
Acenaphthylene - BSD	EPA-8270	**91.5**	**12**		20	150	07/12/2021	JMK
Dimethylphthalate - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
Dimethylphthalate - BSD	EPA-8270	**89.8**	**12**		20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**81.9**			20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**92.2**	**12**		20	150	07/12/2021	JMK
Acenaphthene - BS	EPA-8270	**76.1**			49.3	117	07/12/2021	JMK
Acenaphthene - BSD	EPA-8270	**85.7**	**12**		49.3	117	07/12/2021	JMK
3-Nitroaniline - BS	EPA-8270	**473**		SQ1	20	150	07/12/2021	JMK
3-Nitroaniline - BSD	EPA-8270	**562**	**17**	DUP05	20	150	07/12/2021	JMK
2,4-Dinitrophenol - BS	EPA-8270	**89.6**			20	150	07/12/2021	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**106**	**16**		20	150	07/12/2021	JMK
4-Nitrophenol - BS	EPA-8270	**68.6**			29.8	137	07/12/2021	JMK

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CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Nitrophenol - BSD	EPA-8270	**79.9**	**15**		29.8	137	07/12/2021	JMK
Dibenzofuran - BS	EPA-8270	**79.2**			20	150	07/12/2021	JMK
Dibenzofuran - BSD	EPA-8270	**88.2**	**11**		20	150	07/12/2021	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**85.8**			55.3	130	07/12/2021	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**98.2**	**13**		55.3	130	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**69.0**			20	150	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**78.5**	**13**		20	150	07/12/2021	JMK
Diethylphthalate - BS	EPA-8270	**82.8**			20	150	07/12/2021	JMK
Diethylphthalate - BSD	EPA-8270	**93.9**	**13**		20	150	07/12/2021	JMK
Fluorene - BS	EPA-8270	**81.3**			20	150	07/12/2021	JMK
Fluorene - BSD	EPA-8270	**90.9**	**11**		20	150	07/12/2021	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**73.3**			20	150	07/12/2021	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**83.0**	**12**		20	150	07/12/2021	JMK
4-Nitroaniline - BS	EPA-8270	**189**		SQ1	20	150	07/12/2021	JMK
4-Nitroaniline - BSD	EPA-8270	**207**	**9**	DUP05	20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**96.1**			20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**112**	**16**		20	150	07/12/2021	JMK
Azobenzene - BS	EPA-8270	**100**			20	150	07/12/2021	JMK
Azobenzene - BSD	EPA-8270	**115**	**14**		20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**68.1**			20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**78.2**	**14**		20	150	07/12/2021	JMK
Hexachlorobenzene - BS	EPA-8270	**68.8**			20	150	07/12/2021	JMK
Hexachlorobenzene - BSD	EPA-8270	**78.2**	**13**		20	150	07/12/2021	JMK
Pentachlorophenol - BS	EPA-8270	**62.6**			41.3	113	07/12/2021	JMK
Pentachlorophenol - BSD	EPA-8270	**72.8**	**15**		41.3	113	07/12/2021	JMK
Phenanthrene - BS	EPA-8270	**82.0**			20	150	07/12/2021	JMK
Phenanthrene - BSD	EPA-8270	**93.2**	**13**		20	150	07/12/2021	JMK
Anthracene - BS	EPA-8270	**78.6**			20	150	07/12/2021	JMK
Anthracene - BSD	EPA-8270	**92.4**	**16**		20	150	07/12/2021	JMK
Carbazole - BS	EPA-8270	**169**		SQ1	20	150	07/12/2021	JMK
Carbazole - BSD	EPA-8270	**181**	**7**	DUP05	20	150	07/12/2021	JMK
Di-N-Butylphthalate - BS	EPA-8270	**87.2**			20	150	07/12/2021	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**102**	**15**		20	150	07/12/2021	JMK
Fluoranthene - BS	EPA-8270	**79.5**			20	150	07/12/2021	JMK
Fluoranthene - BSD	EPA-8270	**88.8**	**11**		20	150	07/12/2021	JMK
Pyrene - BS	EPA-8270	**91.8**			57.4	145	07/12/2021	JMK
Pyrene - BSD	EPA-8270	**107**	**15**		57.4	145	07/12/2021	JMK
Butylbenzylphthalate - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Butylbenzylphthalate - BSD	EPA-8270	**121**	**16**		20	150	07/12/2021	JMK
Benzo[A]Anthracene - BS	EPA-8270	**79.7**			20	150	07/12/2021	JMK

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CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Anthracene - BSD	EPA-8270	**90.8**	**13**		20	150	07/12/2021	JMK
Chrysene - BS	EPA-8270	**77.2**			20	150	07/12/2021	JMK
Chrysene - BSD	EPA-8270	**89.2**	**14**		20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**101**			20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**119**	**16**		20	150	07/12/2021	JMK
Di-N-Octylphthalate - BS	EPA-8270	**98.2**			20	150	07/12/2021	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**112**	**13**		20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**89.0**			20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**101**	**13**		20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**83.3**			20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**95.4**	**14**		20	150	07/12/2021	JMK
Benzo[A]Pyrene - BS	EPA-8270	**84.2**			20	150	07/12/2021	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**97.1**	**14**		20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**67.8**			20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**82.2**	**19**		20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**68.6**			20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**84.1**	**20**		20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**70.0**			20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**83.4**	**18**		20	150	07/12/2021	JMK

DUP05 - LCS/LCSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.
SR1 - RPD outside of control limits.

ALS Test Batch ID: R387798 - TCLP Extract by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**89.6**			20	150	07/14/2021	JMK
Pyridine - BSD	EPA-8270	**100**	**11**		20	150	07/14/2021	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**88.8**			20	150	07/14/2021	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**81.8**	**8**		20	150	07/14/2021	JMK
Phenol - BS	EPA-8270	**79.0**			5	84	07/14/2021	JMK
Phenol - BSD	EPA-8270	**74.2**	**6**		5	84	07/14/2021	JMK
Aniline - BS	EPA-8270	**217**		SQ1	20	150	07/14/2021	JMK
Aniline - BSD	EPA-8270	**221**	**2**	SQ1	20	150	07/14/2021	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**136**			20	150	07/14/2021	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**140**	**3**		20	150	07/14/2021	JMK
2-Chlorophenol - BS	EPA-8270	**85.6**			45	111	07/14/2021	JMK
2-Chlorophenol - BSD	EPA-8270	**79.5**	**7**		45	111	07/14/2021	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**72.3**			20	150	07/14/2021	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**72.2**	**0**		20	150	07/14/2021	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene - BS	EPA-8270	**73.9**			27.1	114	07/14/2021	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**72.7**	**2**		27.1	114	07/14/2021	JMK
Benzyl Alcohol - BS	EPA-8270	**89.5**			20	150	07/14/2021	JMK
Benzyl Alcohol - BSD	EPA-8270	**88.1**	**2**		20	150	07/14/2021	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**76.6**			20	150	07/14/2021	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**74.0**	**3**		20	150	07/14/2021	JMK
2-Methylphenol - BS	EPA-8270	**92.5**			20	150	07/14/2021	JMK
2-Methylphenol - BSD	EPA-8270	**89.7**	**3**		20	150	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**131**			20	150	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**124**	**6**		20	150	07/14/2021	JMK
3&4-Methylphenol - BS	EPA-8270	**90.4**			20	150	07/14/2021	JMK
3&4-Methylphenol - BSD	EPA-8270	**86.2**	**5**		20	150	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**93.4**			42.2	119	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**83.2**	**12**		42.2	119	07/14/2021	JMK
Hexachloroethane - BS	EPA-8270	**66.3**			20	150	07/14/2021	JMK
Hexachloroethane - BSD	EPA-8270	**65.2**	**2**		20	150	07/14/2021	JMK
Nitrobenzene - BS	EPA-8270	**98.9**			20	150	07/14/2021	JMK
Nitrobenzene - BSD	EPA-8270	**95.9**	**3**		20	150	07/14/2021	JMK
Isophorone - BS	EPA-8270	**88.2**			20	150	07/14/2021	JMK
Isophorone - BSD	EPA-8270	**83.9**	**5**		20	150	07/14/2021	JMK
2-Nitrophenol - BS	EPA-8270	**109**			20	150	07/14/2021	JMK
2-Nitrophenol - BSD	EPA-8270	**99.5**	**9**		20	150	07/14/2021	JMK
2,4-Dimethylphenol - BS	EPA-8270	**84.7**			20	150	07/14/2021	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**79.5**	**6**		20	150	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**95.2**			20	150	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**91.0**	**4**		20	150	07/14/2021	JMK
2,4-Dichlorophenol - BS	EPA-8270	**82.4**			20	150	07/14/2021	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**75.8**	**8**		20	150	07/14/2021	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**71.1**			29.4	120	07/14/2021	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**68.3**	**4**		29.4	120	07/14/2021	JMK
Naphthalene - BS	EPA-8270	**82.7**			20	150	07/14/2021	JMK
Naphthalene - BSD	EPA-8270	**78.9**	**5**		20	150	07/14/2021	JMK
4-Chloroaniline - BS	EPA-8270	**71.9**			20	150	07/14/2021	JMK
4-Chloroaniline - BSD	EPA-8270	**73.6**	**2**		20	150	07/14/2021	JMK
Hexachlorobutadiene - BS	EPA-8270	**64.5**			20	150	07/14/2021	JMK
Hexachlorobutadiene - BSD	EPA-8270	**61.2**	**5**		20	150	07/14/2021	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**95.8**			44	113	07/14/2021	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**89.5**	**7**		44	113	07/14/2021	JMK
2-Methylnaphthalene - BS	EPA-8270	**83.4**			20	150	07/14/2021	JMK
2-Methylnaphthalene - BSD	EPA-8270	**79.9**	**4**		20	150	07/14/2021	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1-Methylnaphthalene - BS	EPA-8270	**86.9**			20	150	07/14/2021	JMK
1-Methylnaphthalene - BSD	EPA-8270	**82.1**	**6**		20	150	07/14/2021	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**40.8**			20	150	07/14/2021	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**42.6**	**4**		20	150	07/14/2021	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**66.7**			20	150	07/14/2021	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**60.2**	**10**		20	150	07/14/2021	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**72.0**			20	150	07/14/2021	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**64.1**	**12**		20	150	07/14/2021	JMK
2-Chloronaphthalene - BS	EPA-8270	**84.9**			20	150	07/14/2021	JMK
2-Chloronaphthalene - BSD	EPA-8270	**82.8**	**3**		20	150	07/14/2021	JMK
2-Nitroaniline - BS	EPA-8270	**96.0**			20	150	07/14/2021	JMK
2-Nitroaniline - BSD	EPA-8270	**94.0**	**2**		20	150	07/14/2021	JMK
Acenaphthylene - BS	EPA-8270	**91.6**			20	150	07/14/2021	JMK
Acenaphthylene - BSD	EPA-8270	**88.0**	**4**		20	150	07/14/2021	JMK
Dimethylphthalate - BS	EPA-8270	**92.3**			20	150	07/14/2021	JMK
Dimethylphthalate - BSD	EPA-8270	**88.7**	**4**		20	150	07/14/2021	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**92.9**			20	150	07/14/2021	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**90.4**	**3**		20	150	07/14/2021	JMK
Acenaphthene - BS	EPA-8270	**87.1**			41	107	07/14/2021	JMK
Acenaphthene - BSD	EPA-8270	**83.6**	**4**		41	107	07/14/2021	JMK
3-Nitroaniline - BS	EPA-8270	**160**		SQ1	20	150	07/14/2021	JMK
3-Nitroaniline - BSD	EPA-8270	**197**	**21**	SQ1	20	150	07/14/2021	JMK
2,4-Dinitrophenol - BS	EPA-8270	**78.5**			20	150	07/14/2021	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**74.2**	**6**		20	150	07/14/2021	JMK
4-Nitrophenol - BS	EPA-8270	**40.9**			5	63	07/14/2021	JMK
4-Nitrophenol - BSD	EPA-8270	**37.2**	**9**		5	63	07/14/2021	JMK
Dibenzofuran - BS	EPA-8270	**88.9**			20	150	07/14/2021	JMK
Dibenzofuran - BSD	EPA-8270	**86.1**	**3**		20	150	07/14/2021	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**95.0**			53.1	136	07/14/2021	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**92.5**	**3**		53.1	136	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**64.3**			20	150	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**57.1**	**12**		20	150	07/14/2021	JMK
Diethylphthalate - BS	EPA-8270	**96.4**			20	150	07/14/2021	JMK
Diethylphthalate - BSD	EPA-8270	**92.8**	**4**		20	150	07/14/2021	JMK
Fluorene - BS	EPA-8270	**89.2**			20	150	07/14/2021	JMK
Fluorene - BSD	EPA-8270	**87.4**	**2**		20	150	07/14/2021	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**82.3**			20	150	07/14/2021	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**80.0**	**3**		20	150	07/14/2021	JMK
4-Nitroaniline - BS	EPA-8270	**122**			20	150	07/14/2021	JMK
4-Nitroaniline - BSD	EPA-8270	**121**	**0**		20	150	07/14/2021	JMK

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Environmental www.alsglobal.com
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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**93.9**			20	150	07/14/2021	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**85.6**	**9**		20	150	07/14/2021	JMK
Azobenzene - BS	EPA-8270	**121**			20	150	07/14/2021	JMK
Azobenzene - BSD	EPA-8270	**116**	**5**		20	150	07/14/2021	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**80.2**			20	150	07/14/2021	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**75.9**	**6**		20	150	07/14/2021	JMK
Hexachlorobenzene - BS	EPA-8270	**80.6**			20	150	07/14/2021	JMK
Hexachlorobenzene - BSD	EPA-8270	**75.6**	**6**		20	150	07/14/2021	JMK
Pentachlorophenol - BS	EPA-8270	**57.5**			33	124	07/14/2021	JMK
Pentachlorophenol - BSD	EPA-8270	**52.0**	**10**		33	124	07/14/2021	JMK
Phenanthrene - BS	EPA-8270	**94.2**			20	150	07/14/2021	JMK
Phenanthrene - BSD	EPA-8270	**89.4**	**5**		20	150	07/14/2021	JMK
Anthracene - BS	EPA-8270	**94.2**			20	150	07/14/2021	JMK
Anthracene - BSD	EPA-8270	**89.9**	**5**		20	150	07/14/2021	JMK
Carbazole - BS	EPA-8270	**71.7**			20	150	07/14/2021	JMK
Carbazole - BSD	EPA-8270	**69.2**	**4**		20	150	07/14/2021	JMK
Di-N-Butylphthalate - BS	EPA-8270	**104**			20	150	07/14/2021	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**98.1**	**6**		20	150	07/14/2021	JMK
Fluoranthene - BS	EPA-8270	**88.3**			20	150	07/14/2021	JMK
Fluoranthene - BSD	EPA-8270	**83.2**	**6**		20	150	07/14/2021	JMK
Pyrene - BS	EPA-8270	**122**			18	136	07/14/2021	JMK
Pyrene - BSD	EPA-8270	**111**	**9**		18	136	07/14/2021	JMK
Butylbenzylphthalate - BS	EPA-8270	**135**			20	150	07/14/2021	JMK
Butylbenzylphthalate - BSD	EPA-8270	**123**	**9**		20	150	07/14/2021	JMK
Benzo[A]Anthracene - BS	EPA-8270	**91.3**			20	150	07/14/2021	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**87.2**	**5**		20	150	07/14/2021	JMK
Chrysene - BS	EPA-8270	**90.7**			20	150	07/14/2021	JMK
Chrysene - BSD	EPA-8270	**86.7**	**5**		20	150	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**131**			20	150	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**122**	**7**		20	150	07/14/2021	JMK
Di-N-Octylphthalate - BS	EPA-8270	**114**			20	150	07/14/2021	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**107**	**7**		20	150	07/14/2021	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**102**			20	150	07/14/2021	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**97.5**	**4**		20	150	07/14/2021	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**99.4**			20	150	07/14/2021	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**95.0**	**5**		20	150	07/14/2021	JMK
Benzo[A]Pyrene - BS	EPA-8270	**97.1**			20	150	07/14/2021	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**94.1**	**3**		20	150	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**73.4**			20	150	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**72.1**	**2**		20	150	07/14/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dibenz[A,H]Anthracene - BS	EPA-8270	**68.1**			20	150	07/14/2021	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**67.1**	**1**		20	150	07/14/2021	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**68.5**			20	150	07/14/2021	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**67.5**	**1**		20	150	07/14/2021	JMK

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: 167897 - Soil by EPA-8082

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
PCB-1016 - BS	EPA-8082	**67.7**			50	150	07/13/2021	JMK
PCB-1016 - BSD	EPA-8082	**71.5**	**5**		50	150	07/13/2021	JMK
PCB-1260 - BS	EPA-8082	**73.7**			50	150	07/13/2021	JMK
PCB-1260 - BSD	EPA-8082	**80.6**	**9**		50	150	07/13/2021	JMK

ALS Test Batch ID: R387467 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**109**			81.8	117	07/14/2021	RAL
Mercury - BSD	EPA-7471	**107**	**1**		81.8	117	07/14/2021	RAL

ALS Test Batch ID: R387974 - TCLP Extract by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7470	**106**			85	115	07/14/2021	RAL
Mercury - BSD	EPA-7470	**107**	**1**		85	115	07/14/2021	RAL

ALS Test Batch ID: 167802 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**99.0**			80	120	07/09/2021	EBS
Arsenic - BSD	EPA-6020	**97.0**	**2**		80	120	07/09/2021	EBS
Barium - BS	EPA-6020	**101**			80	120	07/09/2021	EBS
Barium - BSD	EPA-6020	**98.3**	**3**		80	120	07/09/2021	EBS
Cadmium - BS	EPA-6020	**105**			80	120	07/09/2021	EBS
Cadmium - BSD	EPA-6020	**102**	**3**		80	120	07/09/2021	EBS
Chromium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS
Chromium - BSD	EPA-6020	**97.5**	**3**		80	120	07/09/2021	EBS
Lead - BS	EPA-6020	**98.3**			80	120	07/09/2021	EBS
Lead - BSD	EPA-6020	**96.5**	**2**		80	120	07/09/2021	EBS
Selenium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Selenium - BSD	EPA-6020	**97.2**	**3**		80	120	07/09/2021	EBS
Silver - BS	EPA-6020	**107**			80	120	07/09/2021	EBS
Silver - BSD	EPA-6020	**103**	**3**		80	120	07/09/2021	EBS

ALS Test Batch ID: R387975 - TCLP Extract by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**97.0**			89.1	110	07/14/2021	RAL
Arsenic - BSD	EPA-6020	**98.0**	**1**		89.1	110	07/14/2021	RAL
Barium - BS	EPA-6020	**98.0**			88.5	108	07/14/2021	RAL
Barium - BSD	EPA-6020	**98.0**	**0**		88.5	108	07/14/2021	RAL
Cadmium - BS	EPA-6020	**103**			89.4	109	07/14/2021	RAL
Cadmium - BSD	EPA-6020	**103**	**0**		89.4	109	07/14/2021	RAL
Chromium - BS	EPA-6020	**103**			86.2	107	07/14/2021	RAL
Chromium - BSD	EPA-6020	**101**	**2**		86.2	107	07/14/2021	RAL
Lead - BS	EPA-6020	**100**			87.5	107	07/14/2021	RAL
Lead - BSD	EPA-6020	**100**	**0**		87.5	107	07/14/2021	RAL
Selenium - BS	EPA-6020	**98.0**			90.2	113	07/14/2021	RAL
Selenium - BSD	EPA-6020	**99.0**	**1**		90.2	113	07/14/2021	RAL
Silver - BS	EPA-6020	**107**			80	120	07/14/2021	RAL
Silver - BSD	EPA-6020	**107**	**0**		80	120	07/14/2021	RAL

APPROVED BY

Laboratory Director

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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2107037

Date 7/8/21 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E. Champion St. #101
Bellingham, WA 98225
PHONE: 360 752-9571 P.O. #:
E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐ BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐ MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐ Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐ RCRA-8 ☒ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☒ VOA ☒ Semi-Vol ☒ Pest ☐ Herbs ☐	OTHER (Specify): PCBs	pH	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. P-1 Composite	7/8/21	11:30	Soil	1		X	X				X			X			X		X	X	X		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
8.																							
9.																							
10.																							

SPECIAL INSTRUCTIONS: Sample collected via Method 5035A

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [signature] WES 7-9-21 10:10
Received By: [signature] ALS 7-9-21 1010
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: [10] Standard | 5 | 3 | 2 | 1 | SAME DAY
Fuels & Hydrocarbon Analysis: [5] Standard | 3 | 1 | SAME DAY
OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID: P-1 Composite

Report date: July 21, 2021

Submitted to:

Whatcom Environmental
228 E. Champion Suite 101
Bellingham, WA 98225

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on one sample submitted by Whatcom Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The sample, identified as P-1 Composite, was received in the laboratory on July 9, 2021. Upon arrival at the laboratory the sample was inspected and contents verified against information provided on the chain-of-custody form. The sample was stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test number	2107-022
Sample ID	P-1 Composite
Test initiation date; time	7/16/2021; 0945h
Test termination date; time	7/21/2021; 0945h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L Plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The sample was tested using fish received on July 6, 2021.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	32 days post swim-up (hatch date 5/21/2021)
Mean weight	0.31 g
Mean length	31 mm
Ratio of longest to shortest	1.3
Loading	0.51 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on sample P-1 Composite is contained in Table 3. There was no mortality during the test. Based on these results, the sample does not designate as either a dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
P-1 Composite	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated July 5, 2021. The LC_{50} of 200 µg/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 18.2 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised June 2016.

WDOE. 2020. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised September 2020.

Appendix A

Oncorhynchus mykiss Dangerous Waste Toxicity Test

Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: Whatcom Environmental Services
Sample ID: P-1 Composite
Test #: 2107-022
Log In #: T21-191

Start Date & Time: 7/16/2021 0945
End Date & Time: 7/20/2021 0945
Test Organism: *Oncorhynchus mykiss*
Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms					Dissolved Oxygen (mg/L)					pH (units)					Conductivity (umhos/cm)					Temperature (°C)					Percent Survival
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
1	CON	12	10	10	10	10	10	8.4	8.0	7.8	7.5	7.2	8.10	7.93	7.62	7.41	7.18	361				364	12.4	12.0	12.0	12.4	12.1	
2		14	10	10	10	10	10	8.7	8.4	8.1	7.4	7.0	8.12	7.97	7.59	7.44	7.22	361				360						
3		25	10	10	10	10	10	8.6	8.3	8.1	7.6	7.4	8.13	7.87	7.59	7.46	7.20	360				367						
1	10 PPM	23	10	10	10	10	10	8.4	8.0	7.7	7.4	7.0	8.10	7.92	7.61	7.41	7.18	363				364	12.5	12.1	11.8	12.5	12.4	
2		2	10	10	10	10	10	8.5	8.2	8.1	7.8	7.6	8.11	7.95	7.55	7.43	7.19	364				361						
3		9	10	10	10	10	10	8.7	8.4	8.1	7.6	7.2	8.11	7.84	7.57	7.46	7.15	363				362						
1	100 PPM	7	10	10	10	10	10	8.9	8.5	8.3	7.9	7.5	8.14	7.97	7.58	7.44	7.20	367				367	12.6	11.8	11.9	12.6	12.1	
2		20	10	10	10	10	10	8.5	8.3	8.0	7.7	7.4	8.16	7.95	7.54	7.42	7.22	362				360						
3		15	10	10	10	10	10	9.1	8.7	8.3	7.6	7.1	8.12	7.84	7.57	7.47	7.17	363				361						
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
Technician Initials			AS	CJ	CJ	AS	DH	AS	CJ	CJ	AS	DH																

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	68	100	68	100	<0.03
100PPM	68	100	68	100	

Animal Source: Troutlodge
Date Received: 7/16/2021

Test Volume: 6.0L
Date of Hatch: 5/21/2021
Date of Swim up: 6/14/2021

Weights (g): .28 .31 .30 .33 .34 .27 .32 .31 .32 .30
Lengths(mm): 28 32 30 32 36 27 31 31 34 31
Length max/min: 35/27 1.3

μ = .31 Rainier Environmental
μ = 31 Washington Laboratory

Loading: 0.5 g/L

5013 Pacific HWY E Suite 20
Tacoma, WA 98424

Dilution Water Source: MHSW 056

QA Check CJ

Appendix B

Reference Toxicant Test

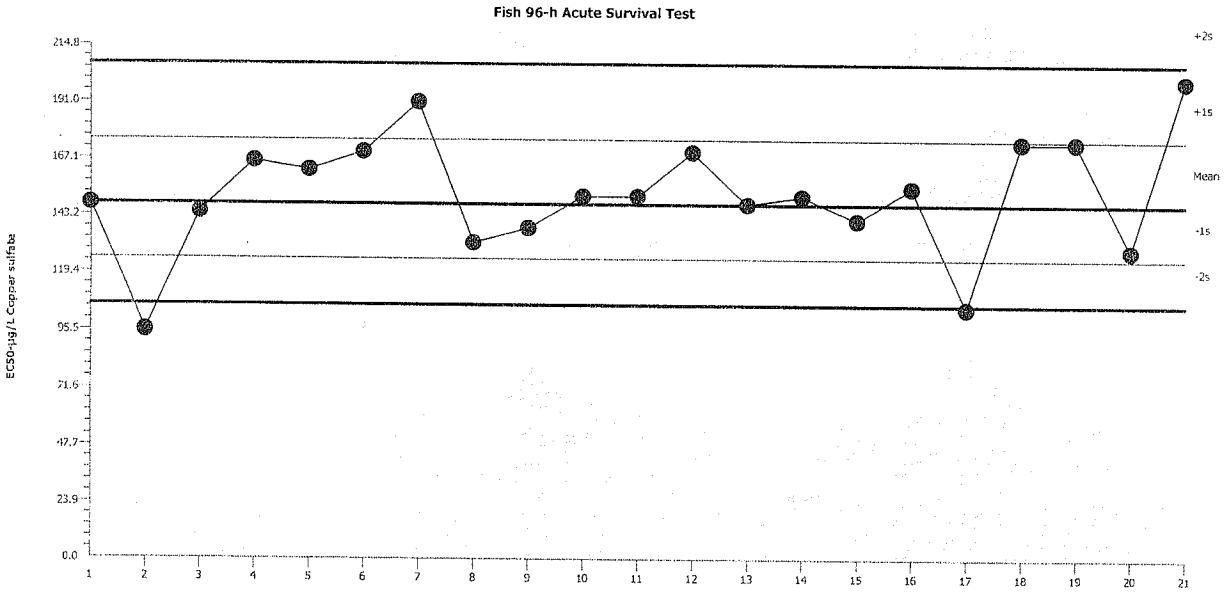
Control Chart and Statistical Summary

CETIS QC Plot

Report Date: 12 Jul-21 10:05 (1 of 1)

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Test Type:	Survival (96h)	**Organism:**	Oncorhynchus mykiss (Rainbow Tro	**Material:**	Copper sulfate
Protocol:	Not Applicable	**Endpoint:**	96h Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	148.1	**Count:**	20	**-1s Warning Limit:**	125.3	**-2s Action Limit:**	105.9
Sigma:	NA	**CV:**	18.20%	**+1s Warning Limit:**	175.1	**+2s Action Limit:**	207.1

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2019	Sep	20	148.1	-0.006829	-0.000277			14-9775-6582	02-8526-9159
2		Oct	22	95.48	-52.63	-2.62	(-)	(-)	08-2604-9852	04-5996-4554
3		Nov	25	144.7	-3.39	-0.1381			19-0900-7567	17-7816-6246
4		Dec	26	166.2	18.13	0.689			18-0718-4325	01-1522-2292
5	2020	Jan	27	162.5	14.33	0.5512			15-7428-0290	09-7189-2054
6		Feb	28	170.1	22.02	0.8269			09-4267-7927	12-7910-1452
7		Apr	1	191	42.85	1.516	(+)		13-6543-5000	21-3363-8866
8		May	1	132	-16.17	-0.6896			05-3085-5611	09-0915-7454
9		Jun	4	138.2	-9.925	-0.4138			02-5099-4531	13-4027-8146
10		Jul	6	151.6	3.455	0.1376			15-0399-3719	05-1602-0366
11		Aug	11	151.6	3.455	0.1376			11-3397-1930	16-8568-1199
12		Sep	14	170.1	22.02	0.8269			14-7225-6269	12-3543-2567
13		Oct	16	148.1	-0.006829	-0.000277			14-5810-5046	20-2713-3131
14		Nov	18	151.6	3.455	0.1376			10-5338-0034	08-0074-4976
15		Dec	23	141.4	-6.695	-0.276			15-6478-5352	03-7190-5847
16	2021	Jan	25	155.1	6.998	0.2754			20-5317-8946	09-6722-9321
17		Feb	25	104.7	-43.39	-2.068	(-)	(-)	02-0723-8590	03-5049-2171
18		Mar	26	174.1	25.99	0.9647			20-1005-2762	02-2683-0690
19		May	3	174.1	25.99	0.9647			06-3924-6336	17-2626-4312
20		Jun	2	128.9	-19.18	-0.8274			07-7369-8679	18-7582-9918
21		Jul	5	200	51.88	1.792	(+)		05-2506-1213	20-3965-9928

CETIS Summary Report

Test Code: RA070521OM | 05-2506-1213

Fish 96-h Acute Survival Test — Rainier Environmental Laboratory

Batch ID:	20-1773-3416	Test Type:	Survival (96h)	Analyst:	Eric Tollefson
Start Date:	05 Jul-21 10:35	Protocol:	Not Applicable	Diluent:	Mod-Hard Synthetic Water
Ending Date:	09 Jul-21 10:35	Species:	Oncorhynchus mykiss	Brine:	
Duration:	96h	Source:	Trout Lodge Fish Farm	Age:	100d
Sample ID:	09-8083-0896	Code:	RA070521OM	Client:	Internal Lab
Sample Date:	05 Jul-21	Material:	Copper sulfate	Project:	
Receive Date:	05 Jul-21	Source:	Reference Toxicant		
Sample Age:	11h	Station:	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-5892-4148	96h Survival Rate	100	200	141.4	10.2%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
20-3965-9928	96h Survival Rate	LC50	200	172.9	231.3		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	1	1	1	1	1	0	0	0.0%	0.0%
100		3	0.9	0.8627	0.9373	0.8	1	0.05774	0.1	11.11%	10.0%
200		3	0.6	0.5627	0.6373	0.5	0.7	0.05774	0.1	16.67%	40.0%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	1	1
100		0.9	1	0.8
200		0.6	0.5	0.7
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	10/10	10/10
100		9/10	10/10	8/10
200		6/10	5/10	7/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

Rainier ENVIRONMENTAL

Washington
5013 Pacific Highway East, Suite 20 Fife,
WA 98424
Phone253.922.8898

Chain of Custody

Date 7/8/21 Page 1 of 1

Sample Collection By:

Report to:		Invoice To:	
Company	Whatcom Environmental Services	Company	Same as report
Address	228 E. Champion St. #101	Address	
City/State/Zip	Bellingham WA 98225	City/State/Zip	
Contact	Harold Cashman	Contact	
Phone	(360) 752-9571	Phone	
Email	hjcashman@whatcom-es.com	Email	

	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS	ANALYSES REQUIRED: Dangerous Waste Designation (Method 8021-B)	Receipt Temperature (°C)
1	P-1 Composite	7/8/21	11:30	Soil	4oz glass	1		X	
2									
3									
4									
5									
6									
7									
8									
9									
10									

PROJECT INFORMATION		SAMPLE RECEIPT	
Client:	City of B'ham	Total No. of Containers	1
PO No.:	210 McKenzie	Received Good Condition?	Y
Shipped Via:	UPS	Matches Test Schedule?	Y

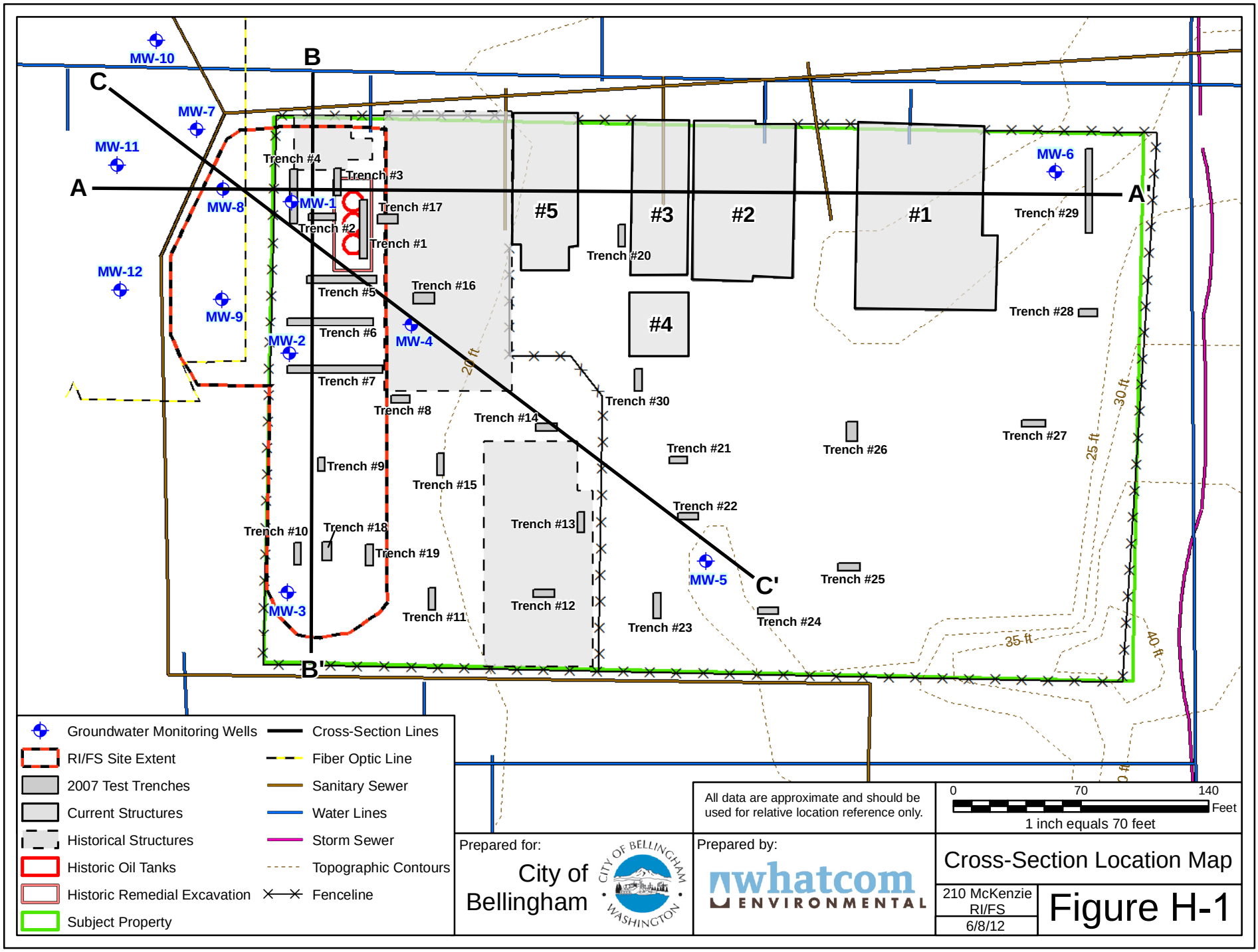
SPECIAL INSTRUCTIONS/COMMENTS:

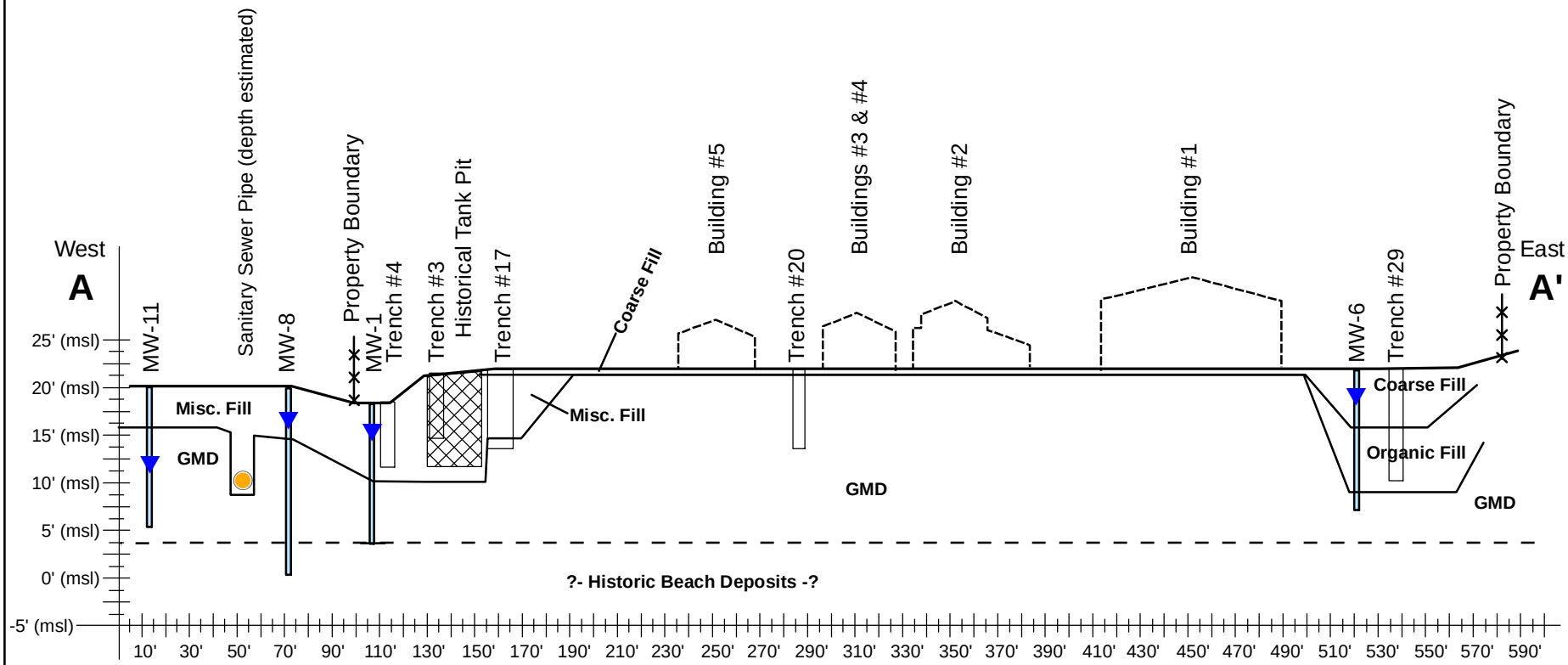
RELINQUISHED BY (CLIENT)	RELINQUISHED BY (COURIER)
(Signature) (Time) 2:15	(Signature) (Time)
(Printed Name) Harold Cashman (Date) 7/8/21	(Printed Name) (Date)
(Company) Whatcom Environmental Services	(Company)

RECEIVED BY (COURIER)	RECEIVED BY (LABORATORY)
(Signature) (Time)	(Signature) Annie Lee (Time) 1400
(Printed Name) (Date)	(Printed Name) Annie Lee (Date) 7/9/21
(Company)	(Log in #) T21-191

APPENDIX I

2016 RI/FS Cross Section Maps


MW-10
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-2
MW-4
MW-6
MW-5
MW-3
A
A'
B
B'
C
C'
Trench #4
Trench #3
Trench #17
Trench #2
Trench #1
Trench #5
Trench #16
Trench #6
Trench #7
Trench #8
Trench #14
Trench #9
Trench #15
Trench #10
Trench #18
Trench #19
Trench #11
Trench #13
Trench #12
Trench #20
Trench #30
Trench #21
Trench #22
Trench #23
Trench #24
Trench #26
Trench #25
Trench #27
Trench #28
Trench #29
#5
#3
#2
#1
#4
20 ft
25 ft
30 ft
35 ft
40 ft
Groundwater Monitoring Wells
RI/FS Site Extent
2007 Test Trenches
Current Structures
Historical Structures
Historic Oil Tanks
Historic Remedial Excavation
Subject Property
Cross-Section Lines
Fiber Optic Line
Sanitary Sewer
Water Lines
Storm Sewer
Topographic Contours
Fenceline
All data are approximate and should be used for relative location reference only.
0
70
140
Feet
1 inch equals 70 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Cross-Section Location Map
210 McKenzie RI/FS
6/8/12
Figure H-1



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 12/6/2011

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

Coarse Fill - Generally consists of coarse sandy gravel material used to grade the site.

Organic Fill - Highly organic debris that does not appear to be native subsurface material.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 70 140 Feet

1 inch equals 70 feet

All data are approximate and should be used for relative location reference only.

Prepared for: City of Bellingham

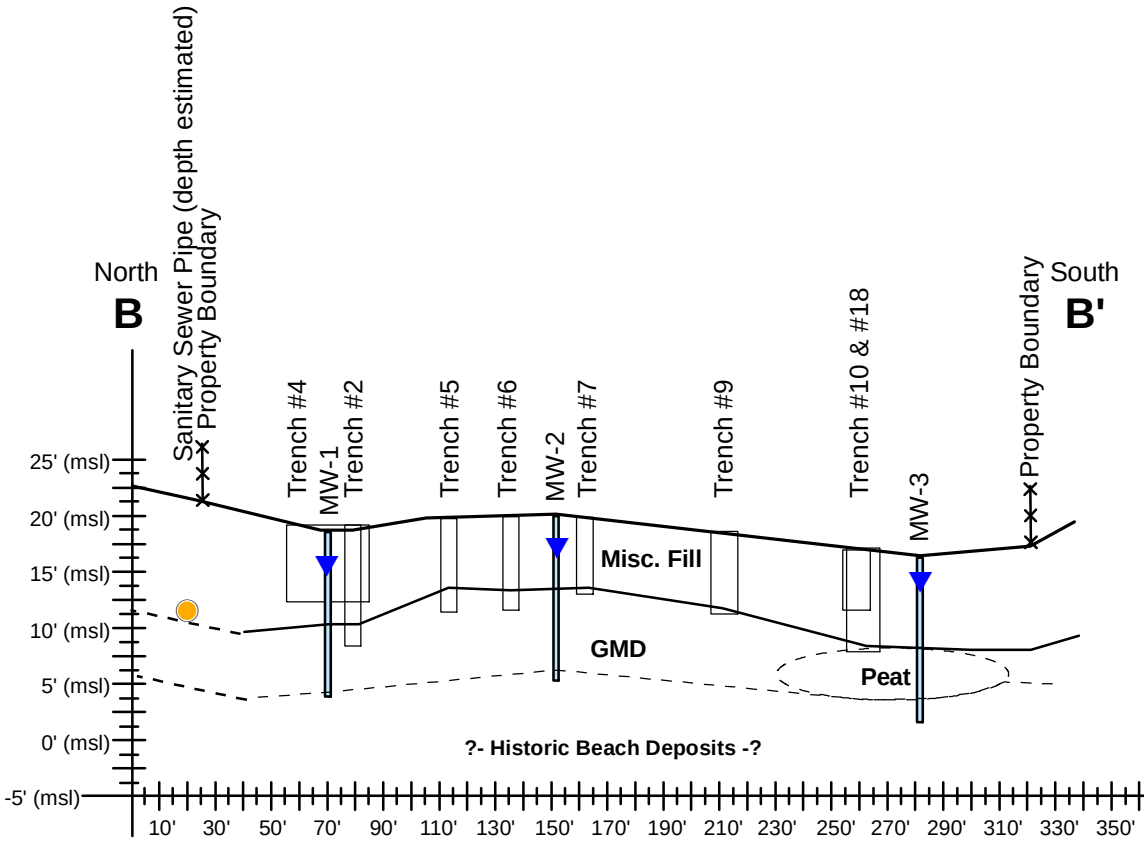
Prepared by: nwhatcom ENVIRONMENTAL

Cross-Section A - A'

210 McKenzie RI/FS

6/8/12

Figure H-2



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 12/6/2011

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Peat - Highly organic and sticky silts and silty fine sands.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 70 140 Feet

1 inch equals 70 feet

All data are approximate and should be used for relative location reference only.

Prepared for: City of Bellingham

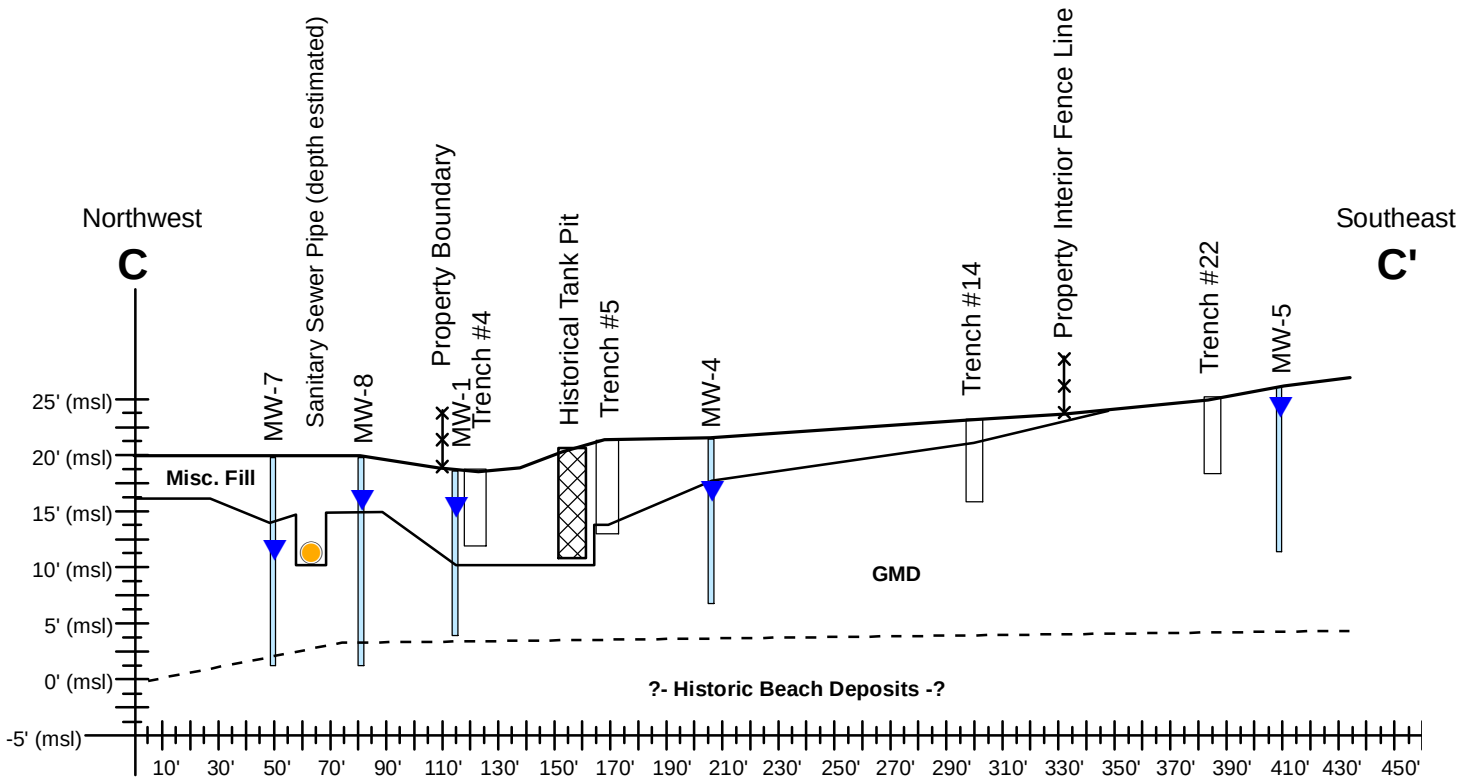
Prepared by: nwhatcom ENVIRONMENTAL

Cross-Section B - B'

210 McKenzie RI/FS

6/8/12

Figure H-3



Cross-Section at 4x Verticle Exageration

▼ = Groundwater level measured 12/6/2011

Misc. Fill - Debris associated with former manufacturing activity at the subject property.

GMD - Glaciomarine Drift consisting of silty clays and clayey silts.

Historic Beach Deposits - Generally consists of coarse sands and gravels with abundant shell fragments.

0 70 140 Feet

1 inch equals 70 feet

All data are approximate and should be used for relative location reference only.

Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

Cross-Section C - C'

210 McKenzie RI/FS

6/8/12

Figure H-4

APPENDIX J

Slug Test Worksheets

WELL ID: MW-1

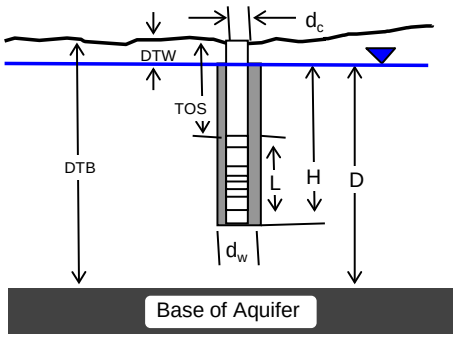
Project ID: Brown & Caldwell Phase III

Date: 1/21/2021

Time: 0:35

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	1.71	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



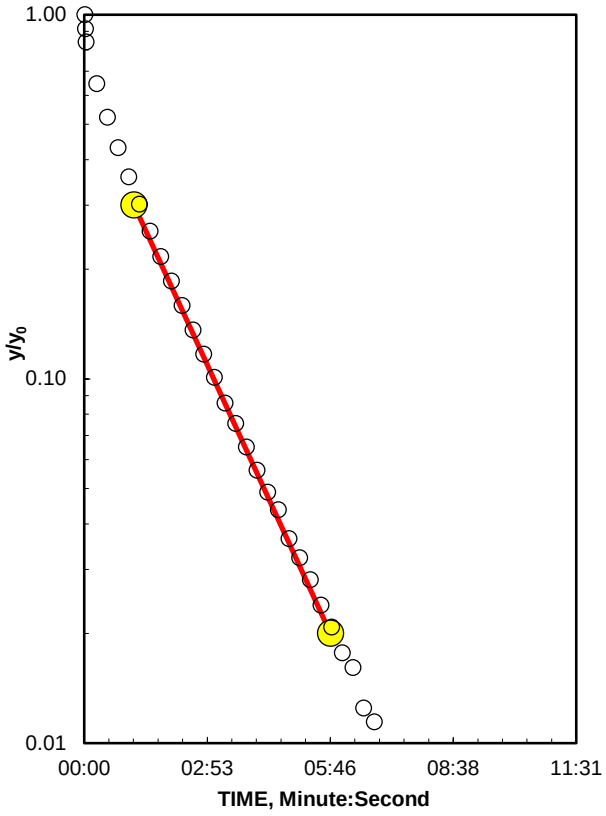
COMPUTED

L_{wetted}	10	Feet
D =	28.29	Feet
H =	13.29	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	1.92	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.480	
B =	0.409	
ln(Re/rw) =	2.276	
Re =	3.35	Feet
Slope =	0.004261	$\log_{10}$/sec
$t_{90\%}$ recovery =	235	sec

Input is consistent.

K = 0.7 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Entry	Reduced Data Time, Hr:Min:Sec	Water Level
1	0:35:28.0	3.63
2	0:35:28.9	3.47
3	0:35:30.0	3.33
4	0:35:45.0	2.95
5	0:36:00.0	2.72
6	0:36:15.0	2.54
7	0:36:30.0	2.40
8	0:36:45.0	2.29
9	0:37:00.0	2.20
10	0:37:15.0	2.13
11	0:37:30.0	2.07
12	0:37:45.0	2.02
13	0:38:00.0	1.97
14	0:38:15.0	1.94
15	0:38:30.0	1.90
16	0:38:45.0	1.88
17	0:39:00.0	1.86
18	0:39:15.0	1.84
19	0:39:30.0	1.82
20	0:39:45.0	1.80
21	0:40:00.0	1.79
22	0:40:15.0	1.78
23	0:40:30.0	1.77
24	0:40:45.0	1.76
25	0:41:00.0	1.76
26	0:41:15.0	1.75
27	0:41:30.0	1.74
28	0:41:45.0	1.74
29	0:42:00.0	1.73
30	0:42:15.0	1.73
31	0:42:30.0	1.73
32	0:42:45.0	1.73
33	0:43:00.0	1.72
34	0:43:15.0	1.72
35	0:43:30.0	1.72
36	0:43:45.0	1.72
37	0:44:00.0	1.71
38	0:44:15.0	1.71
39	0:44:30.0	1.71
40	0:44:45.0	1.71

WELL ID: MW-2

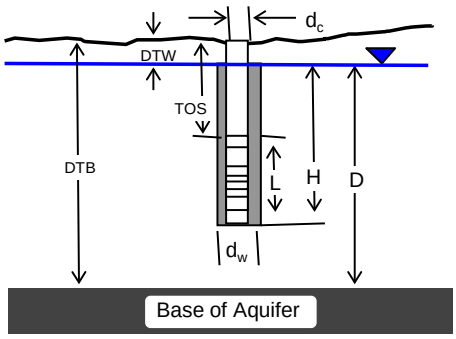
Project ID: Brown & Caldwell Phase III

Date: 1/21/2021

Time: 0:06

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	1.39	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Surficial Aquifer, centr	



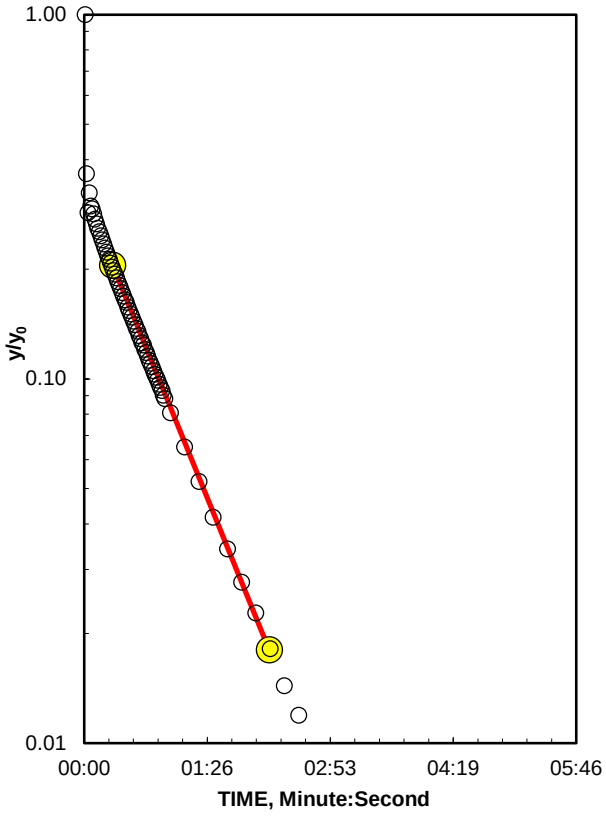
COMPUTED

L_{wetted}	10	Feet
D =	28.61	Feet
H =	13.61	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	3.69	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.480	
B =	0.409	
ln(Re/rw) =	2.286	
Re =	3.38	Feet
Slope =	0.009604	$\log_{10}$/sec
$t_{90\%}$ recovery =	104	sec

Input is consistent.

K = 2 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:06:00.0	5.08
2	0:06:01.0	2.74
3	0:06:02.0	2.45
4	0:06:03.0	2.59
5	0:06:04.0	2.49
6	0:06:05.0	2.47
7	0:06:06.0	2.44
8	0:06:07.0	2.40
9	0:06:08.0	2.37
10	0:06:09.0	2.35
11	0:06:10.0	2.33
12	0:06:11.0	2.30
13	0:06:12.0	2.28
14	0:06:13.0	2.26
15	0:06:14.0	2.23
16	0:06:15.0	2.21
17	0:06:16.0	2.19
18	0:06:17.0	2.18
19	0:06:18.0	2.16
20	0:06:19.0	2.14
21	0:06:20.0	2.12
22	0:06:21.0	2.11
23	0:06:22.0	2.09
24	0:06:23.0	2.07
25	0:06:24.0	2.06
26	0:06:25.0	2.04
27	0:06:26.0	2.03
28	0:06:27.0	2.01
29	0:06:28.0	2.00
30	0:06:29.0	1.99
31	0:06:30.0	1.97
32	0:06:31.0	1.96
33	0:06:32.0	1.95
34	0:06:33.0	1.94
35	0:06:34.0	1.92
36	0:06:35.0	1.91
37	0:06:36.0	1.90
38	0:06:37.0	1.89
39	0:06:38.0	1.88
40	0:06:39.0	1.87
41	0:06:40.0	1.85
42	0:06:41.0	1.85
43	0:06:42.0	1.84
44	0:06:43.0	1.83
45	0:06:44.0	1.82
46	0:06:45.0	1.81
47	0:06:46.0	1.80
48	0:06:47.0	1.79
49	0:06:48.0	1.78
50	0:06:49.0	1.77
51	0:06:50.0	1.76
52	0:06:51.0	1.76
53	0:06:52.0	1.75
54	0:06:53.0	1.74
55	0:06:54.0	1.73
56	0:06:55.0	1.72
57	0:06:56.0	1.72
58	0:07:00.0	1.69
59	0:07:10.0	1.63
60	0:07:20.0	1.58
61	0:07:30.0	1.54
62	0:07:40.0	1.52
63	0:07:50.0	1.49
64	0:08:00.0	1.47
65	0:08:10.0	1.46
66	0:08:20.0	1.44
67	0:08:30.0	1.43
68	0:08:40.0	1.43
69	0:08:50.0	1.42
70	0:09:00.0	1.42
71	0:09:10.0	1.41
72	0:09:20.0	1.40
73	0:09:30.0	1.40
74	0:09:40.0	1.40
75	0:09:50.0	1.40
76	0:10:00.0	1.40
77	0:10:10.0	1.40
78	0:10:20.0	1.39
79	0:10:30.0	1.39
80	0:10:40.0	1.39
81	0:10:50.0	1.39
82	0:11:00.0	1.39

WELL ID: MW-3

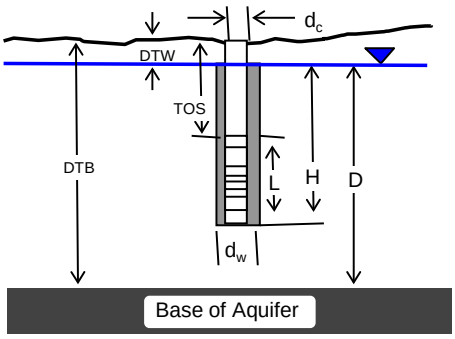
Project ID: Brown & Caldwell Phase III

Date: 1/21/2021

Time: 0:19

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	0.45	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



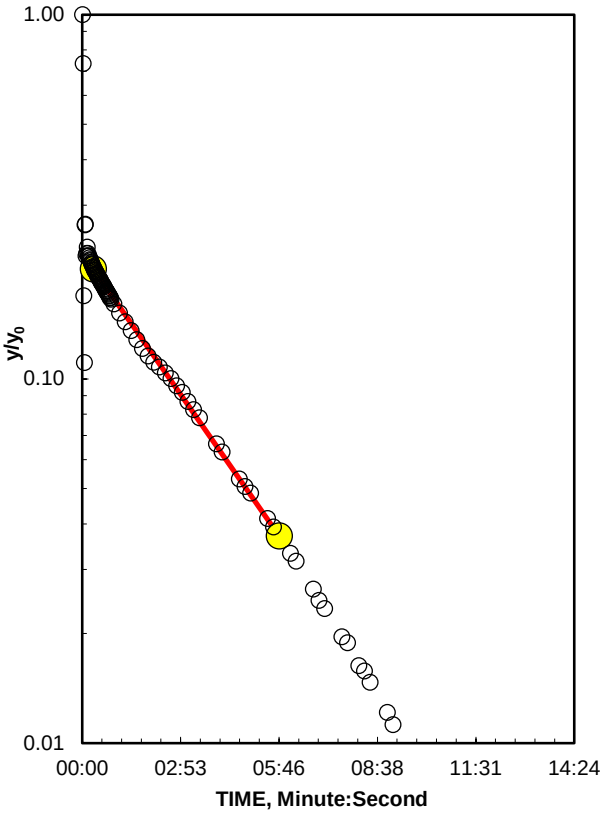
COMPUTED

L_{wetted}	10	Feet
D =	29.55	Feet
H =	14.55	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	5.52	Feet
$y_{0\text{-SLUG}}$ =	6.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.480	
B =	0.409	
ln(Re/rw) =	2.315	
Re =	3.48	Feet
Slope =	0.002247	log_{10}/sec
$t_{90\%}$ recovery =	445	sec

Input is consistent.

K = 0.4 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:19:10.1	5.97
2	0:19:11.1	4.50
3	0:19:12.1	1.38
4	0:19:13.1	1.06
5	0:19:14.1	1.91
6	0:19:15.1	1.92
7	0:19:16.1	1.65
8	0:19:17.1	1.67
9	0:19:18.1	1.72
10	0:19:19.1	1.67
11	0:19:20.1	1.65
12	0:19:21.1	1.65
13	0:19:22.1	1.64
14	0:19:23.1	1.62
15	0:19:24.1	1.61
16	0:19:25.1	1.60
17	0:19:26.1	1.59
18	0:19:27.1	1.58
19	0:19:28.1	1.57
20	0:19:29.1	1.57
21	0:19:30.1	1.56
22	0:19:31.1	1.55
23	0:19:32.1	1.54
24	0:19:33.1	1.54
25	0:19:34.1	1.53
26	0:19:35.1	1.52
27	0:19:36.1	1.51
28	0:19:37.1	1.51
29	0:19:38.1	1.50
30	0:19:39.1	1.49
31	0:19:40.1	1.48
32	0:19:41.1	1.48
33	0:19:42.1	1.47
34	0:19:43.1	1.46
35	0:19:44.1	1.46
36	0:19:45.1	1.45
37	0:19:46.1	1.45
38	0:19:47.1	1.44
39	0:19:48.1	1.44
40	0:19:49.1	1.43
41	0:19:50.1	1.42
42	0:19:51.1	1.41
43	0:19:52.1	1.41
44	0:19:53.1	1.40
45	0:19:54.1	1.40
46	0:19:55.1	1.39
47	0:19:56.1	1.39
48	0:19:57.1	1.38
49	0:19:58.1	1.37
50	0:19:59.1	1.37
51	0:20:00.1	1.36
52	0:20:05.1	1.34
53	0:20:15.1	1.29
54	0:20:25.1	1.24
55	0:20:35.1	1.20
56	0:20:45.1	1.16
57	0:20:55.1	1.12
58	0:21:05.1	1.09
59	0:21:15.1	1.06
60	0:21:25.1	1.04
61	0:21:35.1	1.02
62	0:21:45.1	1.00
63	0:21:55.1	0.98
64	0:22:05.1	0.96
65	0:22:15.1	0.93
66	0:22:25.1	0.90
67	0:22:35.1	0.88
68	0:23:05.1	0.82
69	0:23:15.1	0.80
70	0:23:45.1	0.74
71	0:23:55.1	0.73
72	0:24:05.1	0.72
73	0:24:35.1	0.68
74	0:24:45.1	0.67
75	0:25:15.1	0.63
76	0:25:25.1	0.62
77	0:25:55.1	0.60
78	0:26:05.1	0.59
79	0:26:15.1	0.58
80	0:26:45.1	0.56
81	0:26:55.1	0.55
82	0:27:15.1	0.54
83	0:27:25.1	0.54
84	0:27:35.1	0.53
85	0:28:05.1	0.52
86	0:28:15.1	0.51
87	0:28:45.1	0.50
88	0:28:55.1	0.50
89	0:29:05.1	0.49
90	0:29:35.1	0.48
91	0:29:45.1	0.48
92	0:30:15.1	0.47
93	0:30:25.1	0.47
94	0:30:35.1	0.46
95	0:31:05.1	0.46
96	0:31:15.1	0.46
97	0:31:25.1	0.45
98	0:31:55.1	0.45

WELL ID: MW-6

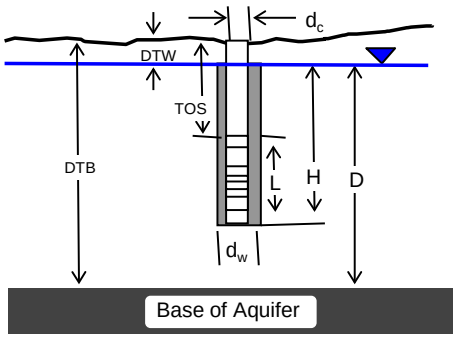
Project ID: Brown & Caldwell Phase III

Date: 1/26/2021

Time: 0:21

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	0.79	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



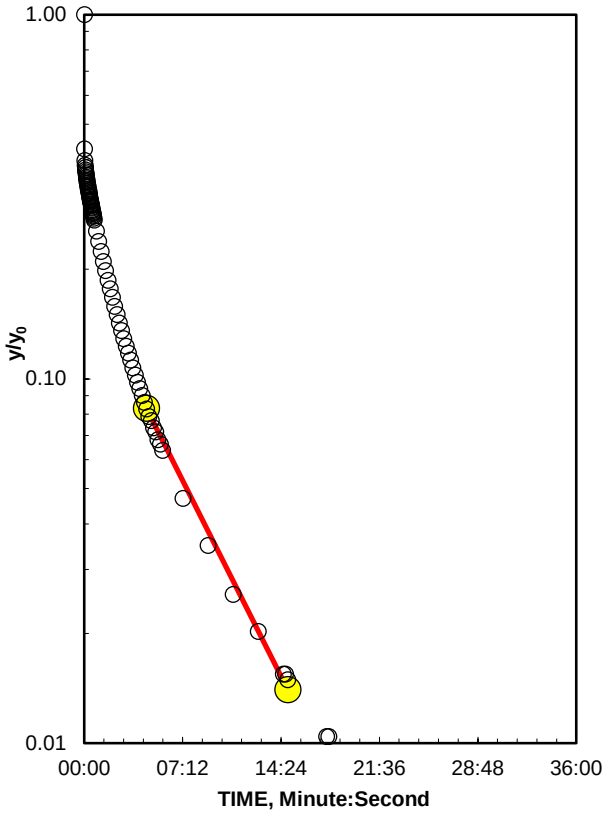
COMPUTED

L_{wetted}	10	Feet
D =	29.21	Feet
H =	14.21	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	3.56	Feet
$y_{0\text{-SLUG}}$ =	6.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.480	
B =	0.409	
ln(Re/rw) =	2.305	
Re =	3.44	Feet
Slope =	0.001245	log_{10}/sec
$t_{90\%}$ recovery =	803	sec

Input is consistent.

K = 0.2 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:21:08.5	4.35
2	0:21:09.5	2.31
3	0:21:10.5	2.20
4	0:21:11.5	2.16
5	0:21:12.5	2.14
6	0:21:13.5	2.12
7	0:21:14.5	2.11
8	0:21:15.5	2.09
9	0:21:16.5	2.08
10	0:21:17.5	2.06
11	0:21:18.5	2.05
12	0:21:19.5	2.04
13	0:21:20.5	2.03
14	0:21:21.5	2.01
15	0:21:22.5	2.00
16	0:21:23.5	1.99
17	0:21:24.5	1.98
18	0:21:25.5	1.97
19	0:21:26.5	1.96
20	0:21:27.5	1.96
21	0:21:28.5	1.95
22	0:21:29.5	1.94
23	0:21:30.5	1.92
24	0:21:31.5	1.92
25	0:21:32.5	1.91
26	0:21:33.5	1.90
27	0:21:34.5	1.89
28	0:21:35.5	1.88
29	0:21:36.5	1.88
30	0:21:37.5	1.87
31	0:21:38.5	1.86
32	0:21:39.5	1.85
33	0:21:40.5	1.84
34	0:21:41.5	1.84
35	0:21:42.5	1.83
36	0:21:43.5	1.82
37	0:21:44.5	1.81
38	0:21:45.5	1.80
39	0:21:46.5	1.80
40	0:21:47.5	1.79
41	0:21:48.5	1.78
42	0:21:49.5	1.77
43	0:21:51.5	1.76
44	0:22:01.5	1.69
45	0:22:11.5	1.64
46	0:22:21.5	1.59
47	0:22:31.5	1.54
48	0:22:41.5	1.49
49	0:22:51.5	1.45
50	0:23:01.5	1.42
51	0:23:11.5	1.39
52	0:23:21.5	1.35
53	0:23:31.5	1.32
54	0:23:41.5	1.30
55	0:23:51.5	1.27
56	0:24:01.5	1.25
57	0:24:11.5	1.23
58	0:24:21.5	1.21
59	0:24:31.5	1.19
60	0:24:41.5	1.17
61	0:24:51.5	1.15
62	0:25:01.5	1.14
63	0:25:11.5	1.12
64	0:25:21.5	1.11
65	0:25:31.5	1.10
66	0:25:41.5	1.08
67	0:25:51.5	1.07
68	0:26:01.5	1.06
69	0:26:11.5	1.05
70	0:26:21.5	1.04
71	0:26:31.5	1.03
72	0:26:41.5	1.03
73	0:26:51.5	1.02
74	0:28:21.5	0.96
75	0:30:11.5	0.91
76	0:32:01.5	0.88
77	0:33:51.5	0.86
78	0:35:41.5	0.84
79	0:35:51.5	0.84
80	0:36:01.5	0.84
81	0:38:51.5	0.83
82	0:39:01.5	0.83
83	0:41:51.5	0.81
84	0:43:41.5	0.81
85	0:43:51.5	0.81
86	0:44:01.5	0.81
87	0:45:31.5	0.80
88	0:45:41.5	0.80
89	0:45:51.5	0.80
90	0:47:11.5	0.80
91	0:48:01.5	0.80
92	0:48:51.5	0.80
93	0:49:41.5	0.79
94	0:50:51.5	0.79
95	0:51:01.5	0.79

WELL ID: MW-7

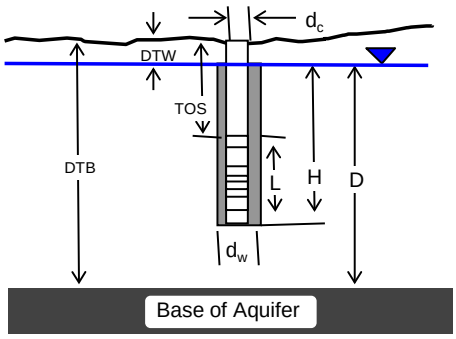
Project ID: Brown & Caldwell Phase III

Date: 1/26/2021

Time: 0:26

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	9.26	Feet
top of screen (TOS)	7.5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



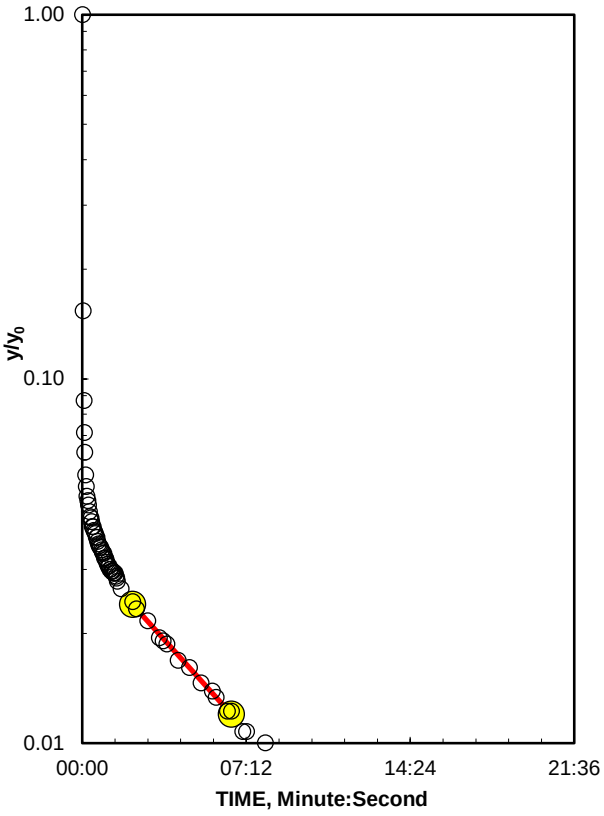
COMPUTED

L_{wetted}	8.24	Feet
D =	20.74	Feet
H =	8.24	Feet
L/r_w =	23.97	
$y_{0\text{-DISPLACEMENT}}$ =	5.40	Feet
$y_{0\text{-SLUG}}$ =	6.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.333	
B =	0.376	
ln(Re/rw) =	2.000	
Re =	2.54	Feet
Slope =	0.001158	log_{10}/sec
$t_{90\%}$ recovery =	864	sec

Input is consistent.

K = 0.2 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:26:03.0	14.66
2	0:26:05.0	10.09
3	0:26:07.0	9.73
4	0:26:08.0	9.64
5	0:26:09.0	9.60
6	0:26:11.0	9.55
7	0:26:13.0	9.53
8	0:26:15.0	9.52
9	0:26:17.0	9.51
10	0:26:19.0	9.50
11	0:26:21.0	9.49
12	0:26:23.0	9.49
13	0:26:25.0	9.48
14	0:26:27.0	9.48
15	0:26:29.0	9.47
16	0:26:31.0	9.47
17	0:26:33.0	9.47
18	0:26:35.0	9.47
19	0:26:37.0	9.46
20	0:26:39.0	9.46
21	0:26:41.0	9.46
22	0:26:43.0	9.45
23	0:26:45.0	9.45
24	0:26:47.0	9.45
25	0:26:49.0	9.45
26	0:26:51.0	9.45
27	0:26:53.0	9.44
28	0:26:55.0	9.44
29	0:26:57.0	9.44
30	0:26:59.0	9.44
31	0:27:01.0	9.43
32	0:27:03.0	9.43
33	0:27:05.0	9.43
34	0:27:07.0	9.43
35	0:27:09.0	9.43
36	0:27:11.0	9.43
37	0:27:13.0	9.43
38	0:27:15.0	9.42
39	0:27:17.0	9.42
40	0:27:19.0	9.42
41	0:27:21.0	9.42
42	0:27:23.0	9.42
43	0:27:25.0	9.42
44	0:27:27.0	9.42
45	0:27:29.0	9.42
46	0:27:31.0	9.42
47	0:27:33.0	9.41
48	0:27:35.0	9.41
49	0:27:45.0	9.40
50	0:28:15.0	9.39
51	0:28:25.0	9.39
52	0:28:55.0	9.38
53	0:29:25.0	9.37
54	0:29:35.0	9.36
55	0:29:45.0	9.36
56	0:30:15.0	9.35
57	0:30:45.0	9.35
58	0:31:15.0	9.34
59	0:31:45.0	9.34
60	0:31:55.0	9.33
61	0:32:25.0	9.33
62	0:32:35.0	9.33
63	0:33:05.0	9.32
64	0:33:15.0	9.32
65	0:33:55.0	9.31
66	0:34:05.0	9.31
67	0:34:45.0	9.31
68	0:35:05.0	9.30
69	0:35:15.0	9.30
70	0:35:25.0	9.30
71	0:35:55.0	9.30
72	0:36:25.0	9.30
73	0:36:35.0	9.30
74	0:36:45.0	9.29
75	0:37:15.0	9.29
76	0:37:45.0	9.29
77	0:37:55.0	9.29
78	0:38:25.0	9.28
79	0:38:55.0	9.28
80	0:39:05.0	9.27
81	0:39:35.0	9.27
82	0:40:05.0	9.27
83	0:40:15.0	9.27
84	0:40:25.0	9.27
85	0:40:55.0	9.27
86	0:41:05.0	9.27
87	0:41:25.0	9.27
88	0:41:35.0	9.27
89	0:41:55.0	9.27
90	0:42:25.0	9.27
91	0:42:35.0	9.27
92	0:42:55.0	9.27
93	0:43:15.0	9.27
94	0:43:25.0	9.27
95	0:43:55.0	9.27
96	0:44:25.0	9.26
97	0:44:55.0	9.26
98	0:45:25.0	9.26
99	0:45:55.0	9.26

WELL ID: MW-10

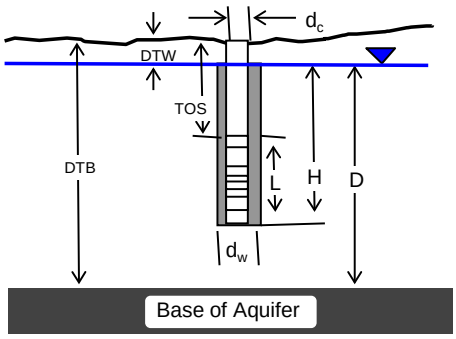
Project ID: Brown & Caldwell Phase III

Date: 1/26/2021

Time: 0:38

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	9.96	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



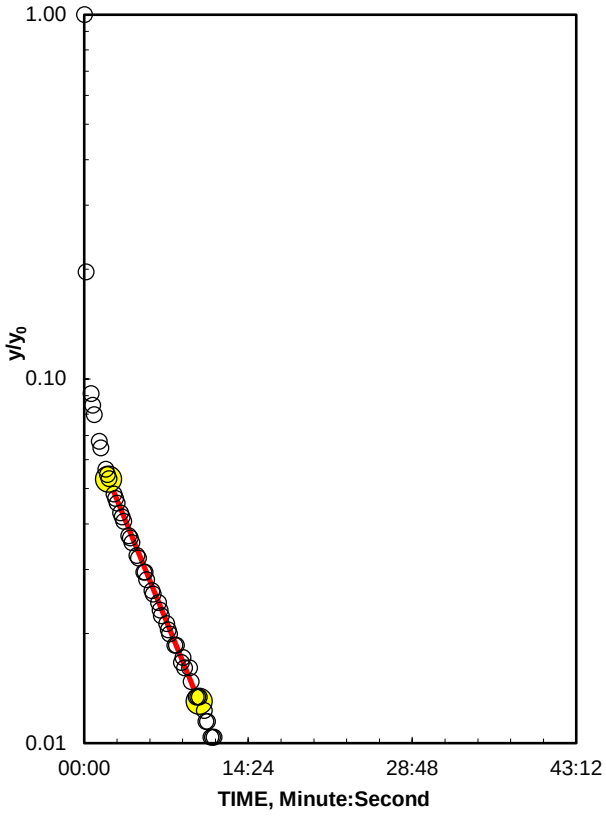
COMPUTED

L_{wetted}	5.04	Feet
D =	20.04	Feet
H =	5.04	Feet
L/r_w =	14.66	
$y_{0\text{-DISPLACEMENT}}$ =	3.67	Feet
$y_{0\text{-SLUG}}$ =	6.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.052	
B =	0.309	
ln(Re/rw) =	1.589	
Re =	1.68	Feet
Slope =	0.001282	log_{10}/sec
$t_{90\%}$ recovery =	780	sec

Input is consistent.

K = 0.3 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:38:21.3	13.67
2	0:38:29.3	10.72
3	0:38:56.3	10.33
4	0:39:04.3	10.31
5	0:39:12.3	10.29
6	0:39:39.3	10.25
7	0:39:47.3	10.24
8	0:40:14.3	10.21
9	0:40:22.3	10.20
10	0:40:30.3	10.20
11	0:40:57.3	10.18
12	0:41:05.3	10.17
13	0:41:13.3	10.17
14	0:41:32.3	10.16
15	0:41:40.3	10.15
16	0:41:48.3	10.15
17	0:42:15.3	10.14
18	0:42:23.3	10.13
19	0:42:31.3	10.13
20	0:42:58.3	10.12
21	0:43:06.3	10.12
22	0:43:33.3	10.11
23	0:43:41.3	10.11
24	0:43:49.3	10.10
25	0:44:16.3	10.10
26	0:44:24.3	10.09
27	0:44:51.3	10.09
28	0:44:59.3	10.09
29	0:45:07.3	10.08
30	0:45:34.3	10.08
31	0:45:42.3	10.08
32	0:45:50.3	10.07
33	0:46:17.3	10.07
34	0:46:25.3	10.07
35	0:46:52.3	10.06
36	0:47:00.3	10.06
37	0:47:08.3	10.06
38	0:47:35.3	10.06
39	0:47:43.3	10.05
40	0:48:10.3	10.05
41	0:48:18.3	10.05
42	0:48:26.3	10.05
43	0:48:53.3	10.05
44	0:49:01.3	10.04
45	0:49:09.3	10.04
46	0:49:28.3	10.04
47	0:49:36.3	10.04
48	0:49:44.3	10.04
49	0:50:11.3	10.03
50	0:50:19.3	10.03
51	0:50:27.3	10.03
52	0:50:54.3	10.03
53	0:51:02.3	10.03
54	0:51:29.3	10.03
55	0:51:37.3	10.02
56	0:51:45.3	10.02
57	0:52:12.3	10.02
58	0:52:20.3	10.02
59	0:52:28.3	10.02
60	0:52:47.3	10.02
61	0:52:55.3	10.02
62	0:53:03.3	10.02
63	0:53:30.3	10.01
64	0:53:38.3	10.01
65	0:53:46.3	10.01
66	0:54:56.3	10.01
67	0:55:39.3	10.01
68	0:56:06.3	10.00
69	0:56:22.3	10.00
70	0:56:49.3	10.00
71	0:57:32.3	10.00
72	1:00:16.3	9.99
73	1:00:59.3	9.99
74	1:01:26.3	9.98
75	1:01:42.3	9.98
76	1:02:09.3	9.98
77	1:02:52.3	9.98
78	1:04:02.3	9.98
79	1:05:36.3	9.97
80	1:06:19.3	9.97
81	1:06:46.3	9.97
82	1:07:29.3	9.97
83	1:08:12.3	9.97
84	1:09:22.3	9.97
85	1:10:56.3	9.97
86	1:11:39.3	9.97
87	1:12:06.3	9.96
88	1:12:49.3	9.96
89	1:13:32.3	9.96

WELL ID: MW-11

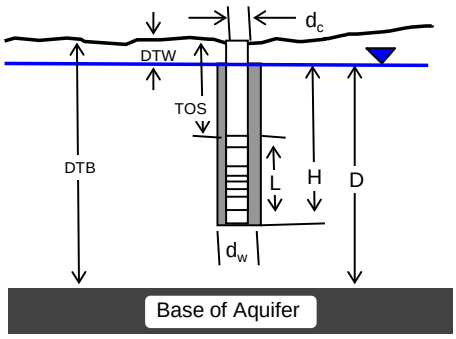
Project ID: Brown & Caldwell Phase III

Date: 1/26/2021

Time: 0:36

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	9.17	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Fine Sand	



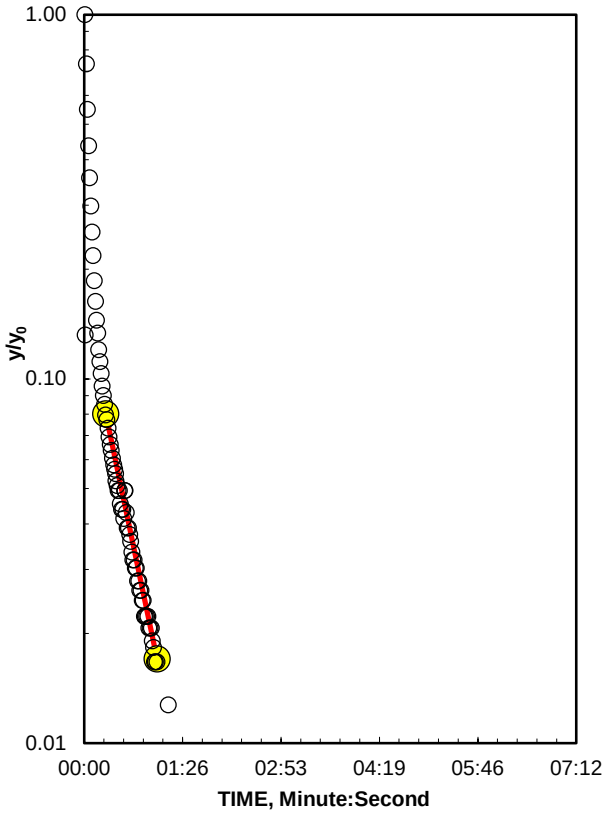
COMPUTED

L_{wetted}	5.83	Feet
D =	20.83	Feet
H =	5.83	Feet
L/r_w =	16.96	
$y_{0\text{-DISPLACEMENT}}$ =	1.26	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.118	
B =	0.325	
ln(Re/rw) =	1.707	
Re =	1.89	Feet
Slope =	0.014948	log_{10}/sec
$t_{90\%}$ recovery =	67	sec

Input is consistent.

K = 3 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:36:27.8	10.46
2	0:36:28.0	9.37
3	0:36:29.0	10.12
4	0:36:30.0	9.89
5	0:36:31.0	9.75
6	0:36:32.0	9.65
7	0:36:33.0	9.58
8	0:36:34.0	9.52
9	0:36:35.0	9.47
10	0:36:36.0	9.43
11	0:36:37.0	9.41
12	0:36:38.0	9.38
13	0:36:39.0	9.37
14	0:36:40.0	9.35
15	0:36:41.0	9.34
16	0:36:42.0	9.33
17	0:36:43.0	9.32
18	0:36:44.0	9.31
19	0:36:45.0	9.31
20	0:36:46.0	9.30
21	0:36:47.0	9.30
22	0:36:48.0	9.29
23	0:36:49.0	9.29
24	0:36:50.0	9.28
25	0:36:51.0	9.28
26	0:36:52.0	9.28
27	0:36:53.0	9.27
28	0:36:54.0	9.27
29	0:36:54.8	9.27
30	0:36:55.0	9.27
31	0:36:56.0	9.26
32	0:36:57.0	9.26
33	0:36:58.0	9.26
34	0:36:59.0	9.26
35	0:37:00.0	9.26
36	0:37:01.0	9.26
37	0:37:02.0	9.25
38	0:37:02.8	9.26
39	0:37:03.0	9.26
40	0:37:04.0	9.25
41	0:37:05.0	9.25
42	0:37:06.0	9.25
43	0:37:07.0	9.25
44	0:37:08.0	9.25
45	0:37:09.0	9.24
46	0:37:10.0	9.24
47	0:37:11.0	9.24
48	0:37:12.0	9.24
49	0:37:13.0	9.24
50	0:37:14.0	9.24
51	0:37:15.0	9.24
52	0:37:16.0	9.23
53	0:37:17.0	9.23
54	0:37:18.0	9.23
55	0:37:19.0	9.23
56	0:37:20.0	9.23
57	0:37:21.0	9.23
58	0:37:22.0	9.23
59	0:37:23.0	9.23
60	0:37:24.0	9.23
61	0:37:25.0	9.23
62	0:37:26.0	9.23
63	0:37:27.0	9.22
64	0:37:28.0	9.22
65	0:37:29.0	9.22
66	0:37:29.8	9.22
67	0:37:31.0	9.22
68	0:37:41.0	9.22
69	0:37:51.0	9.21
70	0:38:01.0	9.20
71	0:38:11.0	9.20
72	0:38:21.0	9.20
73	0:38:31.0	9.19
74	0:38:41.0	9.19
75	0:38:51.0	9.19
76	0:39:01.0	9.19
77	0:39:11.0	9.19
78	0:39:21.0	9.19
79	0:39:31.0	9.18
80	0:39:41.0	9.18
81	0:39:51.0	9.18
82	0:40:01.0	9.18
83	0:40:11.0	9.18
84	0:40:21.0	9.18
85	0:40:31.0	9.17
86	0:40:41.0	9.18
87	0:40:51.0	9.18
88	0:41:01.0	9.18
89	0:41:11.0	9.18
90	0:41:21.0	9.18
91	0:41:31.0	9.17
92	0:41:41.0	9.18
93	0:41:51.0	9.18
94	0:42:01.0	9.17

WELL ID: MW-12

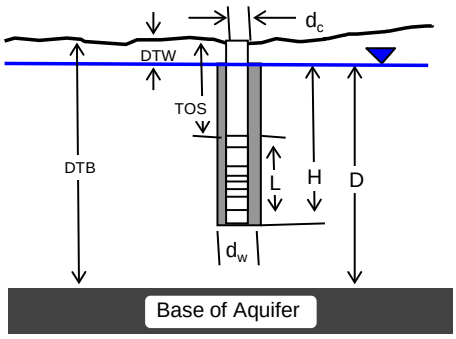
Project ID: Brown & Caldwell Phase III

Date: 1/28/2021

Time: 0:31

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	7.62	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



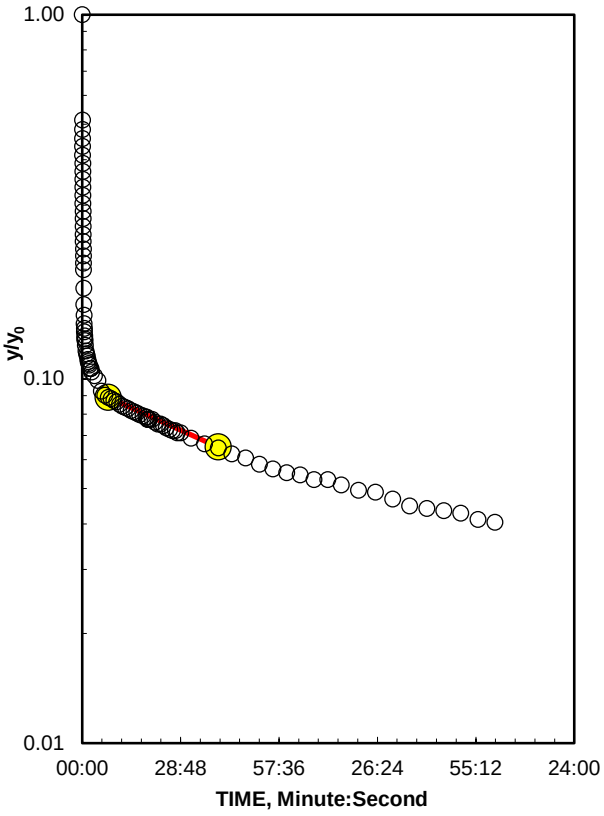
COMPUTED

L_{wetted}	7.38	Feet
D =	22.38	Feet
H =	7.38	Feet
L/r_w =	21.47	
$y_{0\text{-DISPLACEMENT}}$ =	2.97	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.253	
B =	0.357	
ln(Re/rw) =	1.899	
Re =	2.30	Feet
Slope =	7.06E-05	log_{10}/sec
$t_{90\%}$ recovery =	14164	sec

Input is consistent.

K = 0.01 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:31:25.9	10.47
2	0:31:26.9	9.03
3	0:31:27.9	8.94
4	0:31:28.9	8.86
5	0:31:29.9	8.79
6	0:31:30.9	8.72
7	0:31:31.9	8.66
8	0:31:32.9	8.60
9	0:31:33.9	8.55
10	0:31:34.9	8.50
11	0:31:35.9	8.45
12	0:31:36.9	8.40
13	0:31:37.9	8.36
14	0:31:38.9	8.32
15	0:31:39.9	8.28
16	0:31:40.9	8.24
17	0:31:41.9	8.21
18	0:31:42.9	8.18
19	0:31:43.9	8.15
20	0:31:44.9	8.12
21	0:31:45.9	8.09
22	0:31:48.9	8.03
23	0:31:51.9	7.98
24	0:31:54.9	7.94
25	0:31:57.9	7.92
26	0:32:00.9	7.91
27	0:32:03.9	7.90
28	0:32:06.9	7.89
29	0:32:09.9	7.88
30	0:32:12.9	7.88
31	0:32:19.9	7.87
32	0:32:29.9	7.85
33	0:32:39.9	7.85
34	0:32:49.9	7.84
35	0:32:59.9	7.84
36	0:33:09.9	7.83
37	0:33:19.9	7.83
38	0:33:29.9	7.82
39	0:33:39.9	7.82
40	0:33:49.9	7.82
41	0:33:59.9	7.82
42	0:34:09.9	7.81
43	0:34:59.9	7.80
44	0:35:59.9	7.79
45	0:36:59.9	7.78
46	0:37:59.9	7.77
47	0:38:59.9	7.76
48	0:39:49.9	7.76
49	0:40:39.9	7.76
50	0:41:29.9	7.76
51	0:42:19.9	7.75
52	0:43:09.9	7.75
53	0:43:59.9	7.75
54	0:44:49.9	7.75
55	0:45:39.9	7.74
56	0:46:29.9	7.74
57	0:47:19.9	7.74
58	0:48:09.9	7.74
59	0:49:09.9	7.74
60	0:49:59.9	7.73
61	0:50:19.9	7.73
62	0:50:29.9	7.73
63	0:50:39.9	7.73
64	0:50:49.9	7.73
65	0:50:59.9	7.73
66	0:51:49.9	7.73
67	0:52:39.9	7.73
68	0:53:29.9	7.72
69	0:54:19.9	7.72
70	0:55:09.9	7.72
71	0:55:59.9	7.72
72	0:56:59.9	7.72
73	0:57:49.9	7.71
74	0:58:39.9	7.71
75	0:59:12.9	7.71
76	1:00:12.9	7.71
77	1:03:12.9	7.70
78	1:07:12.9	7.70
79	1:11:12.9	7.69
80	1:15:12.9	7.69
81	1:19:12.9	7.68
82	1:23:12.9	7.67
83	1:27:12.9	7.67
84	1:31:12.9	7.66
85	1:35:12.9	7.66
86	1:39:12.9	7.66
87	1:43:12.9	7.66
88	1:47:12.9	7.65
89	1:52:12.9	7.65
90	1:57:12.9	7.65
91	2:02:12.9	7.64
92	2:07:12.9	7.63
93	2:12:12.9	7.63
94	2:17:12.9	7.63
95	2:22:12.9	7.63
96	2:27:12.9	7.62
97	2:32:12.9	7.62

WELL ID: MW-13

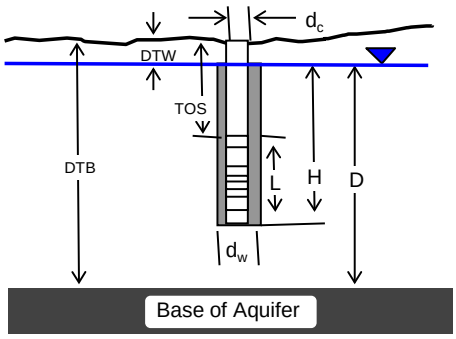
Project ID: Brown & Caldwell Phase III

Date: 1/25/2021

Time: 0:50

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	1.32	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	30	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



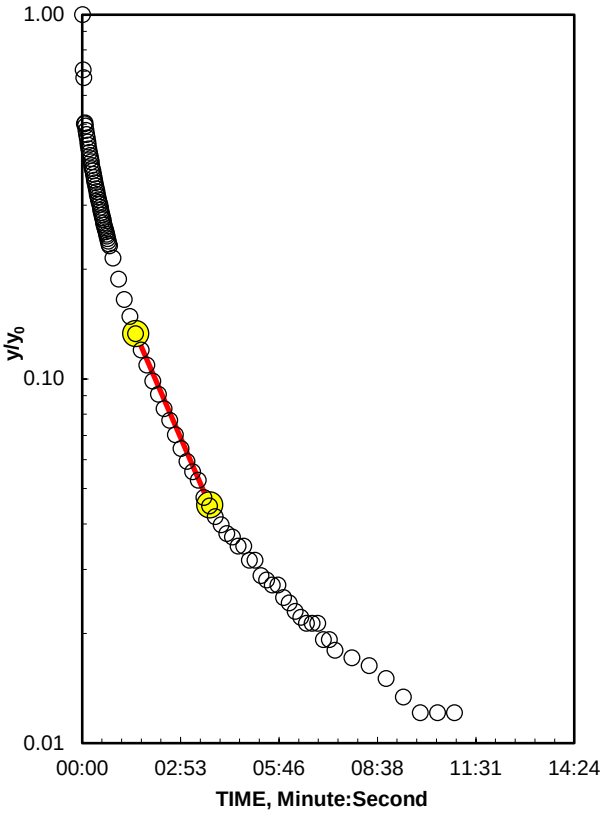
COMPUTED

L_{wetted}	10	Feet
D =	28.68	Feet
H =	13.68	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	2.39	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Partial penetrate A =	2.480	
B =	0.409	
ln(Re/rw) =	2.289	
Re =	3.39	Feet
Slope =	0.00362	log_{10}/sec
$t_{90\%}$ recovery =	276	sec

Input is consistent.

K = 0.6 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Reduced Data

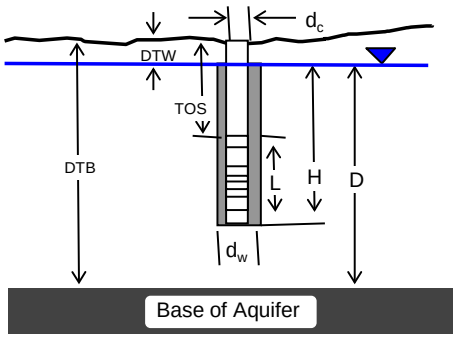
Entry	Time, Hr:Min:Sec	Water Level
1	0:50:06.5	3.69
2	0:50:07.5	2.99
3	0:50:08.5	2.91
4	0:50:09.5	2.50
5	0:50:10.5	2.51
6	0:50:11.5	2.48
7	0:50:12.5	2.45
8	0:50:13.5	2.42
9	0:50:14.5	2.40
10	0:50:15.5	2.37
11	0:50:16.5	2.35
12	0:50:17.5	2.32
13	0:50:18.5	2.30
14	0:50:19.5	2.28
15	0:50:20.5	2.26
16	0:50:21.5	2.24
17	0:50:22.5	2.22
18	0:50:23.5	2.20
19	0:50:24.5	2.19
20	0:50:25.5	2.17
21	0:50:26.5	2.15
22	0:50:27.5	2.14
23	0:50:28.5	2.13
24	0:50:29.5	2.11
25	0:50:30.5	2.10
26	0:50:31.5	2.08
27	0:50:32.5	2.07
28	0:50:33.5	2.06
29	0:50:34.5	2.04
30	0:50:35.5	2.03
31	0:50:36.5	2.02
32	0:50:37.5	2.01
33	0:50:38.5	2.00
34	0:50:39.5	1.98
35	0:50:40.5	1.97
36	0:50:41.5	1.96
37	0:50:42.5	1.95
38	0:50:43.5	1.94
39	0:50:44.5	1.93
40	0:50:45.5	1.92
41	0:50:46.5	1.92
42	0:50:47.5	1.91
43	0:50:48.5	1.90
44	0:50:49.5	1.89
45	0:50:50.5	1.88
46	0:50:51.5	1.87
47	0:50:52.5	1.86
48	0:50:53.5	1.85
49	0:50:59.5	1.81
50	0:51:09.5	1.75
51	0:51:19.5	1.70
52	0:51:29.5	1.66
53	0:51:39.5	1.62
54	0:51:49.5	1.59
55	0:51:59.5	1.56
56	0:52:09.5	1.54
57	0:52:19.5	1.52
58	0:52:29.5	1.50
59	0:52:39.5	1.48
60	0:52:49.5	1.47
61	0:52:59.5	1.45
62	0:53:09.5	1.44
63	0:53:19.5	1.43
64	0:53:29.5	1.43
65	0:53:39.5	1.41
66	0:53:49.5	1.41
67	0:53:59.5	1.40
68	0:54:09.5	1.40
69	0:54:19.5	1.39
70	0:54:29.5	1.39
71	0:54:39.5	1.38
72	0:54:49.5	1.38
73	0:54:59.5	1.38
74	0:55:09.5	1.38
75	0:55:19.5	1.37
76	0:55:29.5	1.37
77	0:55:39.5	1.37
78	0:55:49.5	1.37
79	0:55:59.5	1.36
80	0:56:09.5	1.36
81	0:56:19.5	1.36
82	0:56:29.5	1.35
83	0:56:39.5	1.35
84	0:56:49.5	1.35
85	0:56:59.5	1.35
86	0:57:09.5	1.35
87	0:57:19.5	1.35
88	0:57:29.5	1.34
89	0:57:59.5	1.34
90	0:58:29.5	1.34
91	0:58:59.5	1.34
92	0:59:29.5	1.33
93	0:59:59.5	1.33
94	1:00:29.5	1.33
95	1:00:59.5	1.33
96	1:01:29.5	1.32
97	1:01:59.5	1.32

WELL ID: 210 McKenzie

Local ID: MW-14
Date: 1/25/2021
Time: 0:28

INPUT

Construction:		
Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8.25	Inch
Screen Length (L)	10	Feet
Depths to:		
water level (DTW)	1.71	Feet
top of screen (TOS)	5	Feet
Base of Aquifer (DTB)	15	Feet
Annular Fill:		
across screen --	Coarse Sand	
above screen --	Bentonite	
Aquifer Material --	Clay soils (surface)	



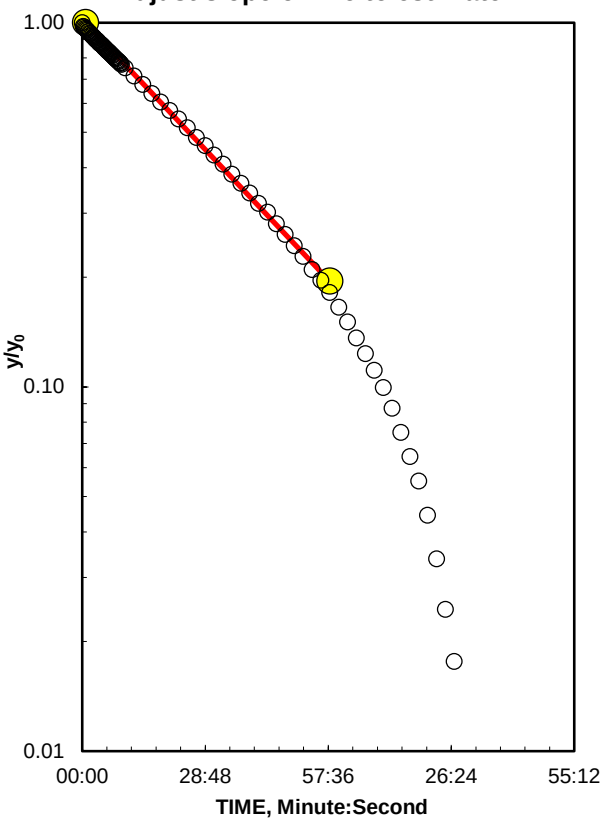
COMPUTED

L_{wetted}	10	Feet
D =	13.29	Feet
H =	13.29	Feet
L/r_w =	29.09	
$y_{0\text{-DISPLACEMENT}}$ =	1.31	Feet
$y_{0\text{-SLUG}}$ =	2.25	Feet
From look-up table using L/r_w		
Fully penetrate C =	2.041	
ln(Re/rw) =	2.695	
Re =	5.09	Feet
Slope =	0.000207	log_{10}/sec
$t_{90\%}$ recovery =	4833	sec

Input is consistent.

K = 0.04 Feet/Day

Adjust slope of line to estimate K



REMARKS: Bouwer and Rice analysis of slug test, WRR 1976

Initial test

Reduced Data

Entry	Time, Hr:Min:Sec	Water Level
1	0:28:08.9	10.89
2	0:28:21.4	10.85
3	0:28:33.9	10.85
4	0:28:46.4	10.84
5	0:28:58.9	10.83
6	0:29:11.4	10.83
7	0:29:23.9	10.82
8	0:29:36.4	10.81
9	0:29:48.9	10.80
10	0:30:01.4	10.80
11	0:30:13.9	10.79
12	0:30:26.4	10.78
13	0:30:38.9	10.77
14	0:30:51.4	10.77
15	0:31:03.9	10.76
16	0:31:16.4	10.75
17	0:31:28.9	10.75
18	0:31:41.4	10.74
19	0:31:53.9	10.74
20	0:32:06.4	10.73
21	0:32:18.9	10.72
22	0:32:31.4	10.72
23	0:32:43.9	10.71
24	0:32:56.4	10.71
25	0:33:08.9	10.70
26	0:33:21.4	10.69
27	0:33:33.9	10.69
28	0:33:46.4	10.68
29	0:33:58.9	10.67
30	0:34:11.4	10.67
31	0:34:23.9	10.66
32	0:34:36.4	10.66
33	0:34:48.9	10.65
34	0:35:01.4	10.65
35	0:35:13.9	10.64
36	0:35:26.4	10.63
37	0:35:38.9	10.63
38	0:35:51.4	10.62
39	0:36:03.9	10.62
40	0:36:16.4	10.61
41	0:36:28.9	10.61
42	0:36:41.4	10.60
43	0:36:53.9	10.59
44	0:37:06.4	10.59
45	0:37:18.9	10.58
46	0:38:08.9	10.56
47	0:40:13.9	10.51
48	0:42:18.9	10.46
49	0:44:23.9	10.41
50	0:46:28.9	10.37
51	0:48:33.9	10.33
52	0:50:38.9	10.29
53	0:52:43.9	10.25
54	0:54:48.9	10.21
55	0:56:53.9	10.18
56	0:58:58.9	10.15
57	1:01:03.9	10.11
58	1:03:08.9	10.08
59	1:05:13.9	10.05
60	1:07:18.9	10.03
61	1:09:23.9	10.00
62	1:11:28.9	9.97
63	1:13:33.9	9.95
64	1:15:38.9	9.92
65	1:17:43.9	9.90
66	1:19:48.9	9.88
67	1:21:53.9	9.85
68	1:23:58.9	9.84
69	1:26:03.9	9.82
70	1:28:08.9	9.80
71	1:30:13.9	9.78
72	1:32:18.9	9.76
73	1:34:23.9	9.74
74	1:36:28.9	9.73
75	1:38:33.9	9.71
76	1:40:38.9	9.69
77	1:42:43.9	9.68
78	1:44:48.9	9.66
79	1:46:53.9	9.65
80	1:48:58.9	9.64
81	1:51:03.9	9.62
82	1:53:08.9	9.61
83	1:55:13.9	9.60
84	1:57:18.9	9.59
85	1:59:23.9	9.58
86	2:01:28.9	9.57

APPENDIX K

Preliminary Remediation Cost Estimates

Site Remediation Planning Level Costs - Post Point Biosolids
Alternative 1a - Partial Soil Excavation with Off-Site Disposal, CAP, Env. Covenant, and MNA
(assumes approximately 25% of excavated soil designates as WT02)

Remediation Costs				
ITEM	UNIT COST	UNITS	QUANTITY	COST
Pre-Construction Costs				
• Feasibility Study, CAP, and Engineering Design Reports	$100,000	lump sum	1	$100,000
• Workplan, Remediation Engineering, and Permitting	$40,000	lump sum	1	$40,000
Construction Costs				
• Site Preparation	$10,000	lump sum	1	$10,000
• Monitoring Well Decommissioning	$500	each	4	$2,000
• Asphalt/Concrete Removal and Disposal	$2	square ft	1,400	$2,800
• Excavate, Load, Transport, and Dispose of PCS (WT02)	$150	ton	1,650	$247,500
• Excavate, Load, Transport, and Dispose of PCS (non-WT02)	$120	ton	4,950	$594,000
• Dewatering and Treatment/Disposal of Contaminated Water	$100,000	lump sum	1	$100,000
• Import, Place, and Compact Clean Fill Material	$40	ton	6,600	$264,000
• Oversight of Excavation and Backfilling	$10,000	week	6	$60,000
• Confirmational Soil Sampling - During Excavation	$60,000	lump sum	1	$60,000
• Waste Characterization Stockpile Sampling	$2,500	per sample	15	$37,500
Post Excavation Costs				
• Environmental Covenant Preparation	$20,000	lump sum	1	$20,000
• MNA Workplan	$5,000	lump sum	1	$5,000
• Monitoring Well Installation and Development	$3,500	each	4	$14,000
			Total Remediation Costs	**$1,556,800**

Annual Costs (10 Years of Semi-Annual Groundwater Monitoring)				
ITEM	ANNUAL COST	UNITS	QUANTITY	COST
• Confirmational Groundwater Monitoring and Reporting - 10 Years *(includes labor & laboratory costs)*	$30,000	lump sum	10	$300,000
• Cleanup Action Report, NFA Request, and Well Abandonment	$50,000	lump sum	1	$50,000
			Total Annual Costs	**$350,000**

Subtotal Estimated Costs	**$1,906,800**
Cost Contingency (20%)	**$762,720**
Total Cost	**$2,669,520**

Assumptions:

- *Assumes no sheet piling is needed in excavations. Volume estimates do not include layback.*
- *Dewatering costs are an allowance; costs may differ based on treatment/disposal method chosen.*
- *Assumes soil will be stockpiled and dewatered onsite. Moisture control amendment costs not included.*
- *Does not account for replacement of any paved surfaces (to be completed as part of site redevelopment).*
- *Confirmation soil sampling assumes approximately 85 samples analyzed for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*
- *Number of waste characterization samples determined based on Table 6.9 in Guidance for Remediation of Petroleum Contaminated Sites.*
- *Confirmation groundwater sampling assumes 10 years of semi-annual monitoring analyzing for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes (additional monitoring to be evaluated at 10 years).*

Site Remediation Planning Level Costs - Post Point Biosolids
Alternative 1b - Partial Soil Excavation with Off-Site Disposal, CAP, Env. Covenant, and MNA
(assumes all excavated soil designates as WT02)

Remediation Costs				
ITEM	UNIT COST	UNITS	QUANTITY	COST
Pre-Construction Costs				
• Feasibility Study, CAP, and Engineering Design Reports	$100,000	lump sum	1	$100,000
• Workplan, Remediation Engineering, and Permitting	$40,000	lump sum	1	$40,000
Construction Costs				
• Site Preparation	$10,000	lump sum	1	$10,000
• Monitoring Well Decommissioning	$500	each	4	$2,000
• Asphalt/Concrete Removal and Disposal	$2	square ft	1,400	$2,800
• Excavate, Load, Transport, and Dispose of PCS (WT02)	$150	ton	6,600	$990,000
• Dewatering and Treatment/Disposal of Contaminated Water	$100,000	lump sum	1	$100,000
• Import, Place, and Compact Clean Fill Material	$40	ton	6,600	$264,000
• Oversight of Excavation and Backfilling	$10,000	week	6	$60,000
• Confirmational Soil Sampling - During Excavation	$60,000	lump sum	1	$60,000
• Waste Characterization Stockpile Sampling	$2,500	per sample	15	$37,500
Post Excavation Costs				
• Environmental Covenant Preparation	$20,000	lump sum	1	$20,000
• MNA Workplan	$5,000	lump sum	1	$5,000
• Monitoring Well Installation and Development	$3,500	each	4	$14,000
			Total Remediation Costs	**$1,705,300**

Annual Costs (10 Years of Semi-Annual Groundwater Monitoring)				
ITEM	ANNUAL COST	UNITS	QUANTITY	COST
• Confirmational Groundwater Monitoring and Reporting - 10 Years *(includes labor & laboratory costs)*	$30,000	lump sum	10	$300,000
• Cleanup Action Report, NFA Request, and Well Abandonment	$50,000	lump sum	1	$50,000
			Total Annual Costs	**$350,000**

Subtotal Estimated Costs	**$2,055,300**
Cost Contingency (20%)	**$822,120**
Total Cost	**$2,877,420**

Assumptions:

- *Assumes no sheet piling is needed in excavations. Volume estimates do not include layback.*
- *Dewatering costs are an allowance; costs may differ based on treatment/disposal method chosen.*
- *Assumes soil will be stockpiled and dewatered onsite. Moisture control amendment costs not included.*
- *Does not account for replacement of any paved surfaces (to be completed as part of site redevelopment).*
- *Confirmation soil sampling assumes approximately 85 samples analyzed for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*
- *Number of waste characterization samples determined based on Table 6.9 in Guidance for Remediation of Petroleum Contaminated Sites.*
- *Confirmation groundwater sampling assumes 10 years of semi-annual monitoring analyzing for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes (additional monitoring to be evaluated at 10 years).*

Site Remediation Planning Level Costs - Post Point Biosolids
Alternative 2a - Complete Soil Excavation with Off-Site Disposal and MNA
(assumes approximately 25% of excavated soil designates as WT02)

Remediation Costs				
ITEM	UNIT COST	UNITS	QUANTITY	COST
Pre-Construction Costs				
• Feasibility Study, CAP, and Engineering Design Reports	$100,000	lump sum	1	$100,000
• Workplan, Remediation Engineering, and Permitting	$40,000	lump sum	1	$40,000
Construction Costs				
• Site Preparation	$10,000	lump sum	1	$10,000
• Monitoring Well Decommissioning	$500	each	6	$3,000
• Asphalt/Concrete Removal and Disposal	$2	square ft	2,600	$5,200
• Excavate, Load, Transport, and Dispose of PCS (WT02)	$150	ton	2,925	$438,750
• Excavate, Load, Transport, and Dispose of PCS (non-WT02)	$120	ton	8,775	$1,053,000
• Dewatering and Treatment/Disposal of Contaminated Water	$250,000	lump sum	1	$250,000
• Import, Place, and Compact Clean Fill Material	$40	ton	11,700	$468,000
• Oversight of Excavation and Backfilling	$10,000	week	10	$100,000
• Confirmational Soil Sampling - During Excavation	$100,000	lump sum	1	$100,000
• Waste Characterization Stockpile Sampling	$2,500	per sample	22	$55,000
Post Excavation Costs				
• MNA Workplan	$5,000	lump sum	1	$5,000
• Monitoring Well Installation and Development	$3,500	each	6	$21,000
			Total Remediation Costs	**$2,648,950**

Annual Costs (2 Years of Quarterly Groundwater Monitoring)				
ITEM	ANNUAL COST	UNITS	QUANTITY	COST
• Confirmational Groundwater Monitoring and Reporting - 2 Years *(includes labor & laboratory costs)*	$60,000	lump sum	2	$120,000
• Cleanup Action Report, NFA Request, and Well Abandonment	$50,000	lump sum	1	$50,000
			Total Annual Costs	**$170,000**

Subtotal Estimated Costs	**$2,818,950**
Cost Contingency (40%)	**$1,127,580**
Total Cost	**$3,946,530**

Assumptions:

- *Assumes no sheet piling is needed in excavations. Volume estimates do not include layback.*
- *Dewatering costs are an allowance; costs may differ based on treatment/disposal method chosen.*
- *Assumes soil will be stockpiled and dewatered onsite. Moisture control amendment costs not included.*
- *Does not account for replacement of any paved surfaces (to be done as part of site redevelopment).*
- *Confirmation soil sampling assumes approximately 125 samples analyzed for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*
- *Number of waste characterization samples determined based on Table 6.9 in Guidance for Remediation of Petroleum Contaminated Sites.*
- *Confirmation groundwater sampling assumes 2 years of quarterly monitoring analyzing for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*

Site Remediation Planning Level Costs - Post Point Biosolids
Alternative 2b - Complete Soil Excavation with Off-Site Disposal and MNA
(assumes all excavated soil designates at WT02)

Remediation Costs				
ITEM	UNIT COST	UNITS	QUANTITY	COST
Pre-Construction Costs				
• Feasibility Study, CAP, and Engineering Design Reports	$100,000	lump sum	1	$100,000
• Workplan, Remediation Engineering, and Permitting	$40,000	lump sum	1	$40,000
Construction Costs				
• Site Preparation	$10,000	lump sum	1	$10,000
• Monitoring Well Decommissioning	$500	each	6	$3,000
• Asphalt/Concrete Removal and Disposal	$2	square ft	2,600	$5,200
• Excavate, Load, Transport, and Dispose of PCS (WT02)	$150	ton	11,700	$1,755,000
• Dewatering and Treatment/Disposal of Contaminated Water	$250,000	lump sum	1	$250,000
• Import, Place, and Compact Clean Fill Material	$40	ton	11,700	$468,000
• Oversight of Excavation and Backfilling	$10,000	week	10	$100,000
• Confirmational Soil Sampling - During Excavation	$100,000	lump sum	1	$100,000
• Waste Characterization Stockpile Sampling	$2,500	per sample	22	$55,000
Post Excavation Costs				
• MNA Workplan	$5,000	lump sum	1	$5,000
• Monitoring Well Installation and Development	$3,500	each	6	$21,000
			Total Remediation Costs	**$2,912,200**

Annual Costs (2 Years of Quarterly Groundwater Monitoring)				
ITEM	ANNUAL COST	UNITS	QUANTITY	COST
• Confirmational Groundwater Monitoring and Reporting - 2 Years *(includes labor & laboratory costs)*	$60,000	lump sum	2	$120,000
• Cleanup Action Report, NFA Request, and Well Abandonment	$50,000	lump sum	1	$50,000
			Total Annual Costs	**$170,000**

Subtotal Estimated Costs	**$3,082,200**
Cost Contingency (40%)	**$1,232,880**
Total Cost	**$4,315,080**

Assumptions:

- *Assumes no sheet piling is needed in excavations. Volume estimates do not include layback.*
- *Dewatering costs are an allowance; costs may differ based on treatment/disposal method chosen.*
- *Assumes soil will be stockpiled and dewatered onsite. Moisture control amendment costs not included.*
- *Does not account for replacement of any paved surfaces (to be done as part of site redevelopment).*
- *Confirmation soil sampling assumes approximately 125 samples analyzed for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*
- *Number of waste characterization samples determined based on Table 6.9 in Guidance for Remediation of Petroleum Contaminated Sites.*
- *Confirmation groundwater sampling assumes 2 years of quarterly monitoring analyzing for Gx, Dx, BTEX, MTBE, RCRA 8 Metals, cPAHs, and Naphthalenes.*

APPENDIX L

Limitations

LIMITATIONS

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Performance of this investigation by Whatcom Environmental Services Inc. is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental contamination in connection with the site.

The interpretation of subsurface soil and groundwater conditions is based on Whatcom Environmental Services' field observations and chemical analytical data collected from relatively widely spaced sampling locations at the site. It is possible that contamination exists beneath portions of the site that were not explored, sampled, or analyzed. No warranty, express or implied, is given regarding the presence of hidden or unidentified sources of contamination of the site. In addition, no warranty, express or implied is given regarding geotechnical or geologic hazards.

This environmental report is based on conditions that existed at the time the investigation was performed and samples collected. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, ground instability, or groundwater fluctuations.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This report has been prepared for use by the City of Bellingham. Whatcom Environmental Services prepares a report for the client's exclusive use for a particular project and in accordance with generally accepted practices at the time of investigation. This report was prepared for exclusive use by the client and its agents and may not be used, relied upon, or assigned to a third party without written consent from Whatcom Environmental Services Inc. This report is not intended for use by others, and the information contained herein is not applicable to other sites. This report may be made available to regulatory agencies.

nwhatcom ENVIRONMENTAL
soil • water • air
compliance solutions

October 17, 2022

Ms. Shayla Francis
City of Bellingham
200 McKenzie Avenue
Bellingham, WA 98225

RE: Annual Groundwater Monitoring – 210 McKenzie Avenue, Bellingham, Washington

Ms. Francis:

The groundwater monitoring well system at 210 McKenzie Avenue in Bellingham, Washington was sampled on September 20 and 21, 2022. The monitoring well system consists of fourteen wells identified as MW-1 through MW-14. Monitoring wells MW-4 and MW-5 have been inaccessible since 2012 when construction activities covered the wells.

Groundwater Sampling Collection

Each monitoring well was sampled using a low-flow sampling technique which minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. Prior to sampling, the depth-to-water was measured in each well, and the groundwater elevation was calculated for the sampling event. A YSI Model 556 multi meter probe was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected when the water chemistry parameters had stabilized.

Groundwater samples were collected in sample bottles provided by the analytical laboratory and stored on ice in a cooler immediately after collection. One duplicate sample and one equipment blank sample were also collected during the sampling event. Standard industry protocols regarding sample collection, preservation, chain-of-custody, and shipping were followed. Groundwater samples were identified by the monitoring well

identification number of the well from which they were collected. All groundwater samples were analyzed at ALS Laboratory Group in Everett, Washington. Strict chain-of-custody and QA/QC protocols were followed for each sample. The groundwater samples were analyzed for diesel/oil range total petroleum hydrocarbons (TPH) via method NWTPH-Dx and for dissolved arsenic via method EPA-200.8.

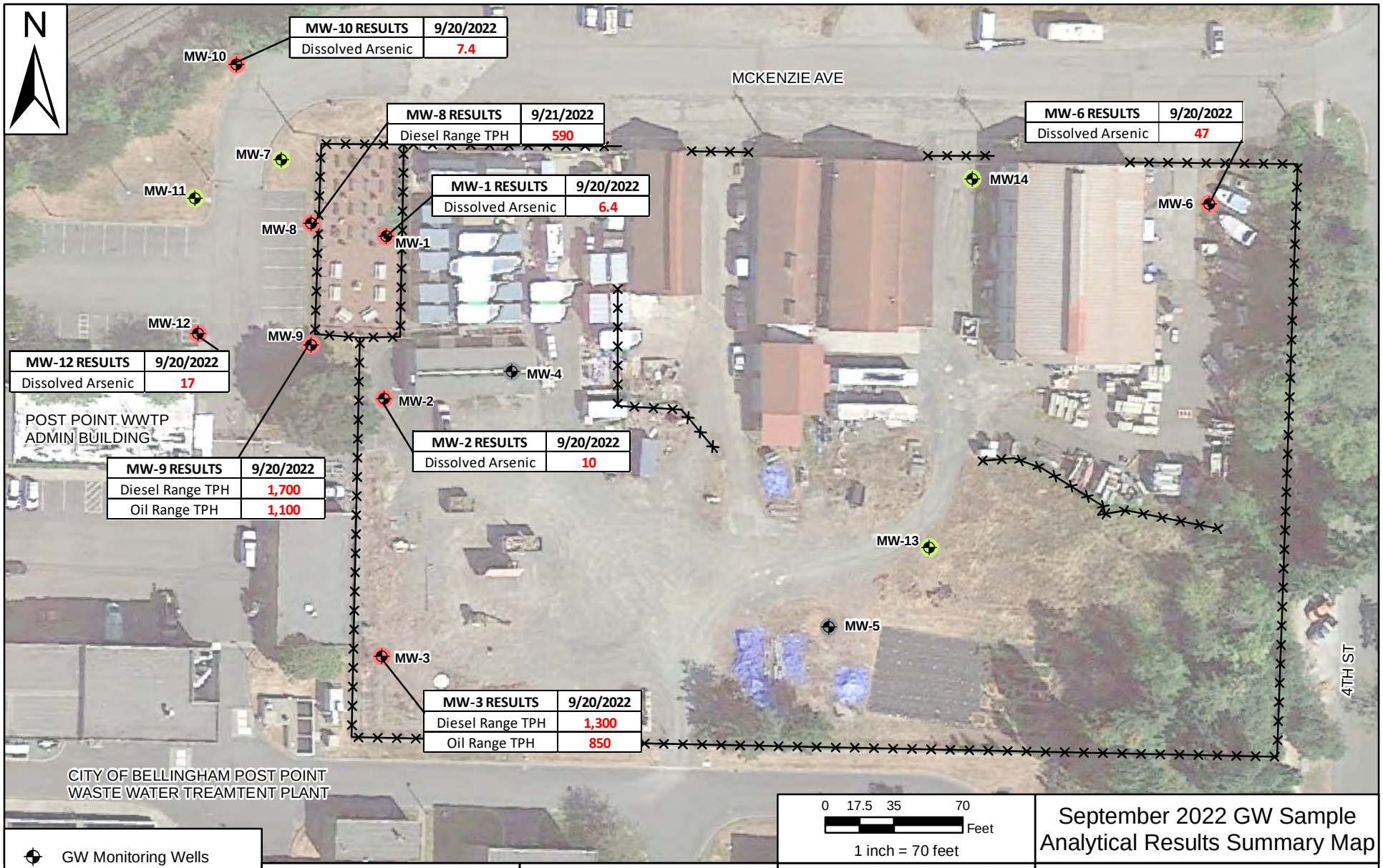
Groundwater Sample Results

The groundwater monitoring well locations and analytical data are shown on Figure 1. The groundwater flow direction and gradient for the September sampling event are shown on Figure 2. The groundwater laboratory analytical data are summarized in Table 1. The original laboratory analytical data report is provided in Appendix A.

Monitoring wells MW-3, MW-8, and MW-9 contained diesel and/or oil range TPH at concentrations which exceeded the MTCA Method A cleanup level. Monitoring wells MW-1, MW-2, MW-6, MW-10, MW-11, and MW-12 contained dissolved arsenic at concentrations which exceeded the MTCA Method A cleanup level.

Sincerely,

Aimee Pennell
Whatcom Environmental Services



All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

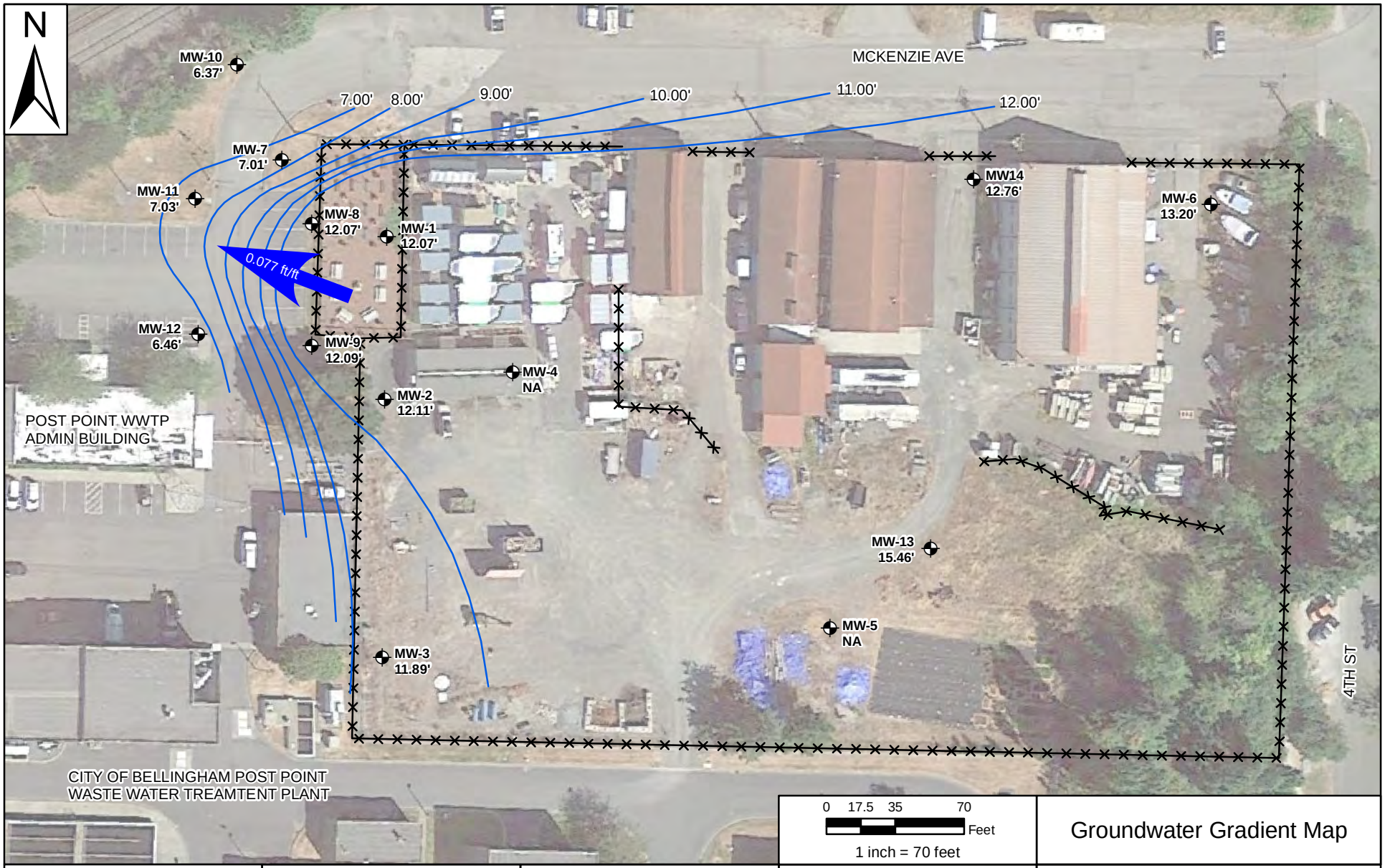
September 2022 GW Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie

10/10/2022

Figure 1



Groundwater Gradient Map

GW Monitoring Wells
GW Contours (9/20/2022)
Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie

10/10/2022

Figure 2

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-1	8/2/2007	ND(<130)	ND(<250)	**7**
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007 (dup.)	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008 (dup.)	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	1.1
	9/2/2009 (dup.)	ND(<130)	ND(<250)	1.7
	11/18/2009	ND(<130)	ND(<250)	ND(<1)
	3/18/2010	ND(<130)	ND(<250)	1.9
	6/23/2010	180	ND(<250)	3.6
	9/9/2010	ND(<130)	ND(<250)	**6.3**
	12/2/2010	ND(<130)	ND(<250)	3.5
	3/23/2011	ND(<130)	ND(<250)	**5.4**
	6/15/2011	ND(<130)	ND(<250)	**6.5**
	9/21/2011	ND(<130)	ND(<250)	**11**
	12/6/2011	ND(<130)	ND(<250)	**7.3**
	6/14/2012	NA	NA	**7.3**
	11/15/2012	NA	NA	**6.9**
	9/17/2014	NA	NA	**6**
	9/28/2015	NA	NA	**6**
	9/7/2016	NA	NA	**10**
	9/19/2017	NA	NA	4.8
	9/20/2018	NA	NA	**12**
	8/6/2019	NA	NA	**6.3**
	9/14/2020	NA	NA	**6.6**
	11/18/2020	ND(<130)	490	3.7
	9/20/2022	220	ND(<250)	**6.4**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-2	8/2/2007	ND(<130)	ND(<250)	**11**
	8/2/2007 (dup.)	ND(<130)	ND(<250)	NA
	12/6/2007	ND(<130)	ND(<250)	**12**
	3/12/2008	ND(<130)	ND(<250)	**15**
	6/16/2008	ND(<130)	ND(<250)	**6**
	9/15/2008	ND(<130)	ND(<250)	**20**
	3/4/2009	ND(<130)	ND(<250)	**8**
	3/4/2009 (dup.)	ND(<130)	ND(<250)	**8**
	6/4/2009	ND(<130)	ND(<250)	**15**
	9/2/2009	ND(<130)	ND(<250)	**18**
	11/18/2009	ND(<130)	ND(<250)	**17**
	3/18/2010	140	ND(<250)	**7.5**
	3/18/2010 (dup.)	150	ND(<250)	**9.1**
	6/23/2010	170	ND(<250)	**10**
	9/9/2010	ND(<130)	ND(<250)	**22**
	12/2/2010	ND(<130)	ND(<250)	**6.5**
	3/23/2011	ND(<130)	ND(<250)	**7.8**
	6/15/2011	ND(<130)	ND(<250)	**10**
	9/21/2011	210	ND(<250)	**15**
	12/6/2011	200	ND(<250)	4
	6/14/2012	ND(<130)	ND(<250)	**10**
	11/15/2012	NA	NA	**14**
	9/17/2014	NA	NA	**5.6**
	9/28/2015	NA	NA	4.7
	9/7/2016	NA	NA	**10**
	9/19/2017	NA	NA	2.2
	9/20/2018	NA	NA	**11**
	8/6/2019	NA	NA	**13**
	9/14/2020	NA	NA	**9.1**
	11/18/2020	ND(<130)	**650**	**8.9**
	9/20/2022	370	ND(<250)	**10**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-3	8/2/2007	150	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	3/12/2008 (dup.)	ND(<130)	ND(<250)	NA
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	180	ND(<250)	ND(<5)
	6/4/2009	150	ND(<250)	ND(<5)
	6/4/2009 (dup.)	160	ND(<250)	ND(<5)
	9/2/2009	170	ND(<250)	1.7
	11/18/2009	250	ND(<250)	2.3
	3/18/2010	190	ND(<250)	ND(<1.8)
	6/23/2010	210	ND(<250)	2.3
	9/9/2010	370	ND(<250)	**5.7**
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	3.6
	6/15/2011	ND(<130)	ND(<250)	3.9
	9/21/2011	150	ND(<250)	**8.4**
	12/6/2011	360	ND(<250)	2.3
	6/14/2012	190	ND(<250)	2.6
	6/14/2012 (dup.)	130	ND(<250)	2.8
	11/15/2012	NA	NA	3.0
	9/17/2014	NA	NA	3.0
	9/28/2015	NA	NA	2.9
	9/7/2016	NA	NA	**7.1**
	9/7/2016 (dup.)	NA	NA	**6.9**
	9/19/2017	NA	NA	2.1
	9/20/2018	NA	NA	2.1
	8/6/2019	NA	NA	3.4
	9/14/2020	NA	NA	1.2
	9/14/2020 (dup. WES-dup-1)	NA	NA	1.0
	11/18/2020	**760**	420	1.0
	11/18/2020 (dup. MW-Dup-1)	**810**	360	1.1
	9/20/2022	**1,300**	**850**	1.0
	9/20/2022 (dup. MW-Dup-1)	**990**	**520**	1.1

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-4	8/2/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	ND(<1)
	11/18/2009	ND(<130)	ND(<250)	ND(<1)
	3/18/2010	ND(<130)	ND(<250)	ND(<1.8)
	6/23/2010	ND(<130)	ND(<250)	ND(<1.8)
	9/9/2010	ND(<130)	ND(<250)	ND(<1.8)
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	2.5
	6/15/2011	ND(<130)	ND(<250)	1.9
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	6/14/2012	NA	NA	ND(<1)
	Well covered during construction activities			
MW-5	8/2/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	1.3
	11/18/2009	ND(<130)	ND(<250)	1.5
	3/18/2010	ND(<130)	ND(<250)	ND(<1.8)
	6/23/2010	160	ND(<250)	ND(<1.8)
	9/9/2010	ND(<130)	ND(<250)	2.2
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	2.2
	6/15/2011	ND(<130)	ND(<250)	3.0
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	6/13/2012	NA	NA	1.1
	Well covered during construction activities			

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-6	8/2/2007	ND(<130)	ND(<250)	4
	12/6/2007	ND(<130)	ND(<250)	**6**
	3/12/2008	ND(<130)	ND(<250)	**5**
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008 (dup.)	NA	NA	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	**12**
	3/4/2009	ND(<130)	ND(<250)	**6**
	6/4/2009	ND(<130)	ND(<250)	**7**
	9/2/2009	ND(<130)	ND(<250)	**17**
	11/18/2009	ND(<130)	ND(<250)	**8.8**
	11/18/2009 (dup.)	ND(<130)	ND(<250)	**8.8**
	3/18/2010	ND(<130)	ND(<250)	**6**
	6/23/2010	ND(<130)	ND(<250)	**7.1**
	9/9/2010	ND(<130)	ND(<250)	**15**
	12/2/2010	ND(<130)	ND(<250)	**6.5**
	3/23/2011	ND(<130)	ND(<250)	**8**
	6/15/2011	ND(<130)	ND(<250)	**8.8**
	6/15/2011 (dup.)	NA	NA	**8.9**
	9/21/2011	ND(<130)	ND(<250)	**15**
	12/6/2011	ND(<130)	ND(<250)	**6.8**
	6/13/2012	NA	NA	**8.1**
	11/16/2012	NA	NA	4.5
	11/16/2012 (dup.)	NA	NA	4.4
	9/17/2014	NA	NA	**7.2**
	9/28/2015	NA	NA	**6.6**
	9/7/2016	NA	NA	**14**
	9/20/2017	NA	NA	**12**
	9/21/2018	NA	NA	**11**
	8/6/2019	NA	NA	**8.9**
	9/14/2020	NA	NA	**5.9**
	11/18/2020	ND(<130)	480	1.8
	9/20/2022	330	430	**47**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-7	6/23/2010	ND(<130)	ND(<250)	**6.6**
	9/9/2010	ND(<130)	ND(<250)	**5.3**
	9/9/2010 (dup.)	ND(<130)	ND(<250)	4.9
	12/2/2010	ND(<130)	ND(<250)	**7.6**
	3/23/2011	ND(<130)	ND(<250)	**7.1**
	3/23/2011 (dup.)	ND(<130)	ND(<250)	**6.8**
	6/15/2011	ND(<130)	ND(<250)	**7.6**
	9/21/2011	ND(<130)	ND(<250)	**8.7**
	12/6/2011	ND(<130)	ND(<250)	**8.5**
	6/13/2012	NA	NA	**9.7**
	11/15/2012	NA	NA	**12**
	9/17/2014	NA	NA	**9.1**
	9/17/2014 (dup.)	NA	NA	**8.5**
	9/28/2015	NA	NA	**7.9**
	9/7/2016	NA	NA	**5.5**
	9/20/2017	NA	NA	**24**
	9/20/2018	NA	NA	**10**
	8/6/2019	NA	NA	**7.1**
	8/6/2019 (dup. WES-Dup-1)	NA	NA	**9**
	9/15/2020	NA	NA	**11**
	11/18/2020	ND(<130)	**630**	3.6
	9/21/2022	310	ND(<250)	2.9
MW-8	6/23/2010	240	ND(<250)	2.7
	9/9/2010	250	ND(<250)	2.5
	12/2/2010	170	ND(<250)	2.5
	12/2/2010 (dup.)	ND(<130)	ND(<250)	2.5
	3/23/2011	ND(<130)	ND(<250)	2.7
	6/15/2011	170	ND(<250)	3.3
	9/21/2011	ND(<130)	ND(<250)	2
	12/6/2011	140	ND(<250)	ND(<1.8)
	6/13/2012	150	ND(<250)	1.9
	11/15/2012	NA	NA	1.4
	9/17/2014	NA	NA	1.9
	9/28/2015	NA	NA	2.1

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-8 (cont.)	9/8/2016	NA	NA	ND(<2.0)
	9/19/2017	NA	NA	1.6
	9/20/2018	NA	NA	2
	8/6/2019	NA	NA	1.1
	9/15/2020	NA	NA	ND(<1.0)
	11/18/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/21/2022	**590**	400	ND(<1.0)
MW-9	6/23/2010	480	ND(<250)	3.8
	6/23/2010 (dup.)	530	ND(<250)	3.7
	9/9/2010	370	ND(<250)	2.8
	12/2/2010	320	ND(<250)	3
	3/23/2011	150	ND(<250)	**5.5**
	6/15/2011	210	ND(<250)	**6.2**
	6/15/2011 (dup.)	170	ND(<250)	**5.9**
	9/21/2011	180	ND(<250)	3
	12/6/2011	270	ND(<250)	3.8
	6/13/2012	260	ND(<250)	4.6
	11/15/2012	NA	NA	2.9
	9/17/2014	NA	NA	2.1
	9/28/2015	NA	NA	2.4
	9/8/2016	NA	NA	2.8
	9/20/2017	NA	NA	3
	9/21/2018	NA	NA	2.8
	8/6/2019	NA	NA	ND (<1.0)
	9/15/2020	NA	NA	1.9
	11/18/2020	ND(<130)	**3,000**	2.3
	9/20/2022	**1,700**	**1,100**	2.8
MW-10	6/15/2011	ND(<130)	ND(<250)	2.1
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011 (dup.)	ND(<130)	ND(<250)	ND(<1.8)
	6/13/2012	ND(<130)	ND(<250)	1.5
	11/16/2012	NA	NA	2.5
	9/17/2014	NA	NA	**8.9**
	9/28/2015	NA	NA	**11**
	9/28/2015 (dup.)	NA	NA	**11**
	9/8/2016	NA	NA	**5.8**
	9/16/2017	NA	NA	**8.1**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-10 (cont.)	9/21/2018	NA	NA	**19**
	8/6/2019	NA	NA	**10**
	9/15/2020	NA	NA	**16**
	11/19/2020	280	ND(<250)	**17**
	9/20/2022	ND(<130)	ND(<250)	**7.4**
MW-11	6/15/2011	ND(<130)	ND(<250)	4.3
	9/21/2011	ND(<130)	ND(<250)	**7.5**
	12/6/2011	ND(<130)	ND(<250)	**5.2**
	6/13/2012	ND(<130)	ND(<250)	**6.2**
	11/16/2012	NA	NA	**7.9**
	9/17/2014	NA	NA	2.9
	9/28/2015	NA	NA	**7.9**
	9/8/2016	NA	NA	**6.5**
	9/20/2017	NA	NA	**6.7**
	9/20/2018	NA	NA	**11**
	8/6/2019	NA	NA	**5.1**
	9/15/2020	NA	NA	3.4
	11/19/2020	150	ND(<250)	**6.9**
	9/20/2022	130	ND(<250)	2.8
MW-12	6/15/2011	ND(<130)	ND(<250)	3.4
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	9/21/2011 (dup.)	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	1.8
	6/13/2012	ND(<130)	ND(<250)	1.8
	11/16/2012	NA	NA	1.5
	9/17/2014	NA	NA	3.9
	9/28/2015	NA	NA	2
	9/8/2016	NA	NA	**13**
	9/19/2017	NA	NA	3.4
	9/21/2018	NA	NA	**6.4**
	8/6/2019	NA	NA	**7.4**
	9/15/2020	NA	NA	**16**
	11/19/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022	ND(<130)	ND(<250)	**17**
MW-13	11/18/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022	ND(<130)	ND(<250)	ND(<1.0)

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range µg/L	NWTPH-Dx Lube-Oil Range µg/L	EPA-200.8 Arsenic µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-14	11/18/2020	ND(<130)	380	1.8
	9/20/2022	150	ND(<250)	3.8
Equipment Blank	8/2/2007 (MW-8)	NA	NA	ND(<4.0)
	12/6/2007 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	3/12/2008 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	6/16/2008 (MW-8)	NA	NA	ND(<4.0)
	9/15/2008 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	3/4/2009 (MW-8)	NA	NA	ND(<5.0)
	6/4/2009 (MW-8)	ND(<130)	ND(<250)	ND(<5.0)
	9/2/2009 (MW-8)	ND(<130)	ND(<250)	ND(<1.0)
	11/18/2009 (MW-8)	ND(<130)	ND(<250)	ND(<1.0)
	3/18/2010 (MW-8)	ND(<130)	ND(<250)	ND(<1.8)
	6/24/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	9/8/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	12/1/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	3/22/2011 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	6/16/2011 (MW-15)	ND(<130)	ND(<250)	ND(<1.8)
	9/22/2011 (MW-14)	ND(<130)	ND(<250)	ND(<1.8)
	12/7/2011 (MW-14)	ND(<130)	ND(<250)	ND(<1.8)
	6/14/2012 (MW-14)	ND(<130)	ND(<250)	ND(<1.0)
	11/15/2012 (MW-14)	NA	NA	ND(<1.0)
	9/17/2014 (MW-14)	NA	NA	ND(<1.0)
	9/28/2014 (MW-14)	NA	NA	ND(<1.0)
	9/8/2016 (MW-14)	NA	NA	ND(<2.0)
	9/20/2017 (MW-14)	NA	NA	ND(<1.0)
	9/20/2018 (WES-FEB-1)	NA	NA	ND(<1.0)
	8/6/2019 (WES-FEB-1)	NA	NA	ND(<1.0)
	9/15/2020 (WES-FEB-1)	NA	NA	ND(<1.0)
	11/18/2020 (WES-FEB-1)	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022 (WES-FEB-1)	ND(<130)	ND(<250)	ND(<1.0)

BOLD and shaded - indicates that the result exceeded the MTCA Method A or Method B target cleanup level

ND - indicates analyte was Not Detected at level above reporting limit (shown in parentheses)

NA - indicates sample was Not Analyzed for the specified analyte.

APPENDIX A

Groundwater Laboratory Analytical Data

September 30, 2022

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On September 22nd, 14 samples were received by our laboratory and assigned our laboratory project number EV22090096. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 10:30:00 AM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**220**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**6.4**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**71.0**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 11:35:00 AM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**370**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**10**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**75.4**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 10:35:00 AM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**1300**	130	1	UG/L	09/28/2022	DHM
TPH-Oil Range	NWTPH-DX	**850**	250	1	UG/L	09/28/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**1.0**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**82.9**	09/28/2022	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product. Oil range product results biased high due to diesel range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 12:45:00 PM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**330**	130	1	UG/L	09/28/2022	DHM
TPH-Oil Range	NWTPH-DX	**430**	250	1	UG/L	09/28/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**47**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**72.0**	09/28/2022	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product. Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/21/2022 9:40:00 AM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**310**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**2.9**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**75.8**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/21/2022 10:40:00 AM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**590**	130	1	UG/L	09/28/2022	DHM
TPH-Oil Range	NWTPH-DX	**400**	250	1	UG/L	09/28/2022	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**65.6**	09/28/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.
Oil range product results biased high due to diesel range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 11:30:00 AM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**1700**	130	1	UG/L	09/28/2022	DHM
TPH-Oil Range	NWTPH-DX	**1100**	250	1	UG/L	09/28/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**2.8**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**82.4**	09/28/2022	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product. Oil range product results biased high due to diesel range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 1:40:00 PM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**7.4**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**69.2**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 2:30:00 PM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**130**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**2.8**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**69.9**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2022
		ALS JOB#:	EV22090096
		ALS SAMPLE#:	EV22090096-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 2:40:00 PM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**17**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**86.0**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 8:00:00 AM
CLIENT SAMPLE ID	WES-DUP-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**990**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	**520**	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**1.1**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**79.6**	09/26/2022	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product. Oil range product results biased high due to diesel range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 4:00:00 PM
CLIENT SAMPLE ID	MW-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**75.0**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2022 EV22090096 EV22090096-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 12:20:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**79.5**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2022
		ALS JOB#:	EV22090096
		ALS SAMPLE#:	EV22090096-14
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/22/2022
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/20/2022 1:20:00 PM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**150**	130	1	UG/L	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/26/2022	DHM
Arsenic (Dissolved)	EPA-200.8	**3.8**	1.0	1	UG/L	09/29/2022	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**80.3**	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2022
		ALS SDG#:	EV22090096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-092322W - Batch 184011 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	UG/L	250	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB2-092322W - Batch 184012 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	09/26/2022	DHM
TPH-Oil Range	NWTPH-DX	U	UG/L	250	09/26/2022	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092822W - Batch 184137 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	09/29/2022	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/30/2022
		ALS SDG#:	EV22090096
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 184011 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**99.5**			67	125.2	09/26/2022	DHM
TPH-Diesel Range - BSD	NWTPH-DX	**106**	**6**		67	125.2	09/26/2022	DHM

ALS Test Batch ID: 184012 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**87.8**			67	125.2	09/26/2022	DHM
TPH-Diesel Range - BSD	NWTPH-DX	**86.2**	**2**		67	125.2	09/26/2022	DHM

ALS Test Batch ID: 184137 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**101**			89.1	110	09/29/2022	RAL
Arsenic (Dissolved) - BSD	EPA-200.8	**103**	**1**		89.1	110	09/29/2022	RAL

APPROVED BY

Laboratory Director

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ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2209096

Date 9/21/22 Page 1 Of 2

PROJECT ID: COB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 225 E. Champion St. #101
Bellingham, WA 98225
PHONE: 360-752-6571 P.O. #:
E-MAIL: hcashman@whatcom-es.com
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☐	Pri Pol ☐	TAL ☐	Metals Other (Specify) As	TCLP-Metals ☐	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	9/20/22	10:30	water	1		X																		X						2	
2. MW-2		11:35		2																											
3. MW-3		10:35		3																											
4. MW-6		12:45		4																											
5. MW-7	9/21/22	9:40		5																											
6. MW-8	9/21/22	10:40		6																											
7. MW-9	9/20/22	11:30		7																											
8. MW-10		13:40		8																											
9. MW-11		14:30		9																											
10. MW-12		14:40		10																											

OTHER (Specify)

SPECIAL INSTRUCTIONS: metals samples were filtered in the field.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Matt Roberts, WES, 9/21/22
   Received By:
2. Relinquished By:
   Received By: Shawn Robinson ALS 9/22/22 1025

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)
EV2209096

Date 9/21/22 Page 2 Of 2

PROJECT ID: COB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E. Champion St. #101
Bellingham, WA 98225
PHONE: 360-752-9571 P.O. #:
E-MAIL: hcashman@whatcom-es.com
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐	BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐	MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐	Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐	RCRA-8 ☐	Pri Pol ☐	TAL ☐	Metals Other (Specify)	TCLP-Metals ☐	VOA ☐	Semi-Vol ☐	Pest ☐	Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. WES-DUP-1	9/20/22	8:00	Water	11		X																		X						2	
2. MW-FEB-1	"	16:00	"	12		"																		"						"	
3. MW-13	"	1220	"	13		"																		"						"	
4. MW-14	"	1320	"	14		"																		"						2	
5.																															
6.																															
7.																															
8.																															
9.																															
10.																															

OTHER (Specify)

SPECIAL INSTRUCTIONS metals samples were filtered in the field

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Matt Roberts/MR, WES, 9/21/22
   Received By:
2. Relinquished By:
   Received By: Shawn Robin ALS 9/22/22 1005

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
[X] 10 Standard [ ] 5 [ ] 3 [ ] 2 [ ] 1 [ ] SAME DAY

Fuels & Hydrocarbon Analysis
[X] 5 Standard [ ] 3 [ ] 1 [ ] SAME DAY

OTHER:
Specify:

*Turnaround request less than standard may incur Rush Charges

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October 25, 2023

Ms. Shayla Francis
City of Bellingham
200 McKenzie Avenue
Bellingham, WA 98225

RE: 2023 Groundwater Monitoring Data Summary– 210 McKenzie Avenue, Bellingham, Washington

Ms. Francis:

The groundwater monitoring well network at 210 McKenzie Avenue in Bellingham, Washington was sampled in September 2023. The monitoring well system consists of fourteen wells identified as MW-1 through MW-14. Monitoring wells MW-4 and MW-5 have been inaccessible since 2012 when construction activities covered the wells and well MW-3 was inaccessible at the time of sampling in September and was sampled in October 2023.

Groundwater Sampling Collection

The monitoring wells were sampled using a low-flow sampling technique which minimizes the impact of the purging process on groundwater chemistry and provides an accurate representation of the groundwater's condition at the time of sampling. Prior to sampling, the depth-to-water was measured in each well, and the groundwater elevation was calculated for the sampling event. A YSI multi meter probe was used in conjunction with a flow-through cell to monitor groundwater chemistry during the low-flow purging process. Purging was considered adequate and groundwater samples were collected once water chemistry parameters had stabilized.

Groundwater samples were collected in laboratory provided sample jars and stored in a cooler, on ice immediately after collection. One duplicate sample and one equipment blank sample were also collected during the sampling event. Standard industry protocols regarding sample collection, preservation, chain-of-custody, and

shipping were followed. Groundwater samples were identified by the monitoring well identification number from which the sample was collected. All groundwater samples were analyzed at ALS Laboratory Group in Everett, Washington. Strict chain-of-custody and QA/QC protocols were followed for each sample. The groundwater samples were analyzed for diesel/oil range total petroleum hydrocarbons (TPH) via method NWTPH-Dx and for dissolved arsenic via method EPA-200.8.

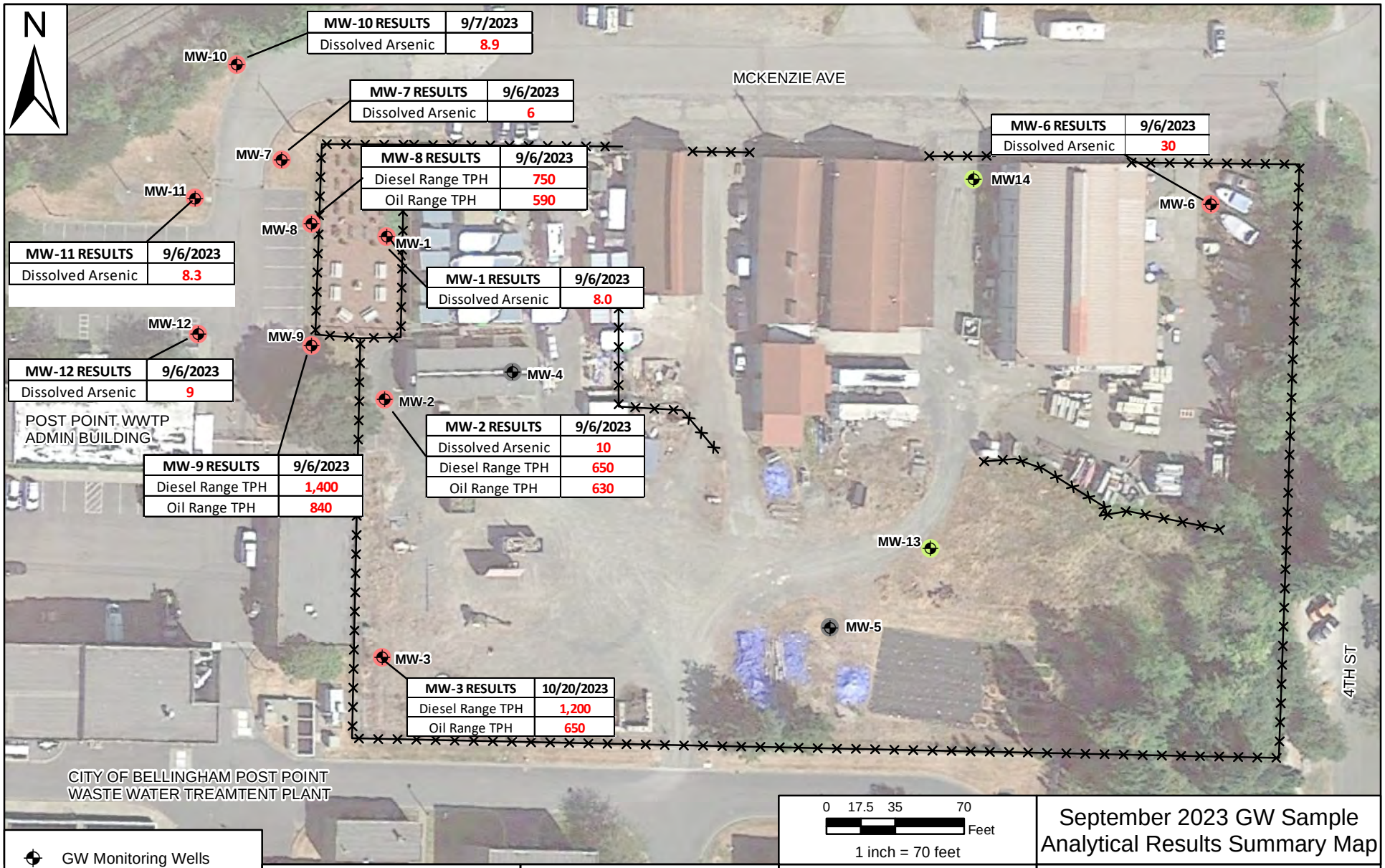
Groundwater Sample Results

The groundwater monitoring well locations and analytical data are shown on Figure 1. The groundwater flow direction and gradient for the September sampling event are shown on Figure 2. The groundwater laboratory analytical data are summarized in Table 1. The original laboratory analytical data reports are provided in Appendix A.

Monitoring wells MW-2, MW-3, MW-8, and MW-9 contained diesel and/or oil range TPH at concentrations which exceeded the MTCA Method A cleanup level. Monitoring wells MW-1, MW-2, MW-6, MW-7, MW-10, MW-11, and MW-12 contained dissolved arsenic at concentrations which exceeded the MTCA Method A cleanup level.

Sincerely,

Matt Roberts
Whatcom Environmental Services



All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

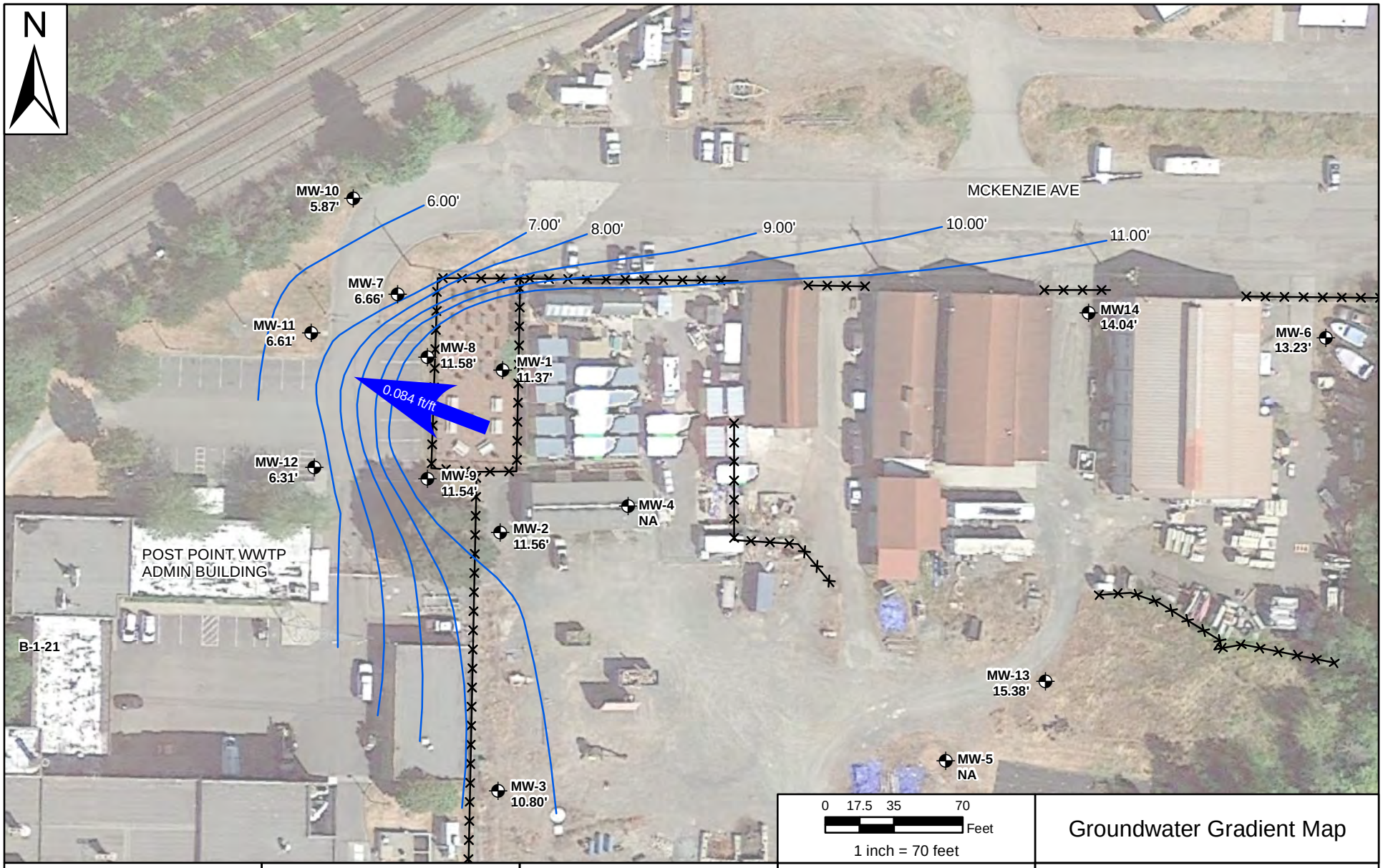
September 2023 GW Sample Analytical Results Summary Map

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie

10/24/2023

Figure 1



Groundwater Gradient Map

GW Monitoring Well
GW Contours (9/6/2023)
Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

210 McKenzie Avenue
Bellingham, WA 98225

210 McKenzie

10/24/2023

Figure 2

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-1	8/2/2007	ND(<130)	ND(<250)	**7**
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007 (dup.)	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008 (dup.)	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	1.1
	9/2/2009 (dup.)	ND(<130)	ND(<250)	1.7
	11/18/2009	ND(<130)	ND(<250)	ND(<1)
	3/18/2010	ND(<130)	ND(<250)	1.9
	6/23/2010	180	ND(<250)	3.6
	9/9/2010	ND(<130)	ND(<250)	**6.3**
	12/2/2010	ND(<130)	ND(<250)	3.5
	3/23/2011	ND(<130)	ND(<250)	**5.4**
	6/15/2011	ND(<130)	ND(<250)	**6.5**
	9/21/2011	ND(<130)	ND(<250)	**11**
	12/6/2011	ND(<130)	ND(<250)	**7.3**
	6/14/2012	NA	NA	**7.3**
	11/15/2012	NA	NA	**6.9**
	9/17/2014	NA	NA	**6**
	9/28/2015	NA	NA	**6**
	9/7/2016	NA	NA	**10**
	9/19/2017	NA	NA	4.8
	9/20/2018	NA	NA	**12**
	8/6/2019	NA	NA	**6.3**
	9/14/2020	NA	NA	**6.6**
	11/18/2020	ND(<130)	490	3.7
	9/20/2022	220	ND(<250)	**6.4**
	9/6/2023	180	ND(<250)	**8**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-2	8/2/2007	ND(<130)	ND(<250)	**11**
	8/2/2007 (dup.)	ND(<130)	ND(<250)	NA
	12/6/2007	ND(<130)	ND(<250)	**12**
	3/12/2008	ND(<130)	ND(<250)	**15**
	6/16/2008	ND(<130)	ND(<250)	**6**
	9/15/2008	ND(<130)	ND(<250)	**20**
	3/4/2009	ND(<130)	ND(<250)	**8**
	3/4/2009 (dup.)	ND(<130)	ND(<250)	**8**
	6/4/2009	ND(<130)	ND(<250)	**15**
	9/2/2009	ND(<130)	ND(<250)	**18**
	11/18/2009	ND(<130)	ND(<250)	**17**
	3/18/2010	140	ND(<250)	**7.5**
	3/18/2010 (dup.)	150	ND(<250)	**9.1**
	6/23/2010	170	ND(<250)	**10**
	9/9/2010	ND(<130)	ND(<250)	**22**
	12/2/2010	ND(<130)	ND(<250)	**6.5**
	3/23/2011	ND(<130)	ND(<250)	**7.8**
	6/15/2011	ND(<130)	ND(<250)	**10**
	9/21/2011	210	ND(<250)	**15**
	12/6/2011	200	ND(<250)	4
	6/14/2012	ND(<130)	ND(<250)	**10**
	11/15/2012	NA	NA	**14**
	9/17/2014	NA	NA	**5.6**
	9/28/2015	NA	NA	4.7
	9/7/2016	NA	NA	**10**
	9/19/2017	NA	NA	2.2
	9/20/2018	NA	NA	**11**
	8/6/2019	NA	NA	**13**
	9/14/2020	NA	NA	**9.1**
	11/18/2020	ND(<130)	**650**	**8.9**
	9/20/2022	370	ND(<250)	**10**
	9/6/2023	**650**	**630**	**7.5**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-3	8/2/2007	150	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	3/12/2008 (dup.)	ND(<130)	ND(<250)	NA
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	180	ND(<250)	ND(<5)
	6/4/2009	150	ND(<250)	ND(<5)
	6/4/2009 (dup.)	160	ND(<250)	ND(<5)
	9/2/2009	170	ND(<250)	1.7
	11/18/2009	250	ND(<250)	2.3
	3/18/2010	190	ND(<250)	ND(<1.8)
	6/23/2010	210	ND(<250)	2.3
	9/9/2010	370	ND(<250)	**5.7**
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	3.6
	6/15/2011	ND(<130)	ND(<250)	3.9
	9/21/2011	150	ND(<250)	**8.4**
	12/6/2011	360	ND(<250)	2.3
	6/14/2012	190	ND(<250)	2.6
	6/14/2012 (dup.)	130	ND(<250)	2.8
	11/15/2012	NA	NA	3.0
	9/17/2014	NA	NA	3.0
	9/28/2015	NA	NA	2.9
	9/7/2016	NA	NA	**7.1**
	9/7/2016 (dup.)	NA	NA	**6.9**
	9/19/2017	NA	NA	2.1
	9/20/2018	NA	NA	2.1
	8/6/2019	NA	NA	3.4
	9/14/2020	NA	NA	1.2
	9/14/2020 (dup. WES-dup-1)	NA	NA	1.0
	11/18/2020	**760**	420	1.0
	11/18/2020 (dup. MW-Dup-1)	**810**	360	1.1
	9/20/2022	**1,300**	**850**	1.0
	9/20/2022 (dup. MW-Dup-1)	**990**	**520**	1.1
	10/20/2023	**1,200**	**650**	2.7

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-4	8/2/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	ND(<1)
	11/18/2009	ND(<130)	ND(<250)	ND(<1)
	3/18/2010	ND(<130)	ND(<250)	ND(<1.8)
	6/23/2010	ND(<130)	ND(<250)	ND(<1.8)
	9/9/2010	ND(<130)	ND(<250)	ND(<1.8)
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	2.5
	6/15/2011	ND(<130)	ND(<250)	1.9
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	6/14/2012	NA	NA	ND(<1)
	Well covered during construction activities			
MW-5	8/2/2007	ND(<130)	ND(<250)	ND(<4)
	12/6/2007	ND(<130)	ND(<250)	ND(<4)
	3/12/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	ND(<4)
	3/4/2009	ND(<130)	ND(<250)	ND(<5)
	6/4/2009	ND(<130)	ND(<250)	ND(<5)
	9/2/2009	ND(<130)	ND(<250)	1.3
	11/18/2009	ND(<130)	ND(<250)	1.5
	3/18/2010	ND(<130)	ND(<250)	ND(<1.8)
	6/23/2010	160	ND(<250)	ND(<1.8)
	9/9/2010	ND(<130)	ND(<250)	2.2
	12/2/2010	ND(<130)	ND(<250)	ND(<1.8)
	3/23/2011	ND(<130)	ND(<250)	2.2
	6/15/2011	ND(<130)	ND(<250)	3.0
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	6/13/2012	NA	NA	1.1
	Well covered during construction activities			

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-6	8/2/2007	ND(<130)	ND(<250)	4
	12/6/2007	ND(<130)	ND(<250)	**6**
	3/12/2008	ND(<130)	ND(<250)	**5**
	6/16/2008	ND(<130)	ND(<250)	ND(<4)
	6/16/2008 (dup.)	NA	NA	ND(<4)
	9/15/2008	ND(<130)	ND(<250)	**12**
	3/4/2009	ND(<130)	ND(<250)	**6**
	6/4/2009	ND(<130)	ND(<250)	**7**
	9/2/2009	ND(<130)	ND(<250)	**17**
	11/18/2009	ND(<130)	ND(<250)	**8.8**
	11/18/2009 (dup.)	ND(<130)	ND(<250)	**8.8**
	3/18/2010	ND(<130)	ND(<250)	**6**
	6/23/2010	ND(<130)	ND(<250)	**7.1**
	9/9/2010	ND(<130)	ND(<250)	**15**
	12/2/2010	ND(<130)	ND(<250)	**6.5**
	3/23/2011	ND(<130)	ND(<250)	**8**
	6/15/2011	ND(<130)	ND(<250)	**8.8**
	6/15/2011 (dup.)	NA	NA	**8.9**
	9/21/2011	ND(<130)	ND(<250)	**15**
	12/6/2011	ND(<130)	ND(<250)	**6.8**
	6/13/2012	NA	NA	**8.1**
	11/16/2012	NA	NA	4.5
	11/16/2012 (dup.)	NA	NA	4.4
	9/17/2014	NA	NA	**7.2**
	9/28/2015	NA	NA	**6.6**
	9/7/2016	NA	NA	**14**
	9/20/2017	NA	NA	**12**
	9/21/2018	NA	NA	**11**
	8/6/2019	NA	NA	**8.9**
	9/14/2020	NA	NA	**5.9**
	11/18/2020	ND(<130)	480	1.8
	9/20/2022	330	430	**47**
	9/6/2023	270	400	**30**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-7	6/23/2010	ND(<130)	ND(<250)	**6.6**
	9/9/2010	ND(<130)	ND(<250)	**5.3**
	9/9/2010 (dup.)	ND(<130)	ND(<250)	4.9
	12/2/2010	ND(<130)	ND(<250)	**7.6**
	3/23/2011	ND(<130)	ND(<250)	**7.1**
	3/23/2011 (dup.)	ND(<130)	ND(<250)	**6.8**
	6/15/2011	ND(<130)	ND(<250)	**7.6**
	9/21/2011	ND(<130)	ND(<250)	**8.7**
	12/6/2011	ND(<130)	ND(<250)	**8.5**
	6/13/2012	NA	NA	**9.7**
	11/15/2012	NA	NA	**12**
	9/17/2014	NA	NA	**9.1**
	9/17/2014 (dup.)	NA	NA	**8.5**
	9/28/2015	NA	NA	**7.9**
	9/7/2016	NA	NA	**5.5**
	9/20/2017	NA	NA	**24**
	9/20/2018	NA	NA	**10**
	8/6/2019	NA	NA	**7.1**
	8/6/2019 (dup. WES-Dup-1)	NA	NA	**9**
	9/15/2020	NA	NA	**11**
	11/18/2020	ND(<130)	**630**	3.6
	9/21/2022	310	ND(<250)	2.9
	9/6/2023	450	460	**5.9**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-8	6/23/2010	240	ND(<250)	2.7
	9/9/2010	250	ND(<250)	2.5
	12/2/2010	170	ND(<250)	2.5
	12/2/2010 (dup.)	ND(<130)	ND(<250)	2.5
	3/23/2011	ND(<130)	ND(<250)	2.7
	6/15/2011	170	ND(<250)	3.3
	9/21/2011	ND(<130)	ND(<250)	2
	12/6/2011	140	ND(<250)	ND(<1.8)
	6/13/2012	150	ND(<250)	1.9
	11/15/2012	NA	NA	1.4
	9/17/2014	NA	NA	1.9
	9/28/2015	NA	NA	2.1
	9/8/2016	NA	NA	ND(<2.0)
	9/19/2017	NA	NA	1.6
	9/20/2018	NA	NA	2
	8/6/2019	NA	NA	1.1
	9/15/2020	NA	NA	ND(<1.0)
	11/18/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/21/2022	**590**	400	ND(<1.0)
	9/6/2023	**750**	**590**	ND(<1.0)

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-9	6/23/2010	480	ND(<250)	3.8
	6/23/2010 (dup.)	530	ND(<250)	3.7
	9/9/2010	370	ND(<250)	2.8
	12/2/2010	320	ND(<250)	3
	3/23/2011	150	ND(<250)	**5.5**
	6/15/2011	210	ND(<250)	**6.2**
	6/15/2011 (dup.)	170	ND(<250)	**5.9**
	9/21/2011	180	ND(<250)	3
	12/6/2011	270	ND(<250)	3.8
	6/13/2012	260	ND(<250)	4.6
	11/15/2012	NA	NA	2.9
	9/17/2014	NA	NA	2.1
	9/28/2015	NA	NA	2.4
	9/8/2016	NA	NA	2.8
	9/20/2017	NA	NA	3
	9/21/2018	NA	NA	2.8
	8/6/2019	NA	NA	ND (<1.0)
	9/15/2020	NA	NA	1.9
	11/18/2020	ND(<130)	**3,000**	2.3
	9/20/2022	**1,700**	**1,100**	2.8
	9/6/2023	**1,400**	**840**	1.1
	9/6/2023 (WES-DUP-1)	**1,200**	**700**	5

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-10	6/15/2011	ND(<130)	ND(<250)	2.1
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011 (dup.)	ND(<130)	ND(<250)	ND(<1.8)
	6/13/2012	ND(<130)	ND(<250)	1.5
	11/16/2012	NA	NA	2.5
	9/17/2014	NA	NA	**8.9**
	9/28/2015	NA	NA	**11**
	9/28/2015 (dup.)	NA	NA	**11**
	9/8/2016	NA	NA	**5.8**
	9/16/2017	NA	NA	**8.1**
	9/21/2018	NA	NA	**19**
	8/6/2019	NA	NA	**10**
	9/15/2020	NA	NA	**16**
	11/19/2020	280	ND(<250)	**17**
	9/20/2022	ND(<130)	ND(<250)	**7.4**
	9/7/2023	ND(<130)	ND(<250)	**8.9**
MW-11	6/15/2011	ND(<130)	ND(<250)	4.3
	9/21/2011	ND(<130)	ND(<250)	**7.5**
	12/6/2011	ND(<130)	ND(<250)	**5.2**
	6/13/2012	ND(<130)	ND(<250)	**6.2**
	11/16/2012	NA	NA	**7.9**
	9/17/2014	NA	NA	2.9
	9/28/2015	NA	NA	**7.9**
	9/8/2016	NA	NA	**6.5**
	9/20/2017	NA	NA	**6.7**
	9/20/2018	NA	NA	**11**
	8/6/2019	NA	NA	**5.1**
	9/15/2020	NA	NA	3.4
	11/19/2020	150	ND(<250)	**6.9**
	9/20/2022	130	ND(<250)	2.8
	9/6/2023	180	ND(<250)	**8.3**

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
MW-12	6/15/2011	ND(<130)	ND(<250)	3.4
	9/21/2011	ND(<130)	ND(<250)	ND(<1.8)
	9/21/2011 (dup.)	ND(<130)	ND(<250)	ND(<1.8)
	12/6/2011	ND(<130)	ND(<250)	1.8
	6/13/2012	ND(<130)	ND(<250)	1.8
	11/16/2012	NA	NA	1.5
	9/17/2014	NA	NA	3.9
	9/28/2015	NA	NA	2
	9/8/2016	NA	NA	**13**
	9/19/2017	NA	NA	3.4
	9/21/2018	NA	NA	**6.4**
	8/6/2019	NA	NA	**7.4**
	9/15/2020	NA	NA	**16**
	11/19/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022	ND(<130)	ND(<250)	**17**
	9/6/2023	240	ND(<250)	**8.7**
MW-13	11/18/2020	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022	ND(<130)	ND(<250)	ND(<1.0)
	9/6/2023	130	ND(<250)	ND(<1.0)
MW-14	11/18/2020	ND(<130)	380	1.8
	9/20/2022	150	ND(<250)	3.8
	9/6/2023	140	ND(<250)	ND(<1.0)

Table 1. Groundwater Sample Analytical Results - 210 McKenzie Ave

Sample ID	Date	NWTPH-Dx Diesel Range	NWTPH-Dx Lube-Oil Range	EPA-200.8 Arsenic
		µg/L	µg/L	µg/L
	MTCA Method A Cleanup Level:	500	500	5
Equipment Blank	8/2/2007 (MW-8)	NA	NA	ND(<4.0)
	12/6/2007 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	3/12/2008 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	6/16/2008 (MW-8)	NA	NA	ND(<4.0)
	9/15/2008 (MW-8)	ND(<130)	ND(<250)	ND(<4.0)
	3/4/2009 (MW-8)	NA	NA	ND(<5.0)
	6/4/2009 (MW-8)	ND(<130)	ND(<250)	ND(<5.0)
	9/2/2009 (MW-8)	ND(<130)	ND(<250)	ND(<1.0)
	11/18/2009 (MW-8)	ND(<130)	ND(<250)	ND(<1.0)
	3/18/2010 (MW-8)	ND(<130)	ND(<250)	ND(<1.8)
	6/24/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	9/8/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	12/1/2010 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	3/22/2011 (MW-11)	ND(<130)	ND(<250)	ND(<1.8)
	6/16/2011 (MW-15)	ND(<130)	ND(<250)	ND(<1.8)
	9/22/2011 (MW-14)	ND(<130)	ND(<250)	ND(<1.8)
	12/7/2011 (MW-14)	ND(<130)	ND(<250)	ND(<1.8)
	6/14/2012 (MW-14)	ND(<130)	ND(<250)	ND(<1.0)
	11/15/2012 (MW-14)	NA	NA	ND(<1.0)
	9/17/2014 (MW-14)	NA	NA	ND(<1.0)
	9/28/2014 (MW-14)	NA	NA	ND(<1.0)
	9/8/2016 (MW-14)	NA	NA	ND(<2.0)
	9/20/2017 (MW-14)	NA	NA	ND(<1.0)
	9/20/2018 (WES-FEB-1)	NA	NA	ND(<1.0)
	8/6/2019 (WES-FEB-1)	NA	NA	ND(<1.0)
	9/15/2020 (WES-FEB-1)	NA	NA	ND(<1.0)
	11/18/2020 (WES-FEB-1)	ND(<130)	ND(<250)	ND(<1.0)
	9/20/2022 (WES-FEB-1)	ND(<130)	ND(<250)	ND(<1.0)
	9/6/2023 (WES-FEB-1)	ND(<130)	ND(<250)	ND(<1.0)

BOLD and shaded - indicates that the result exceeded the MTCA Method A or Method B target cleanup level

ND - indicates analyte was Not Detected at level above reporting limit (shown in parentheses)

NA - indicates sample was Not Analyzed for the specified analyte.

APPENDIX A

Groundwater Laboratory Analytical Data

September 21, 2023

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On September 8th, 13 samples were received by our laboratory and assigned our laboratory project number EV23090041. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 1:25:00 PM
CLIENT SAMPLE ID	MW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**180**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**8.0**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**89.7**	09/12/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-02
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 2:00:00 PM
CLIENT SAMPLE ID	MW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**650**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	**630**	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**7.5**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**96.9**	09/12/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and light oil.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-03
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 10:35:00 AM
CLIENT SAMPLE ID	MW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**270**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	**400**	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**30**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**84.6**	09/12/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and light oil.
Diesel range product results biased high due to oil range product overlap.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-04
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 12:25:00 PM
CLIENT SAMPLE ID	MW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**450**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	**460**	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**5.9**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**101**	09/12/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and light oil.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-05
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 11:25:00 AM
CLIENT SAMPLE ID	MW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**750**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	**590**	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**87.4**	09/12/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and light oil.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-06
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 10:30:00 AM
CLIENT SAMPLE ID	MW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**1400**	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	**840**	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**5.1**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**86.4**	09/12/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and light oil.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-07
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/7/2023 11:35:00 AM
CLIENT SAMPLE ID	MW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/12/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/12/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**8.9**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**84.6**	09/12/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-08
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 3:55:00 PM
CLIENT SAMPLE ID	MW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**180**	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**8.3**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**86.0**	09/13/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-09
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 2:45:00 PM
CLIENT SAMPLE ID	MW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**240**	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**8.7**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**87.2**	09/13/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-10
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 12:45:00 PM
CLIENT SAMPLE ID	MW-13	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**130**	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**87.9**	09/13/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-11
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 11:30:00 AM
CLIENT SAMPLE ID	MW-14	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**140**	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**83.7**	09/13/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified diesel range product.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS JOB#:	EV23090041
		ALS SAMPLE#:	EV23090041-12
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 8:00:00 AM
CLIENT SAMPLE ID	WES-DUP-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**1200**	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	**700**	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**5.0**	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**79.3**	09/13/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and lube oil.
Diesel range product results biased high due to oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	9/21/2023 EV23090041 EV23090041-13
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	09/08/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	9/6/2023 3:00:00 PM
CLIENT SAMPLE ID	WES-FEB-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	09/13/2023	DHM
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	09/13/2023	DHM
Arsenic (Dissolved)	EPA-200.8	U	1.0	1	UG/L	09/14/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**86.9**	09/13/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	9/21/2023
		ALS SDG#:	EV23090041
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-090823W - Batch 200212 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	09/08/2023	DHM
TPH-Oil Range	NWTPH-DX	U	UG/L	250	09/08/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091223W2 - Batch 200294 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	09/14/2023	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

DATE: 9/21/2023
ALS SDG#: EV23090041
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 200212 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**95.9**			67	125.2	09/08/2023	DHM
TPH-Diesel Range - BSD	NWTPH-DX	**96.0**	**0**		67	125.2	09/08/2023	DHM

ALS Test Batch ID: 200294 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**97.3**			89.1	110	09/14/2023	EBS
Arsenic (Dissolved) - BSD	EPA-200.8	**98.3**	**1**		89.1	110	09/14/2023	EBS

APPROVED BY

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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Phone (425) 356-2600
Fax (425) 356-2626
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Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2309004|

Date 9/7/23 Page 1 Of 2

PROJECT ID:	CUB: 210 McKenzie
REPORT TO COMPANY:	Whatcom Environmental Services
PROJECT MANAGER:	Harold Cashman
ADDRESS:	228 E Champion St # 101
	Bellingham, WA 98225
PHONE:	360-752-9571 P.O. #:
E-MAIL:	hjcashman@whatcom-es.com
INVOICE TO COMPANY:	same as above
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021	BTEX by EPA 8260	MTBE by EPA 8021	MTBE by EPA 8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082	Pesticides by EPA 8081	Metals-MTCA-5	RCRA-8	Pri Pol	TAL	Metals Other (Specify) As Dissolved	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-1	9/6/23	13:25	water	1		X																		X							2	
2. MW-2		14:00		2																												
3. MW-6		10:35		3																												
4. MW-7		12:25		4																												
5. MW-8		11:25		5																												
6. MW-9		10:30		6																												
7. MW-10	9/7/23	11:35		7																												
8. MW-11	9/6/23	15:55		8																												
9. MW-12		14:45		9																												
10. MW-13		12:45		10																												

SPECIAL INSTRUCTIONS Metal samples were filtered in the field

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Gigi Hewitt, WES, 9/8/23
   Received By: AFREEST, ALS, 09-08-23 @1055
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: (10) Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: (5) Standard | 3 | 1 | SAME DAY

OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV2309 00241

Date 9/7/23 Page 2 Of 2

PROJECT ID: COB: 210 Mckenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E Champion St #101
Bellingham, WA 98225
PHONE: 360-752-9571 P.O. #:
E-MAIL: hjcashman@whatcom-es.com
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021	BTEX by EPA 8260	MTBE by EPA 8021	MTBE by EPA 8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082	Pesticides by EPA 8081	Metals-MTCA-5	RCRA-8	Pri Pol	TAL	Metals Other (Specify) As	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-14	9/6/23	11:30	water	11		X																		X							2	
2. WES-DUP-1	↓	8:00	↓	12		↓																		↓							↓	
3. WES-FEB-1	↓	15:00	↓	13		↓																		↓							↓	
4.																																
5.																																
6.																																
7.																																
8.																																
9.																																
10.																																

SPECIAL INSTRUCTIONS Metal samples were filtered in the field

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Gigi Hewitt, WES, 9/8/23
Received By: APREESE, ALS, 09-08-23 @1055
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ~~10~~ Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

*Turnaround request less than standard may incur Rush Charges

October 20, 2023

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On October 6th, 1 sample was received by our laboratory and assigned our laboratory project number EV23100034. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	10/20/2023 EV23100034 EV23100034-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	10/06/2023
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	10/5/2023 3:25:00 PM
CLIENT SAMPLE ID	MW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	**1200**	130	1	UG/L	10/18/2023	DHM
TPH-Oil Range	NWTPH-DX	**650**	250	1	UG/L	10/18/2023	DHM
Arsenic (Dissolved)	EPA-200.8	**2.7**	1.0	1	UG/L	10/12/2023	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	**94.4**	10/18/2023	DHM

Chromatogram indicates that it is likely that sample contains an unidentified diesel range product and an unidentified oil range product.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	10/20/2023
		ALS SDG#:	EV23100034
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-101223W - Batch 201894 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	UG/L	130	10/12/2023	DHM
TPH-Oil Range	NWTPH-DX	U	UG/L	250	10/12/2023	DHM

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101123W - Batch 201820 - Water by EPA-200.8

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved)	EPA-200.8	U	UG/L	1.0	10/12/2023	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	10/20/2023
		ALS SDG#:	EV23100034
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 201894 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**96.2**			67	125.2	10/12/2023	DHM
TPH-Diesel Range - BSD	NWTPH-DX	**90.0**	**7**		67	125.2	10/12/2023	DHM

ALS Test Batch ID: 201820 - Water by EPA-200.8

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic (Dissolved) - BS	EPA-200.8	**98.4**			89.1	110	10/12/2023	EBS
Arsenic (Dissolved) - BSD	EPA-200.8	**99.1**	**1**		89.1	110	10/12/2023	EBS

APPROVED BY

Rob Greer
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2310034

Date 10/5/23 Page 1 Of 1

PROJECT ID: COB 210 Mckenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E. Champion St Suite 101
Bellingham, WA 98225
PHONE: 360-752-9571 P.O. #:
E-MAIL: hjcashman@whatcom-es.com
INVOICE TO COMPANY: same as above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021	BTEX by EPA 8260	MTBE by EPA 8021	MTBE by EPA 8260	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082	Pesticides by EPA 8081	Metals-MTCA-5	RCRA-8	Pri Pol	TAL	Metals Other (Specify) As (dissolved)	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-3	10/5/23	15:25	water	1		X																		X							2	
2.																																
3.																																
4.																																
5.																																
6.																																
7.																																
8.																																
9.																																
10.																																

SPECIAL INSTRUCTIONS metal sample was field filtered

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Matt Roberts/MWH, WES, 10/6 @10:55
   Received By: AFREESE, ALS, 10-06-23 @1055
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: [10] Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: [5] Standard | 3 | 1 | SAME DAY

OTHER:
Specify:

*Turnaround request less than standard may incur Rush Charges

APPENDIX D
HISTORICAL SANBORN MAPS

LIST OF HISTORICAL SANBORN MAPS

Figure D-1 1904 Sandborn Fire Insurance Map

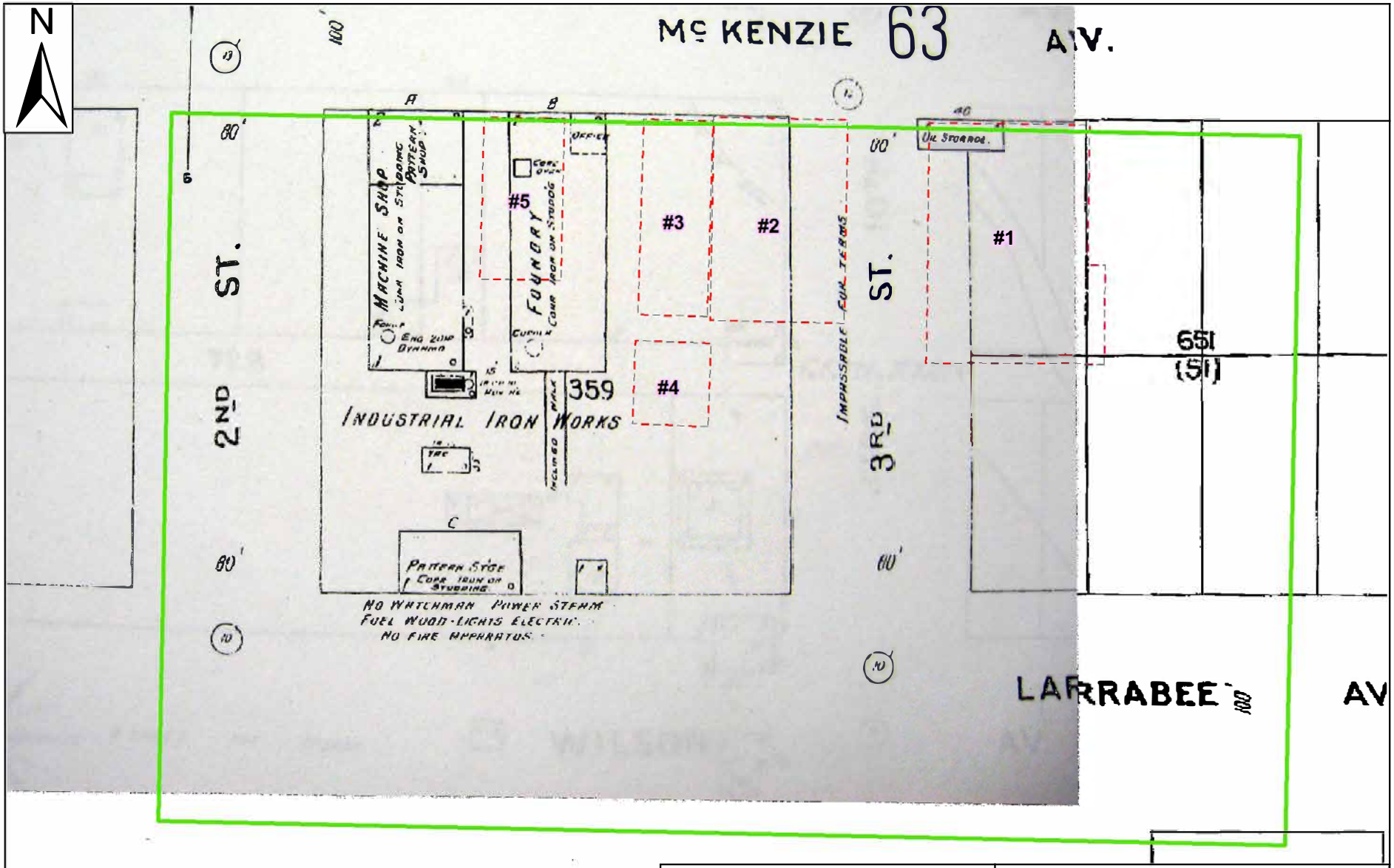
Figure D-2 1913 Sandborn Fire Insurance Map

Figure D-3 1932 Sandborn Fire Insurance Map

Figure D-4 1940 Sandborn Fire Insurance Map

Figure D-5 1950 Sandborn Fire Insurance Map

Figure D-6 1964 Sandborn Fire Insurance Map



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Subject Property

Current Building Outlines

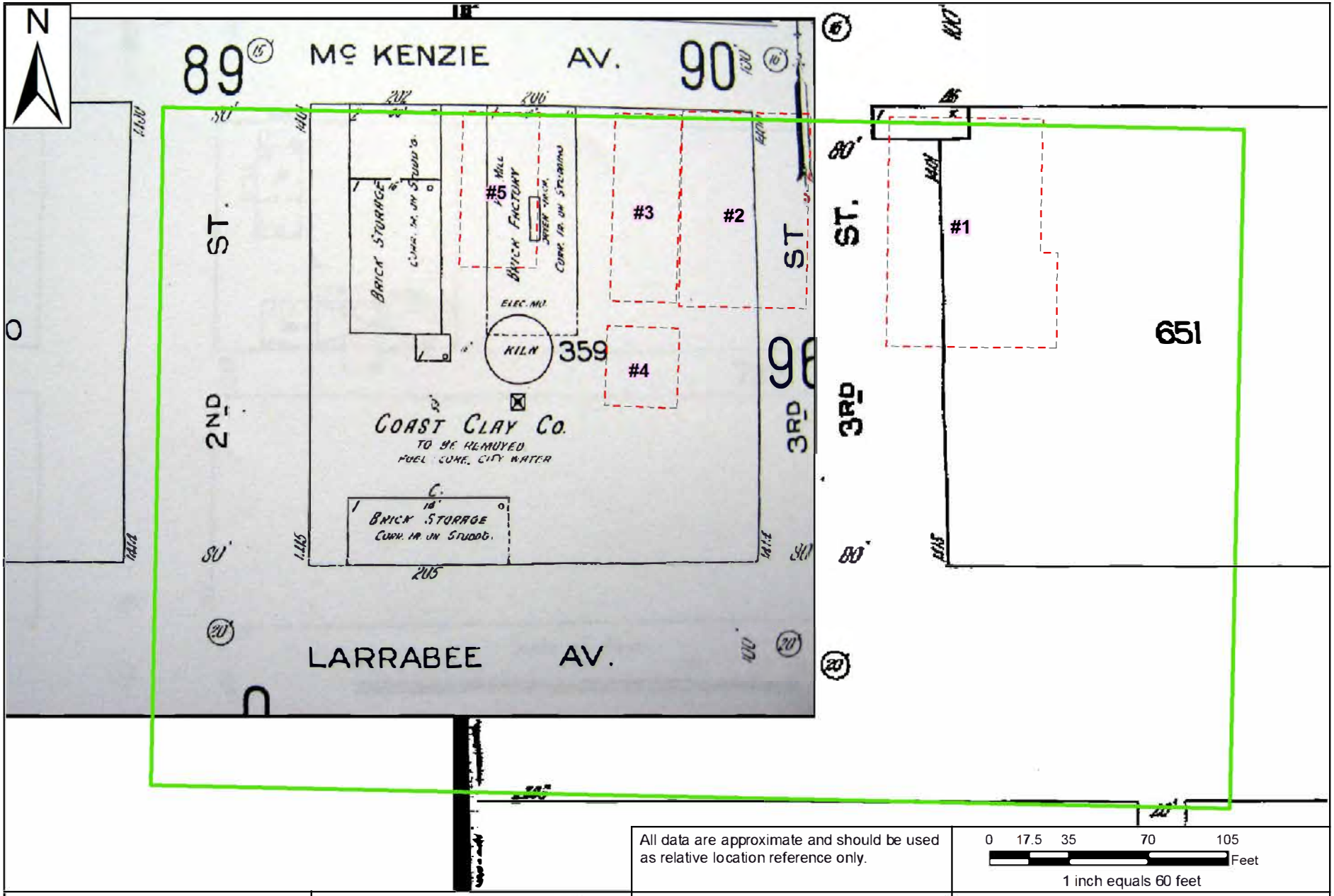
Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

1904 Sanborn Fire Insurance Map

210 McKenzie
RI/F S
6/15/12

Figure D-1



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Subject Property

Current Building Outlines

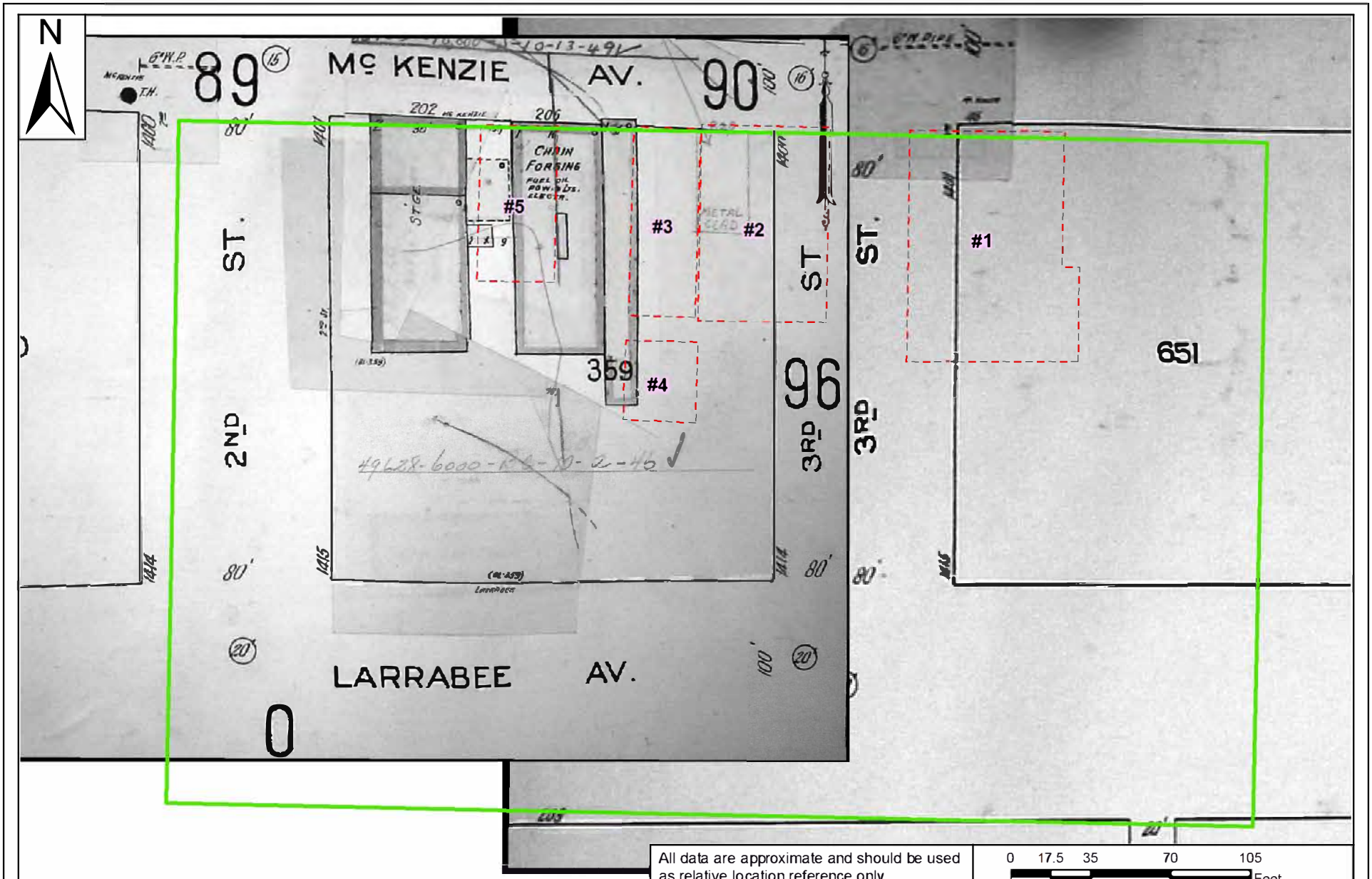
Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

1913 Sanborn Fire Insurance Map

210 McKenzie
RI/F S
6/15/12

Figure D-2



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Subject Property

Current Building Outlines

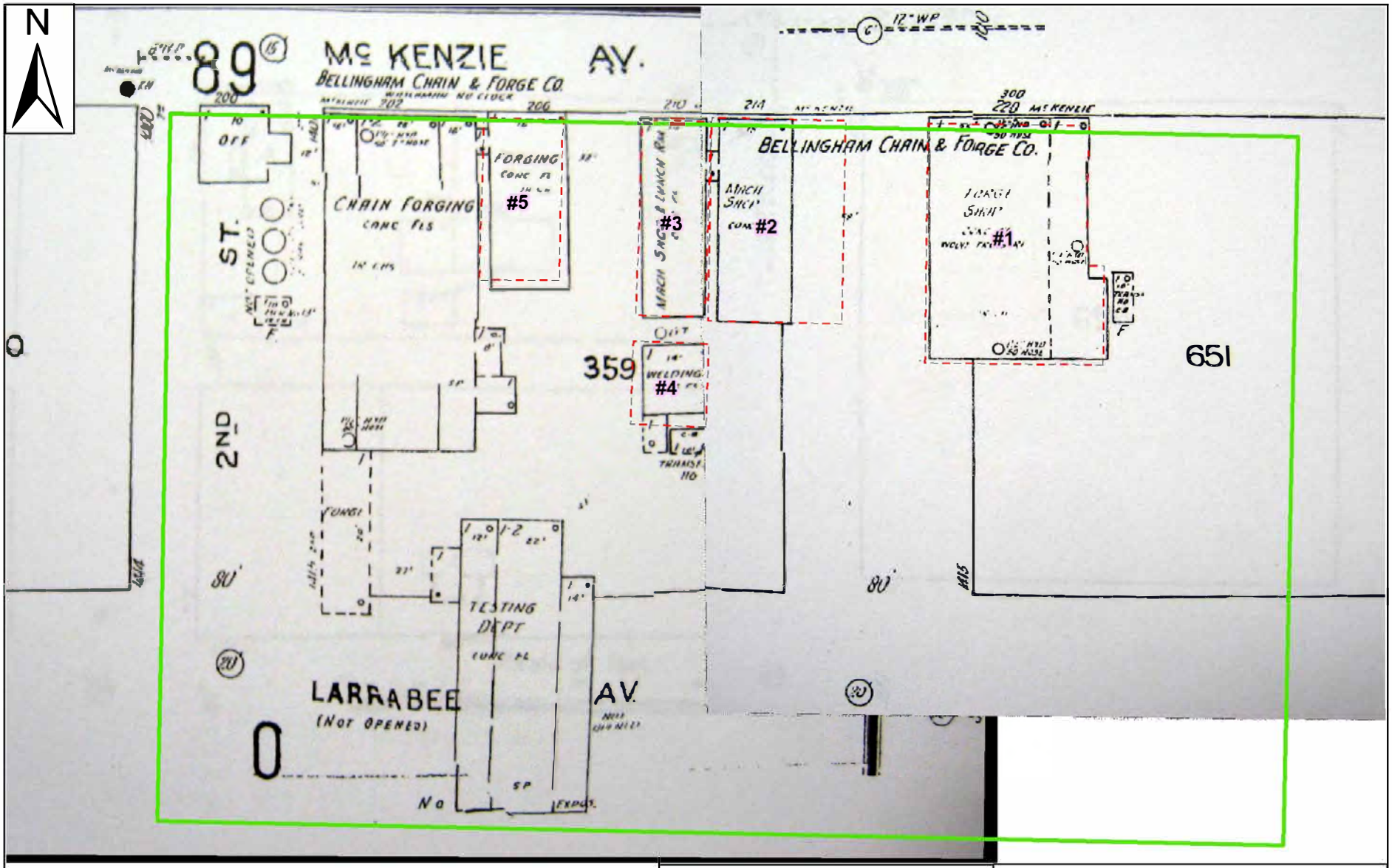
Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

1932 Sanborn Fire Insurance Map

210 McKenzie
RI/F S
6/15/12

Figure D-3



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Current Building Outlines

Subject Property

Prepared for:

City of Bellingham

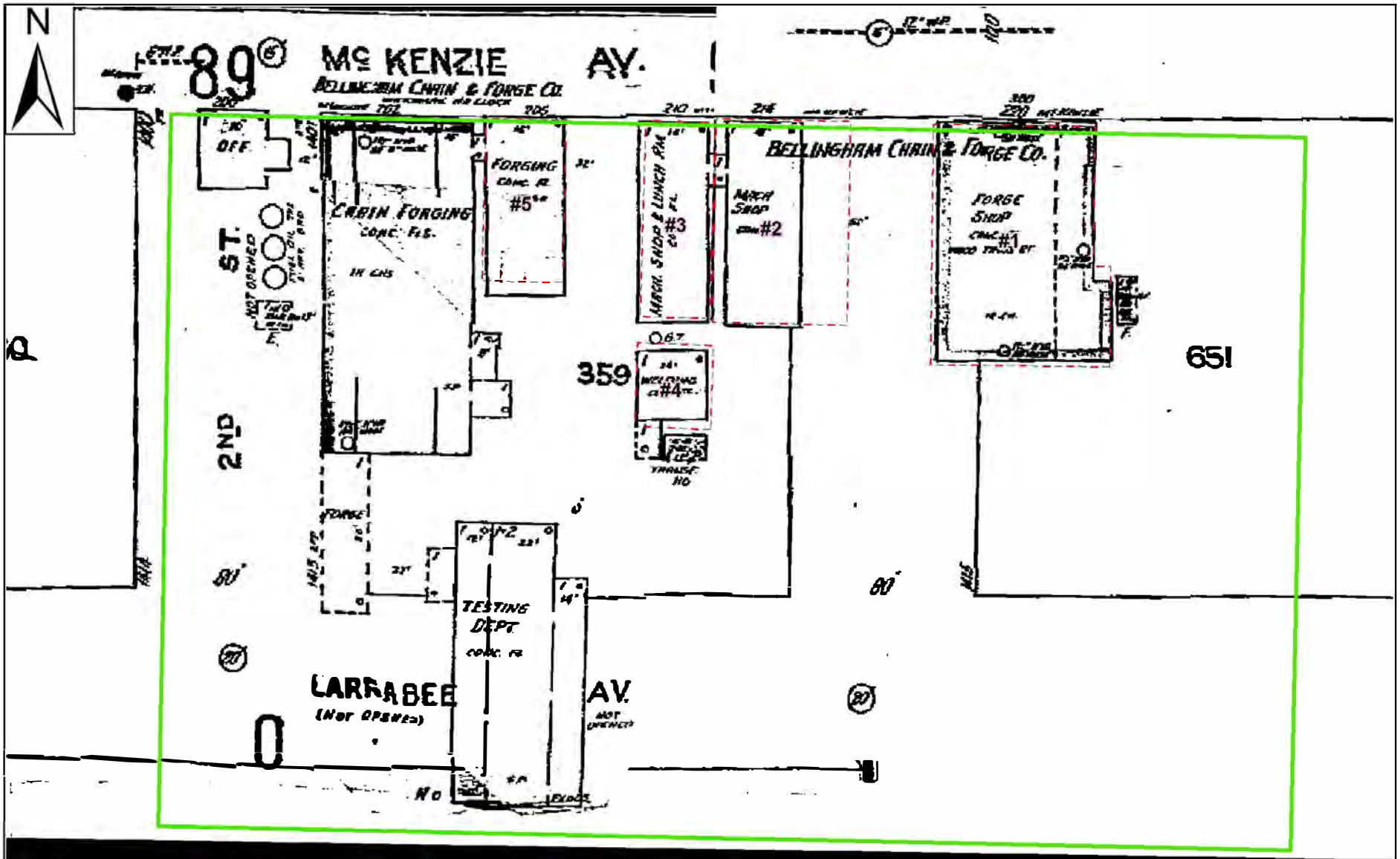
Prepared by:

nwhatcom ENVIRONMENTAL

1940 Sanborn Fire Insurance Map

210 McKenzie
RI/F S
6/15/12

Figure D-4



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Current Building Outlines

Subject Property

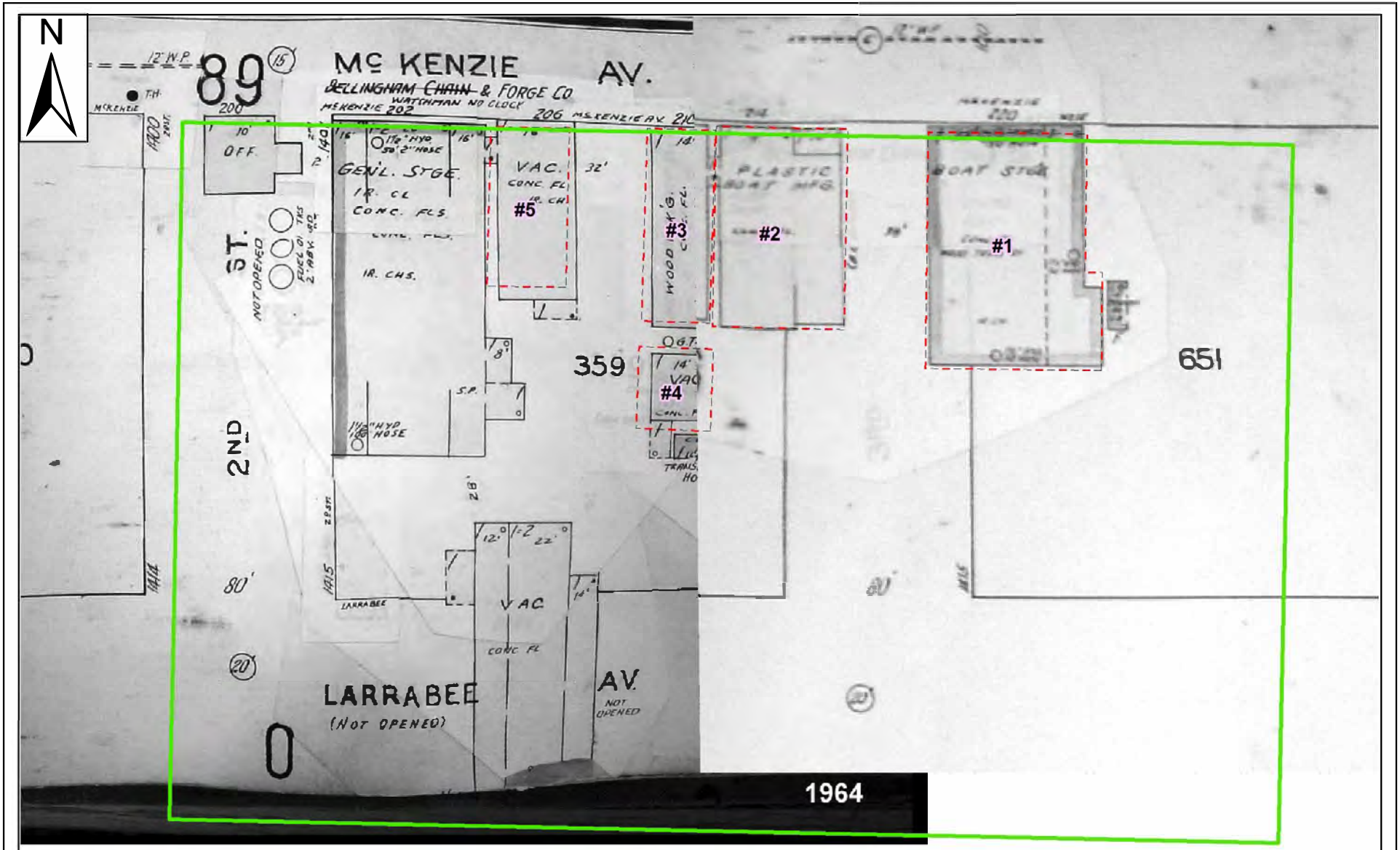
Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

1950 Sanborn Fire Insurance Map

210 McKenzie
RI/F S
6/15/12

Figure D-5



All data are approximate and should be used as relative location reference only.

0 17.5 35 70 105 Feet

1 inch equals 60 feet

Current Building Outlines

Subject Property

Prepared for:

City of Bellingham

Prepared by:

whatcom ENVIRONMENTAL

1964 Sanborn Fire Insurance Map

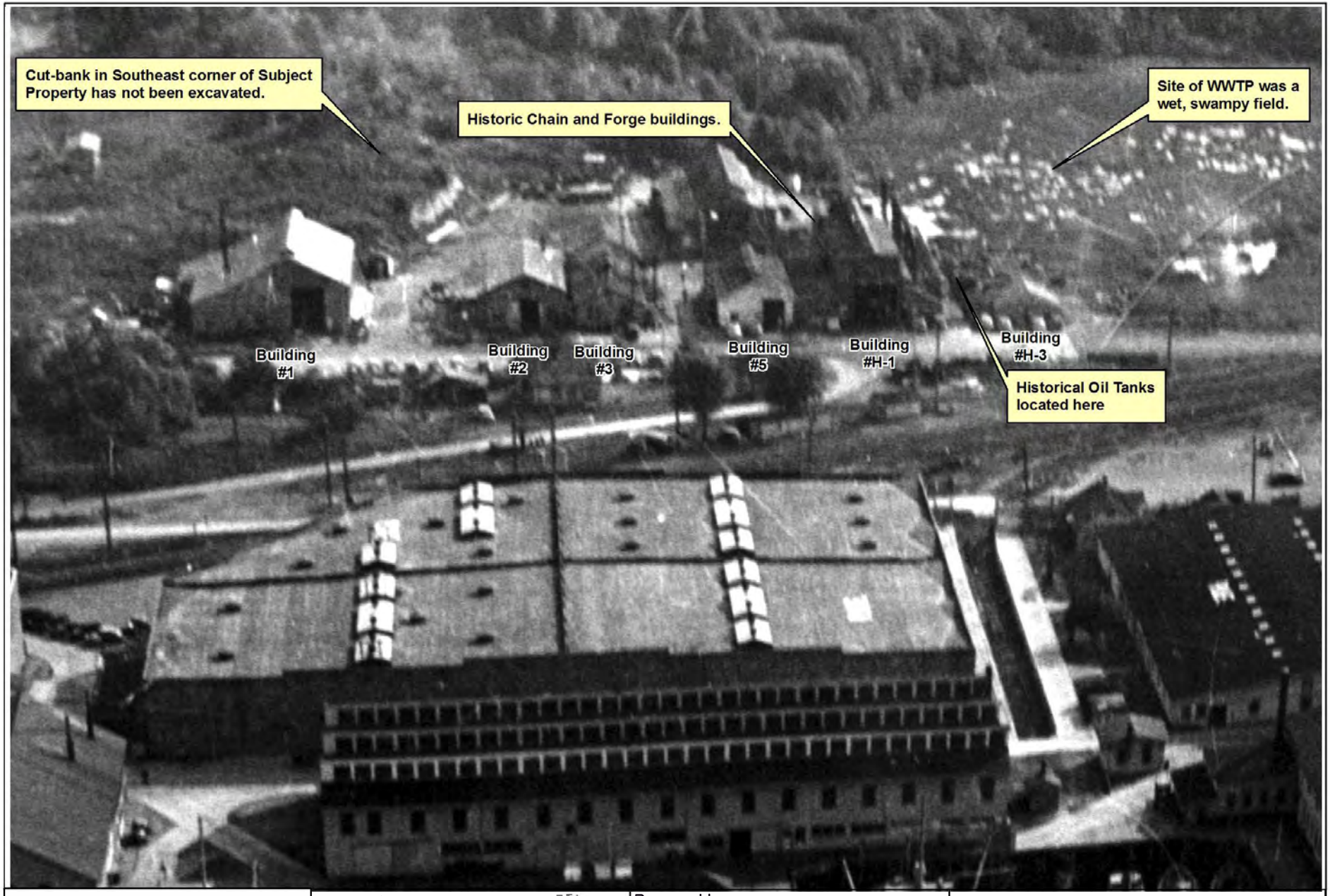
210 McKenzie
RI/F S
6/15/12

Figure D-6

APPENDIX E
HISTORICAL AERIAL PHOTOS

LIST OF HISTORICAL AERIAL PHOTOS

Figure E-1	Subject Property – 1940s
Figure E-2	Subject Property – 1950
Figure E-3	Subject Property – 1962
Figure E-4	Subject Property – 1963
Figure E-5	Subject Property – 1975
Figure E-6	Subject Property – 1986
Figure E-7	Subject Property – 1988
Figure E-8	Subject Property – 1995
Figure E-9	Subject Property – 1997
Figure E-10	Subject Property – 2002
Figure E-11	Subject Property – 2004
Figure E-12	Subject Property – 2008
Figure E-13	Subject Property – 2011



A view looking towards the South

Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

Subject Property - 1940s

210 McKenzie RI/FS

5/14/12

Figure E-1

All data are approximate and should be used as relative location reference only.
1950 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Historic Property Oil Tanks
Property Structures
Subject Property

Prepared for:
City of Bellingham

Prepared by:
nwhatcom ENVIRONMENTAL

Subject Property - 1950

210 McKenzie RI/FS
6/21/12

Figure E-2

All data are approximate and should be used as relative location reference only.
1962 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Historic Property Oil Tanks
Property Structures
Subject Property

Prepared for:
City of Bellingham

Prepared by:
nwhatcom ENVIRONMENTAL

Subject Property - 1962

210 McKenzie RI/FS
5/15/12

Figure E-3

A view looking towards the North

Approximate locations of GW monitoring wells shown on image

Prepared for: City of Bellingham

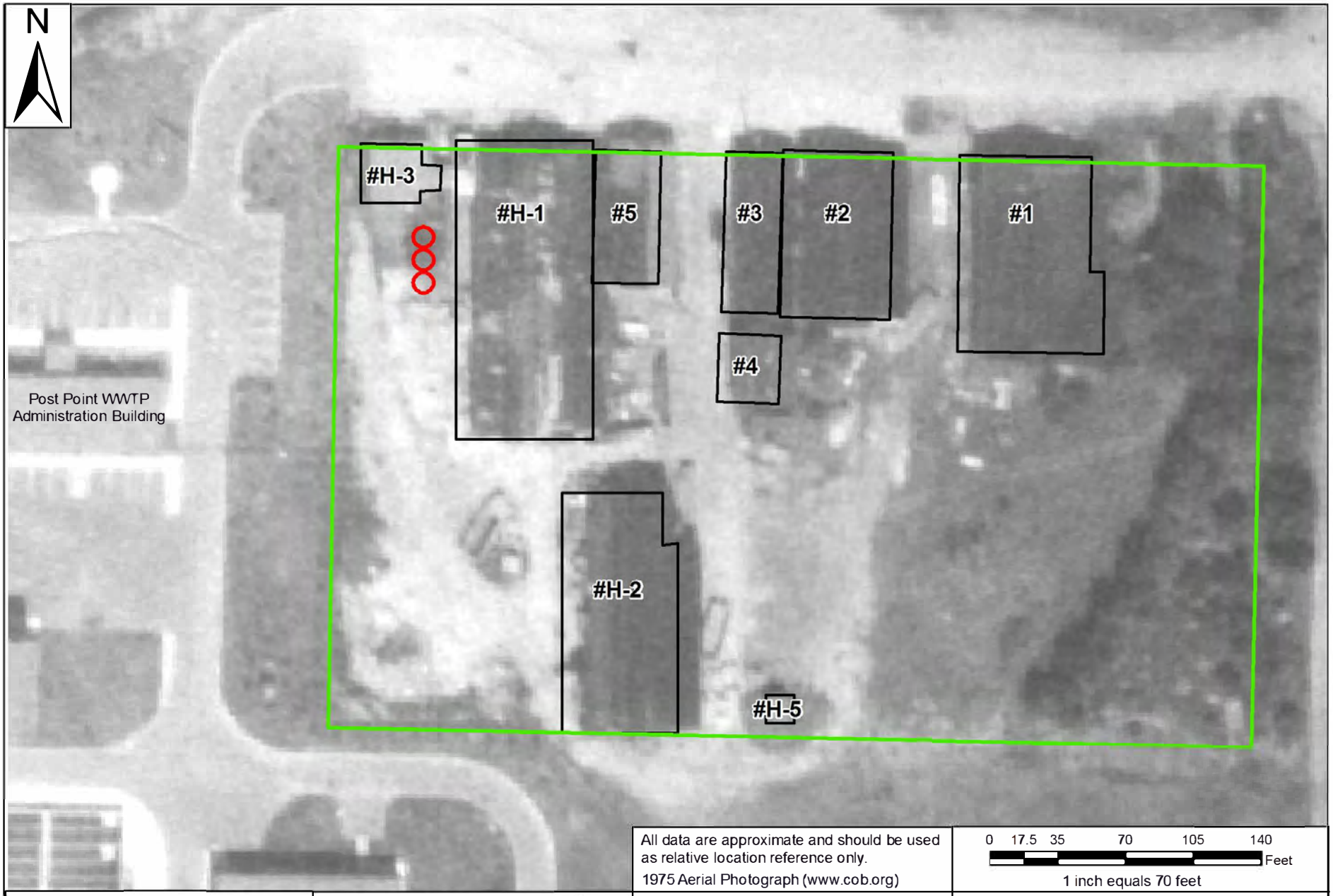
Prepared by: whatcom ENVIRONMENTAL

Subject Property - 1963

210 McKenzie RI/FS

5/15/12

Figure E-4



All data are approximate and should be used as relative location reference only.

1975 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet

1 inch equals 70 feet

Historic Property Oil Tanks
Property Structures
Subject Property

Prepared for:

City of Bellingham

Prepared by:

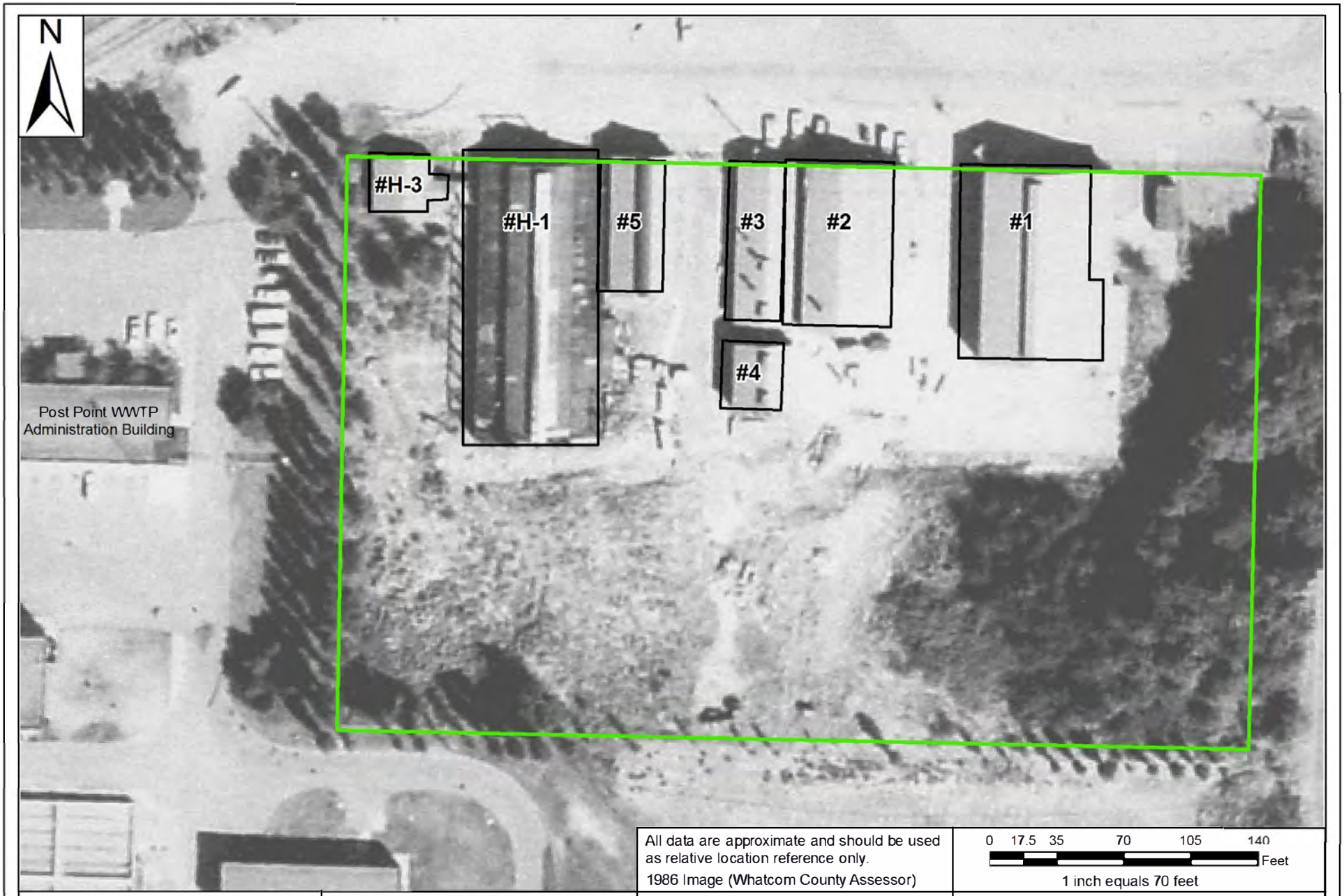
whatcom ENVIRONMENTAL

Subject Property - 1975

210 McKenzie RI/FS

5/15/12

Figure E-5



All data are approximate and should be used as relative location reference only.

1986 Image (Whatcom County Assessor)

0 17.5 35 70 105 140 Feet

1 inch equals 70 feet

Subject Property

Property Structures

Prepared for:

City of Bellingham

Prepared by:

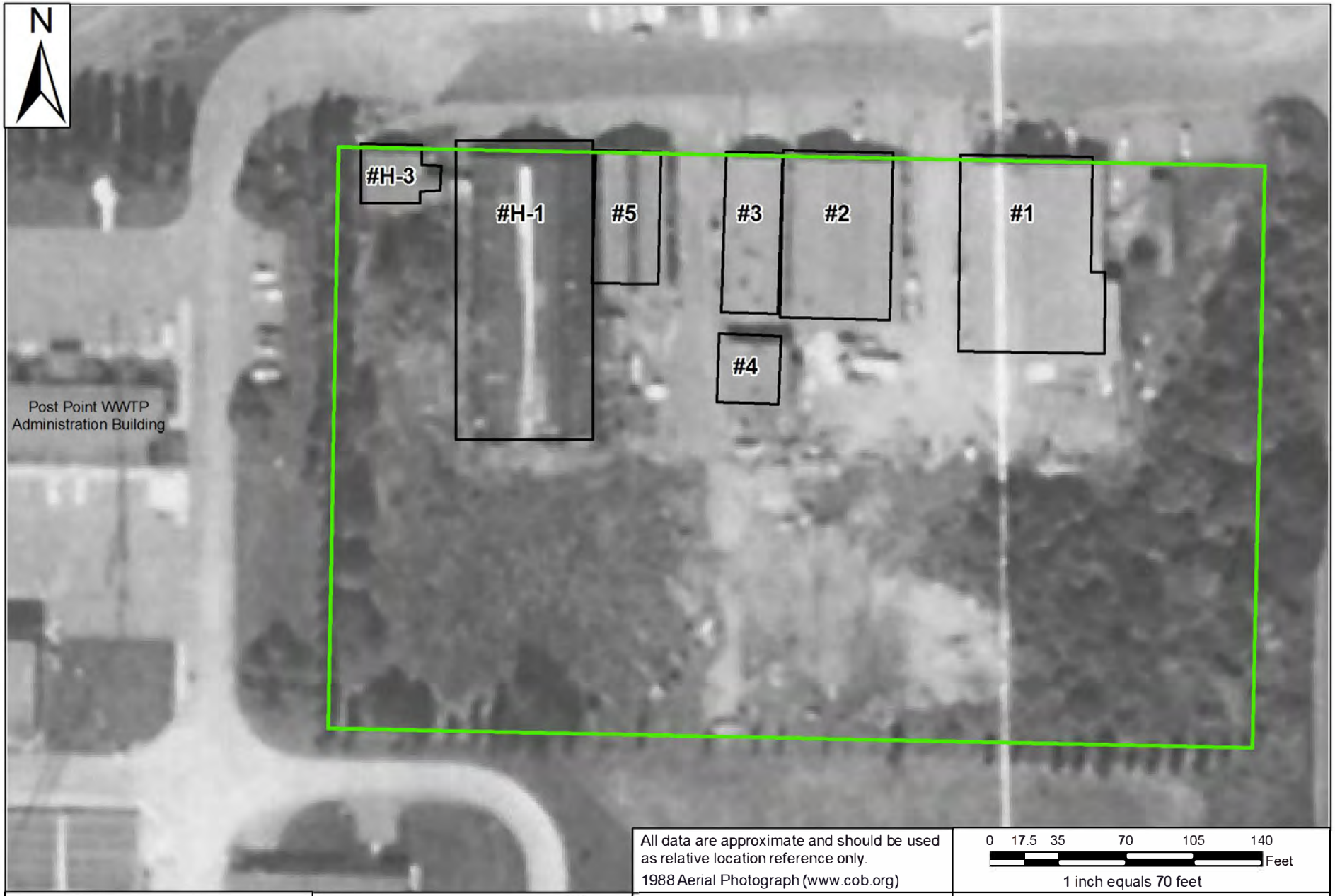
whatcom ENVIRONMENTAL

Subject Property - 1986

210 McKenzie RI/FS

5/1 5/1 2

Figure E-6



All data are approximate and should be used as relative location reference only.
1988 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Property Structures
Subject Property

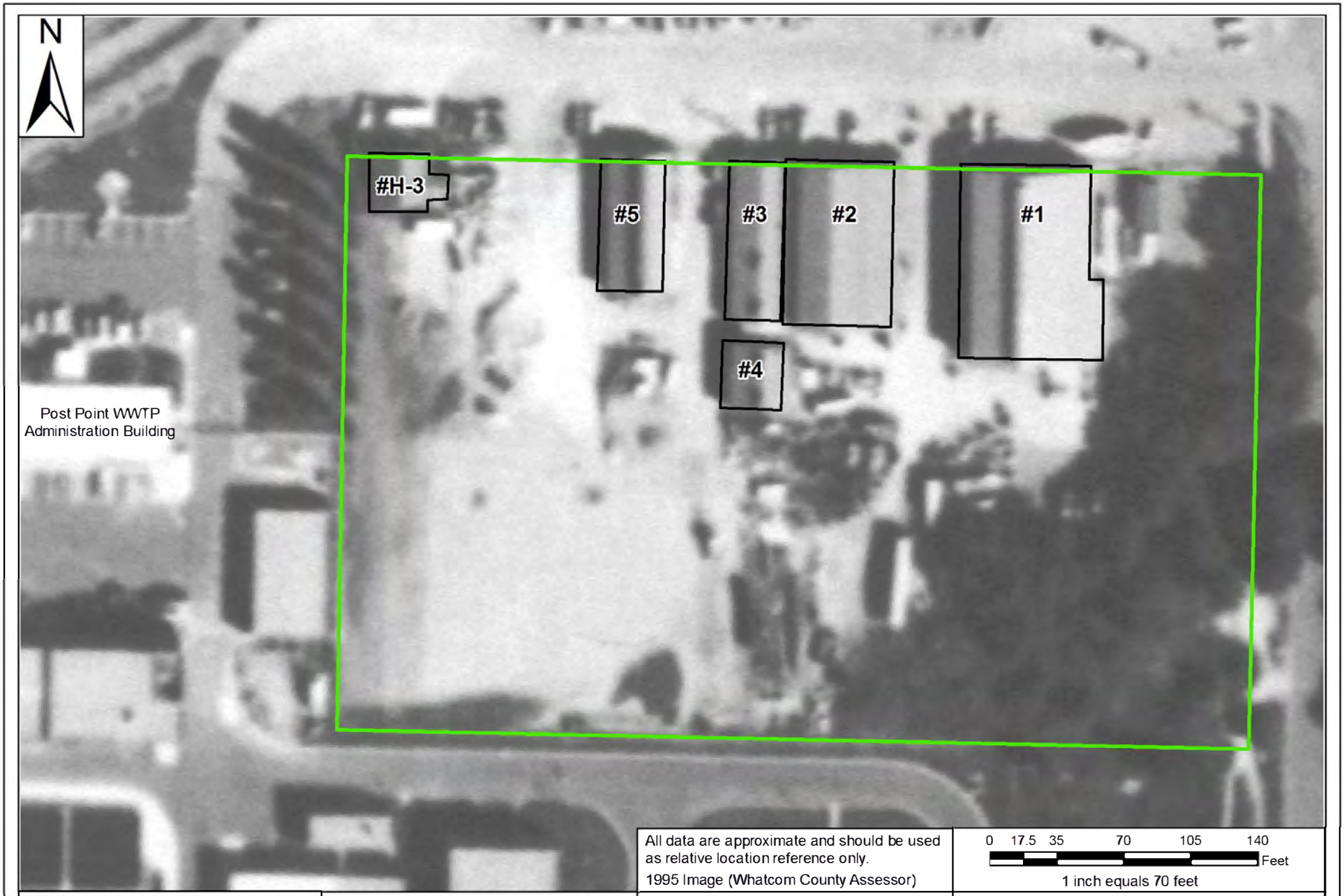
Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Subject Property - 1988

210 McKenzie
RI/FS
5/1 5/1 2

Figure E-7



All data are approximate and should be used as relative location reference only.

1995 Image (Whatcom County Assessor)

0 17.5 35 70 105 140 Feet

1 inch equals 70 feet

Subject Property

Property Structures

Prepared for:

City of Bellingham

Prepared by:

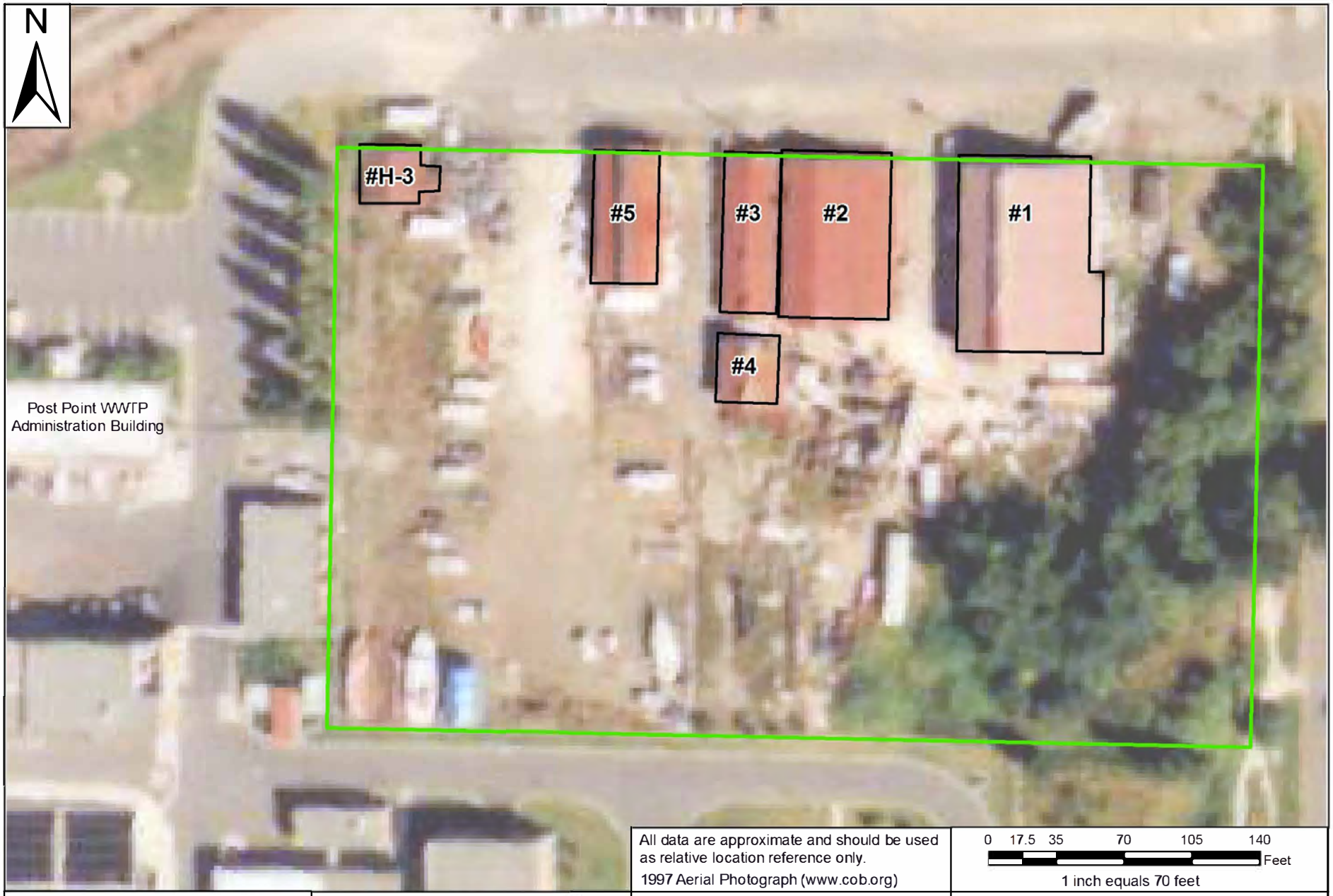
whatcom ENVIRONMENTAL

Subject Property - 1995

210 McKenzie RI/FS

5/1 5/1 2

Figure E-8



All data are approximate and should be used as relative location reference only.

1997 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet

1 inch equals 70 feet

Property Structures

Subject Property

Prepared for:

City of Bellingham

Prepared by:

whatcom ENVIRONMENTAL

Subject Property - 1997

210 McKenzie RI/FS

5/15/12

Figure E-9

All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Property Structures
Subject Property

Prepared for:
City of Bellingham

Prepared by:
nwhatcom ENVIRONMENTAL

Subject Property - 2002

210 McKenzie RI/FS
6/21/12

Figure E-10

All data are approximate and should be used as relative location reference only.
2002 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Property Structures
Subject Property

Prepared for:
City of Bellingham

Prepared by:
nwhatcom ENVIRONMENTAL

Subject Property - 2004

210 McKenzie RI/FS
6/21/12

Figure E-11

All data are approximate and should be used as relative location reference only.
2008 Aerial Photograph (www.cob.org)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Subject Property
Property Structures

Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Subject Property - 2008

210 McKenzie RI/FS
5/15/12

Figure E-12

All data are approximate and should be used as relative location reference only.
2011 Aerial Photograph (GoogleEarth)

0 17.5 35 70 105 140 Feet
1 inch equals 70 feet

Current Fenceline
Property Structures
Subject Property

Prepared for:
City of Bellingham

Prepared by:
whatcom ENVIRONMENTAL

Subject Property - 2011

210 McKenzie RI/FS
5/1 5/1 2

Figure E-13

APPENDIX F
TEST PIT LOGS

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 1	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-6 ft: Sandy gravel, brown, loose (pit run gravel) - Gravel size decreases at ~4 ft bgs		
▼		W	Wet below 4 feet. Water sample collected. Oily sheen observed on water in trench.		
5		S	Soil sample collected at 6 ft bgs. Sandy gravel, brown, loose, wet (pit run gravel)	MS	0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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www.whatcomenvironmental.com

Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #1

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West of former tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 2	Depth to Water:	5.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Crushed rock and pit run gravel fill		
	Brick Fill		1-5 ft: Brick fill with layers of black asphalt like substance intermixed (sample collected).		
2.5	Sludge Fill	S	Fine sand, black (asphalt-like), soft, moist	HS	0
	Glass Fill		1 foot layer of broken glass encountered at ~4 ft		
5 ▼	GM		Water entering trench from east at ~5.5 ft - West end of trench was dry to ~10 ft Silty sandy gravel, brown, loose, wet		
7.5			Transition zone not well defined due to excessive water in trench		
10	ML	S	Fine sand, greenish gray, firm, wet	VSS	0
12.5			Total trench depth 11 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #2

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of former tanks, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/17/2007
Trench ID:	Trench 3	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel)		
			Minor brick fill encountered within 1 to 3 ft bgs		
2.5		S	3-4.5 ft: Medium-Coarse sand w/ gravel, black, loose, wet	NS	0
▼			Water encountered at ~4 ft bgs in south end of trench. Heavy Sheen noted on water.		
5	ML	S	4.5-6.5 ft: Silty fine sand, brown, firm, wet	HS	32
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

WHATCOM ENVIRONMENTAL SERVICES INC.
www.whatcomenvironmental.com

Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #3

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	NW corner of property, N-S trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 4	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1.5 ft: Sandy gravel, brown, loose (pit run gravel)		
2.5	GC		1.5-4 ft: Silty gravel, brown, loose, moist		
▼	Brick Fill w/ black staining	S W	Clayey silt w/ moderate gravel, brown, sticky, wet Collected water sample. Slight Sheen noted.	VSS	0
5			4-6 ft: Brick fill encountered on east sidewall. No brick observed on west sidewall.		
	GC	S	6-7 ft: Silty gravel, black, abundant organics, sticky, wet	SS	0
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

WHATCOM ENVIRONMENTAL SERVICES INC.
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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #4

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	South of tanks, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 5	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Surficial steel reinforced concrete slab		
	GP		0.67-3.5 ft: Sandy gravel, brown, loose (pit run gravel)	VSS	
2.5	Brick Fill w/ black staining, metal debris, & organics		Encountered brick fill at ~ 4 ft bgs at east end of trench and ~ 1.5 ft bgs on the west		
	Brick Fill w/ black staining, metal debris, & organics		Water observed to enter trench at ~5 ft, but stablized at ~6 ft bgs*		
5 ▼	Brick Fill w/ black staining, metal debris, & organics	S	Sandy silt w/ moderate gravel and abundant organics, black, plastic, wet	NS	0
	Brick Fill w/ black staining, metal debris, & organics		Transition zone not well defined due to excessive water in trench		
7.5	GC		7-8.5 ft: Silty fine sand, gray, firm, wet		
			Total trench depth 8.5 ft bgs.		
10			* Trench water observed w/ Heavy Sheen and free floating black oil globules		
12.5					

WHATCOM ENVIRONMENTAL SERVICES INC.
www.whatcomenvironmental.com

Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #5

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 5, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/18/2007
Trench ID:	Trench 6	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3.5 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, metal debris, & organics	S	Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end Medium to coarse sand sized metal fragmants, black, loose, dry	NS	0
5 ▼			Transition zone not well defined due to excessive water in trench		
7.5	GC	S	6-8.5 ft: Fine sand w/organics, greenish gray, firm, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

WHATCOM ENVIRONMENTAL SERVICES INC.
www.whatcomenvironmental.com

Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #6

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	25 ft south of Trench 6, E-W trench
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 7	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-3 ft: Sandy gravel, brown, loose (pit run gravel) 0.5-1 ft: Steel reinforced concrete slab		
2.5	Brick Fill w/ black staining, ash, metal debris, & organic material		Brick and debris fill material encountered at various depths over length of trench - most abundant towards east end and encountered at lower depths Large chain links encountered in fill material		
5			Water encountered at ~5 ft bgs at east end, and 6.5 ft bgs at west end of trench*		
		S	Medium to coarse sand sized metal fragmants, black, loose, dry	MS	0
	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - was encountered below 6' depth on west end of trench		
7.5			Attempted to dig trench deeper but excessive water and sloughing sidewalls prevented further excavation.		
10			* Moderate sheen observed on water surface at east end of trench		
12.5			Total trench depth approximately 6.5 to 7 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #7

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of former forge building
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 8	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.5 ft: Sandy gravel, brown, loose (pit run gravel)		
	Black metal shavings, metal pieces, and other debris		0.5-1.2 ft: Steel reinforced concrete slab 1.2-4 ft: Miscellaneous fill materials		
2.5					
	Red Bricks		4-5 ft: layer of red brick fill material	NS	
5	GC		5-6.5 ft: Clayey silt with gravel, tan, firm, wet - depth approximate		
			Water encountered at ~7 ft bgs		
7.5	OH	S	6.5-8.5 ft: Silty fine sand w/ abundant organics, brown, sticky, wet	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #8

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	N. end of boat storage area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 9	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GM		0-2 ft: Gravely silty clay material encountered above fill.		
2.5	CDF or concrete		3 ft: White colored rotten concrete or CDF		
▼	Black metal pieces, and organic debris	S	4 ft: Medium sand w/ gravel, abundant organics, black, hard, dry - Fill debris - Slucied material left sand sized metal fragments	NS	0
5					
	GC		7 ft: Clayey silt w/ gravel, gray, hard, dry		
7.5			Water encountered at depth but filled trench to 4 ft as seen in photo Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #9

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SW corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 10	Depth to Water:	3 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist	HS	514
2.5 ▼			2-9 ft: (depth approximate) Trash fill material - Trash includes: bottles, metal, wood, fiber glass Water encountered at 3 ft bgs with Heavy Sheen		
5					
7.5		S	7 ft: Silty gravel, brown, loose, wet	MS	13
	OL		Peat encountered at ~9 ft bgs		
10			Total trench depth 9.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #10

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 11	Depth to Water:	4.5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2.5 ft: Coarse sandy gravel, brown, loose, moist		
2.5	Black staining, metal pieces, and debris		2.5-5 ft: Black stained layer, metal debris, and other miscellaneous fill material		
▼			Water encountered at approximately 4.5 ft bgs		
5	SM				
7.5		S	5-8 ft: Silty sand w/ gravel, gray, loose, moist	NS	0
			Total trench depth 8.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #11

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near SE corner of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 12	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM	S	1-2.5 ft: Silty coarse sand w/ gravel, brown, loose, moist	VSS	0
2.5					
	ML		2.5-10 ft: Clayey silt, tan, firm, dry (native diamicton)		
5					
			No water encountered in trench		
7.5					
10			Total trench depth 10 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #12

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Eastern edge of fenced western area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 13	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-1 ft: Coarse sandy gravel, brown, loose, moist		
	GM		1-2.5 ft: Silty coarse sand w/gravel, brown, loose, moist to dry		
2.5	ML		2.5-6 ft: Silty fine sand w/ gravel, tan, hard, dry (native diamicton)		
5			No water encountered in trench No samples collected from trench		
7.5			Total trench depth 6 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #13

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW of gate in western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 14	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
0	GP	S	0-2 ft: Coarse sandy gravel, brown, loose, moist - fill material - charred wood observed in sample collected from ~1 ft bgs	VSS	0
2.5	GM		2-7.5 ft: Silty fine sand w/ gravel, brown to olive brown, firm, dry (native diamicton) No water encountered in trench		
5					
7.5			Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #14

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of western fenced area
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 15	Depth to Water:	6 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: coarse sandy gravel, brown, loose, moist (fill material)		
5					
	Red Bricks		5.5-6.5 ft: Red brick fill material Water entering trench at brick fill		
7.5	GC	S	6.5-8.5 ft: Fine sand, gray, firm, wet	VSS	0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #15

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SE of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 16	Depth to Water:	approx. 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	Red Bricks		0-1 ft: Steel reinforced concrete slab - Encountered conduit pipes and old water lines just above the brick fill 1-2 ft: Red brick fill material		
2.5	GP		2-4 ft: Coarse sandy gravel fill material		
5	ML		4-8 ft: Native material. Silty fine sand and Sandy silts, brown, firm, wet at depth	NS	0
7.5			Water encountered at depth in trench - No sheen observed on water Did not collect sample from trench	NS	
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #16

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	East of tankpit in concrete slab
Project:	210 McKenzie Avenue	Date Excavated:	4/19/2007
Trench ID:	Trench 17	Depth to Water:	6 to 7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.8 ft: Steel reinforced concrete slab		
	Bricks		0.8-3.5 ft: Mixture of brick and discolored fill material		
2.5	Black stained soil and debris				
			3.5-7.5 ft: Coarse sandy gravel fill material, brown, loose, moist to wet		
5	GP		Water entered trench at ~7 ft bgs and leveled out at ~6 ft.		
			Old 1.5 ft diameter pipe encountered at ~7 ft bgs.		
			- Water entered from old pipe		
7.5			- Pipe removed from ground		
	ML		7.5-8 ft: Silty fine sand, brown, firm, wet		
			- No sheen observed on water in trench		
10			- No sample collected from trench		
			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #17

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	12' east of Trench 10
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 18	Depth to Water:	4 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-2 ft: Coarse sandy gravel fill material		
2.5			2-5.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets Water encountered at 4 ft bgs with Heavy Sheen	HS	
5			Voids were observed in the fill material		
			No samples collected. Trench was excavated to characterize the extent of contamination near Trench 10.		
7.5			Total trench depth 5.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #18

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~20' east of Trench 18
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 19	Depth to Water:	5 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GP		0-5.5 ft: Coarse sandy gravel fill material		
5		W	Water encountered at ~5 ft bgs with Heavy Sheen - Water sample collected 5.5-6.5 ft: (depth approximate) Trash fill material - Trash includes: metal, wood, fiberglass sheets		
7.5			No soil samples collected. Trench was excavated to characterize the extent of contamination near Trench 10. Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #19

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	North end of property, east of John's Repair
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 20	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
			0-0.5 ft: Concrete slab		
2.5	GM		0.5-8.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Area investigated near concrete filled pipe north of UST location. No indication of tank near filled pipe.		0
7.5			- Dry material to depth of trench.		
			- No sample collected. No PID readings.		0
10			Total trench depth 8.5 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #20

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	~40' south of concrete loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 21	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7.5 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
			- No sample collected. No PID readings.		
7.5			Total trench depth 7.5 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #21

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 22	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-7 ft: Sandy silty gravel, brown, hard, dry (native diamicton)		0
5			- Dry material to depth of trench.		0
7.5			- No sample collected. No PID readings. Total trench depth 7 ft bgs.		0
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #22

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near southern center of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 23	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	- Collected surface sample (0-1 ft) 0-1 ft: Silty sand w/ gravel, dark brown, loose, dry	VSS	0
5	ML		1-7.5 ft: Fine sandy silt, minor gravel, brown, firm, dry - Lenses of moist gray fine sands to sandy silts encountered at ~5' bgs on west side of trench		
7.5			- No water encountered in trench - Dry material to depth of trench. Total trench depth 7.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #23

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	SW edge of dug out slope on SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 24	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		0-4 ft: Silty sand w/ minor gravel, brown, firm dry (native diamicton)		
5	ML		4-7 ft: Fine sandy silt, brown, hard, dry (native diamicton) - Digging dificult in unit - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		
7.5			Total trench depth 7 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #24

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near center of dug out slope in SE corner
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 25	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM		- Surficial puddles due to recent rainfall 0-4 ft: Silty sand w/ gravel, brown, firm, dry - Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings. Total trench depth 4 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #25

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	West end of surface drainage ditch, SE of IOTA
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 26	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP	S	- Collected surficial sample of sand blast grit 0-1 ft: Sandy gravel, brown, loose, moist	VSS	0
2.5	ML		1-4 ft: Clayey silt, brown, hard, dry		0
5	CL		4-8 ft: Silty clay, gray, hard, dry		0
7.5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #26

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Center of the east edge of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 27	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		- Very slight sheen observed in surficial gravel 0-1.5 ft: Surficial gravel, brown, loose, dry	VSS	0
2.5	ML		1.5-6.5 ft: Fine sandy silt w/ minor gravel, brown, firm to hard, dry		0
5			- Dry material to depth of trench. - No water encountered in trench - No sample collected. No PID readings.		0
7.5			Total trench depth 6.5 ft bgs.		
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #27

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	100' south of northern property edge, east side
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 28	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.25 ft: Asphalt 0.25-2.5 ft: Pit run gravel, crushed rock (fill material)		
2.5	ML		2.5-8 ft: Sandy silt, brown w/ minor gravel, brown, firm to hard, dry to moist at depth - Lenses of moist gray silts encountered deeper in trench - Moisture content at depth - No water encountered in trench - No sample collected. Total trench depth 8 ft bgs.		
5					
7.5					
10					
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #28

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Near NE corner of property
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 29	Depth to Water:	7 feet bgs

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
	GP		0-0.67 ft: Pit run gravel fill material at surface		
			0.67-6 ft: Clayey silt w/ gravel, gray, firm, moist		
2.5	OL	S	- Sample collected. Clayey silt w/ gravel and heavy organics, gray, firm, moist to wet	SS	0
			- Material appears to be reworked diamicton		
5			- Water encountered at ~7' bgs. Material was moist to wet from surface to depth.		
			- Transition area difficult to discern		
▼ 7.5	OH	S	6-12 ft: Large woody debris and peat layers encountered in reworked diamicton that was gray, plastic, and wet. Abundant organics observed below 6' depth.	VSS	0
			- Collected sample ~8' bgs. Silty fine sand w/ abundant organics, brown, plastic, wet		
10			- Walls of trench calved often due to moisture content of material.		
12.5			Total trench depth 12 ft bgs.		

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #29

TRENCH EXCAVATION LOG

Client:	City of Bellingham	Location:	Below west end of removed loading ramp
Project:	210 McKenzie Avenue	Date Excavated:	4/23/2007
Trench ID:	Trench 30	Depth to Water:	None

Depth (ft.)	Symbol	Sample	Soil Descriptions and Notes (depths are approximate)	Sheen	PID (ppm)
2.5	GM	S	0-8 ft: Silty fine sand w/ moderate gravel, brown, firm, dry - Sample collected at 1' to characterize soil below demolished concrete loading ramp - Dry material to depth of trench. - No water encountered in trench	VSS	0
5					
7.5					
10			Total trench depth 8 ft bgs.		
12.5					

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Project: 210 McKenzie Subsurface Investigation

Trench ID: TRENCH #30

Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-1**
Location: Approximately 35 ft S. And 40 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 8.5 ft

Depth/Description		PID (ppm)	Sheen	Sample
0 to 3 ft Silty sandy gravel, brownish gray, hard, dry			SS	x
3 to 4 ft Begin to encounter debris				x
Sandy gravel with brick, concrete, asphalt, and metal			SS	
6 ft Silty sand with gravel, brown, sticky, wet			HS	x
-abundant brick fragments				
8 ft Medium sand, gray, firm, wet (possibly native)			NS	x
Excavation stopped at 8.5 ft due to calving sidewalls				

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-2**
Location: Approximately 35 ft S. And 29 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 8 ft

Depth/Description		PID (ppm)	Sheen	Sample
0 to 3 ft Silty gravel, brownish gray, hard, dry			SS	x
4 ft Sandy gravel with black shiny fragments			MS	x
6 ft Sandy gravel with brick, wood and metal fragments, brown, wet			VSS	x
8 ft Medium sand, gray, loose, wet (possibly native)			VSS	x
Excavation stopped at 8.5 ft due to calving sidewalls				

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-3**
Location: Approximately 56 ft S. And 36 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 7 ft

Depth/Description		PID (ppm)	Sheen	Sample
0 to 4 ft Sandy gravel, brown, loose, dry (backfill material)			SS	x
	@ 4 ft		MS	x
5 to 6 ft Broken glass				
6 to 7 ft Sandy silt, brown, hard, wet with minor glass fragments			VSS	x
Excavation stopped at 7.5 ft due to calving sidewalls				

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-4**
Location: Approximately 56 ft S. And 15 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 5 ft

Depth/Description		PID (ppm)	Sheen	Sample
0 to 2 ft Silty clay, brown, firm, moist			VSS	x
4 ft Mixture of Silt, gravel, metal fragments, & brick - abundant brick and metal wire			NS	x
5ft Mixture of Silt, gravel, and metal fragments			NS	x
Excavation stopped at 5.5 ft due to calving sidewalls				

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-5**
Location: Approximately 96 ft S. And 36 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 8 ft

Depth/Description		PID (ppm)	Sheen	Sample
0.5 ft Encountered concrete slab				
2 to 6 ft Mixture of silty sand and brick and metal fragments	@2 ft		NS	x
	@4 ft		SS	x
	@6 ft		NS	x
8 ft Silty fine sand, gray, moderate gravel, firm, dry to moist (possibly native)			NS	x
Excavation stopped at 8.5 ft due to calving sidewalls				

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Test Pit Log

Project: 210 McKenzie Investigation
Client: City of Bellingham
Boring Number: **TP2012-6**
Location: Approximately 90.5 ft S. And 16 ft E. of NW Fence corner
Date Completed: 5/2/12

Sheet: 1 of 1
Dug by: COB: Jason w/ Backhoe
Logged by: Harold Cashman
First Encountered Water: 5 ft
Total Depth: 8 ft

Depth/Description		PID (ppm)	Sheen	Sample
0 to 2 ft Silty clay, brown, firm, dry				
- @ 1.5 ft encountered a layer of black shiny metal flakes			MS	x
4 ft Silty clay with moderate sand, brown, sticky, wet			NS	x
6 ft Silty fine sand with moderate silt, brown, sticky, wet			NS	x
8ft Clayey silt with minor gravel, gray, plastic, wet			NS	x

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-1-20
Location: SW of the eastern building
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~3 inches crushed rock					
0.25 to 0.5 ft	Buried Asphalt layer					
0.5 to 6.0 ft	Clayey sandy gravelly silt, brown, hard, dry					
	Various sizes of cobbles from 1.5 to 5 ft bgs	As - 5	1 ft	1.6	VSS	
		As - 9	2 ft	1.3	VSS	
	Charcoal bits noted at 3 ft bgs	As - 5	3 ft	1.0	VSS	
		As - 8	4 ft	0.9	NS	
		As - 5	5 ft	1.7	VSS	5 ft
		As - ND	6 ft	1.8	NS	
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-2-20
Location: North-center of property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches asphalt					
0.17 to 0.33 ft	Sandy gravel, brown, firm, dry					
		As - 6	1 ft	9.0	VSS	
0.33 to 2.0 ft	Gravelly sandy silt with cobbles, woody and metal debris, gray, hard, moist	As - 5	2 ft	1.7	VSS	
2.0 to 4.0 ft	Gravelly sandy silt with cobbles, brown, hard, dry					
		As -ND	3 ft	1.7	VSS	
4.0 to 5.0 ft	Gravelly sandy silt with cobbles, gray, hard, dry	As - ND	4 ft	1.5	SS	
		As - ND	5 ft	1.8	SS	5 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-3-20
Location: SE corner of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of grass and top soil					
		As - ND	0.5 ft	1.1	VSS*	
0.25 to 2.5 ft	Silty gravelly medium sand, brown, firm, moist.					
		As - ND	1 ft	1.1	VSS*	
2.5 to 6.0 ft	Gravelly sandy silt, brown, hard, dry.					
		As - ND	2 ft	1.1	VSS*	
		As - ND	3 ft	1.1	VSS*	
	Cobbles at 4 ft bgs - not plentiful	As - ND	4 ft	1.0	VSS	
		As - 4	5 ft	1.3	SS	5 ft
		As - ND	6 ft	1.0	VSS	
	Soil Sample Collection Depth					
	* - indicates a weathered sheen					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-4-20
Location: Approximate center of SE quardrant of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 6.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of grass and top soil					
		As - ND	0.5 ft	1.3	SS*	
0.25 to 1.75 ft	Sandy gravel, dark gray, firm, moist					
	Charcoal and rebar noted in upper 1.75 ft.	As - ND	1 ft	0.8	VSS*	
	Geotextile fabric noted at 1.75 ft. bgs					
		As - ND	2 ft	1.4	VSS	
1.75 to 6.0 ft	Gravelly silty medium to fine sand, brown, hard,					
	moist. Moisture content increased at 5 ft.	As - ND	3 ft	1.3	VSS	
	Observed old surface layer grass below filter fabric					
	from 1.75 to 2.0 ft. bgs	As - 11	4 ft	1.4	VSS	
		As - 5	5 ft	1.3	SS	5 ft
		As - 4	6 ft	0.6	VSS	
	Soil Sample Collection Depth					
	* - indicates a weathered sheen					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-5-20
Location: Approximately center on East side of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water:
Total Depth: 5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3-in. of Grass and top soil					
		As - ND	"@ 0.5 ft			
0.25 to 0.75 ft	Sandy organic silt, dark brown, soft, moist.					
		As - ND	@ 1 ft	0.1	VSS	
1.75 to 5.0 ft	Sandy gravelly silt, brown, hard, dry					
	- changes to gray at 5 ft. bgs	As - ND	@ 2 ft	1.0	NS	
	- cobbles encountered 3.5 to 4 ft. bgs					
		As - ND	@ 3 ft	0.9	VSS	
		As - 4	@ 4 ft	0.9	VSS	
		As - 3	@ 5 ft	0.8	VSS	5 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-6-20
Location: In the alleyway west of the eastern building, north of TP-1
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: NA
Total Depth: 4.75 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	10 inches asphalt					
	Hard getting through asphalt; excavated to approximately 2 ft bgs before a large enough hole had been excavated to retrieve samples without asphalt residual material.					
~1.0 to 4.75 ft	Sandy gravelly clayey silt, brown, hard, moist.					
		As - ND	3 ft	1.6	NS	
		As - ND	4 ft	0.8	VSS	
	Could not get deeper than 4.75 ft due to thick asphalt getting in the way of the excavator bucket's motion	As - ND	4.75 ft	1.1	VSS	4.75 ft
	Soil Sample Collection Depth					

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Test Pit Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: TP-7-20
Location: On the north side of the SW quadrant of the property
Date Completed: 11/10/2020

Sheet: 1 of 1
Excavated by: Ram Construction
Logged by: Thom Davis - WES
First Encountered Water: 4.5 ft.
Total Depth: ~5.0 ft

Depth	Description	XRF (ppm)	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~4 inches of crushed rock on geotextile fabric					
0.33 to ~1.0 ft	Sandy gravel, brown, hard, moist. (gravel from old boatyard)	As - ND	1 ft	1.1	VSS	
~1.0 to 1.5 ft	Gravelly sandy silt, brown, firm, moist.					
1.5 to ~5.0 ft	Fill material consisting of: Rusty colored sandy gravel Black sandy metal shavings (sand blast grit) and paint flakes, tan refractory brick chunks, metal rods, springs, metal shavings, and thick steel plate debris.	As - ND	2 ft	1.7	SS	2 ft
		As - ND	3 ft	1.7	SS	
	Water started entering the excavation at ~4.5 ft bgs and settled at ~4.2 ft after ~10 minutes.	As - 17	4.5 ft	1.1	VSS	
	Soil Sample Collection Depth					

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APPENDIX G
SOIL BORING LOGS

Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-1 (MW-1)**
Location: NW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with minor gravel, Brown, Firm, Dry	3-3-3	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet	1-3-1	0.0	SS	
12.5' to 14' Silty clay with minor fine sand and gravel, Olive gray with minor gray vertical fractures, Firm, Dry	5-7-11	0.0	NS	
NOTE: Drilling was refused twice approximately 6 feet east prior to completion of this boring. Both attempts were abandoned with bentonite chip.				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-2 (MW-2)**
Location: West center fence line
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~6 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' 2.5' to 3' - Gravel up to 1.5", Loose, Dry 3' to 4' - Clayey silt with moderate gravel, Brown, Firm, Dry	4-5-4	0.0	NS	
7.5' to 9' Silty sand with moderate gravel, Gray, Soft, Wet (1 ft of recovery)	1-2-1	0.0	NS	
12.5' to 14' Medium to coarse sand, Olive gray, Loose, Wet (recovery limited due to excessive water in sample spoon)	11-15-17	0.0	SS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-3 (MW-3)**
Location: SW corner
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~7 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' No Recovery	7/11/27			
7.5' to 9' Clayey fine sand with minor gravel, Gray, Firm, Wet	0-0-1	0.0	NS	
12.5' to 14'	0-1-1	0.0	NS	
12.5' to 13' - Peat, Dark brown, Sticky, Firm, Wet				
13' to 14' - Clayey fine sand with shell fragments and minor gravel, Gray, Loose, Wet				

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-4 (MW-4)**
Location: SW corner of concrete pad of old forge building
Date Completed: 7/24/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~8 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Poor recovery. Some material in shoe. Silty clay with gravel, Light brown, Firm, Dry	2-3-3	0.0	NS	
7.5' to 9' Silty sand with minor gravel, Light brown, Loose, Wet (half of spoon recovery)	9-14-12	0.0	NS	
12.5' to 14' Silty clay with minor gravel, Brown with orange mottling, Hard, Moist to dry	10-14-15	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-5 (MW-5)**
Location: South center of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water: ~7.5 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Fine Sand with abundant gravel (to 3"), Brown, Firm, Dry	19-26-26	0.0	NS	
7.5' to 9' Silty fine to medium sand with moderate gravel (to 2"), Brown, Firm, Wet Silt layer at 8.5', dry Medium sand in shoe	13-20-26	0.0	NS	
12.5' to 14' Silty fine sand with minor gravel (to 1"), Gray, Firm, Slightly moist	20-41-23	0.0	NS	

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-6 (MW-6)**
Location: NE corner of site
Date Completed: 7/25/07

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Harold Cashman
First Encountered Water:
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
2.5' to 4' Silty clay with moderate gravel (to 3"), Brown, Firm, Dry	2-3-2	0.0	NS	
7.5' to 9' Silty sand with gravel, Brown, Loose, Wet Layer of organic material a 8' bgs (decomposed wood and soil layer)	1 for 18"	0.0	NS	
12.5' to 14' Silty clay with minor gravel (to 1"), Gray, Firm, Moist Changed to Brown, Hard, Dry at 13' bgs	4-11-14	0.0	NS	

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-7 (MW-7)**
Location: Near entrance to parking lot
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 9 ft
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Very coarse gravel fill. Brown, loose, moist. Pieces of brick noted.		0.0	NS	
5 - 6.5'	Sandy silt with gravel, gray, firm, moist	2.2.9	0.0	NS	
7.5 - 9'	Sandy silt with gravel, gray, firm, wet	4.4.6	0.0	NS	**X**
12.5 - 13.5'	Sandy silt with gravel, gray, firm, very wet	4.4.5			
13.5 - 14'	Clayey silt, gray, firm, moist		0.0	NS	
17.5 - 19'	Clayey silt, gray, firm, moist	5.7.12	0.0	NS	

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-8 (MW-8)**
Location: West of MW-1
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
5 - 7.5'	No recovery.	4.11.4			
7.5 - 8.5'	Sand, brown, loose, wet	3.5.4			
8.5 - 9'	Sandy gravel, brown, loose, wet		1.0	VSS	
12.5 - 14'	Little recovery. Wood debris present. Gravelly sand, dark brown, loose, wet	14.14.9	2.5	SS	**X**

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Boring Log

Project: 210 McKenzie Additional Wells
Client: City of Bellingham
Boring Number: **B-9 (MW-9)**
Location: Northwest of MW-2
Date Completed: 5-13-10

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: 5 ft.
Total Depth: 19 ft.

Depth/Description		Blow Count	PID (ppm)	Sheen	Sample
0 - 0.5'	Top soil				
0.5 - 5'	Gravel with brick pieces and wood debris. Pocket of water in hole at 4' with heavy to moderate sheen.				
5 - 6.5'	Silty sand with minor gravel, black, coarse, wet. Encountered metal debris.	4.6.4	0.4	SS	
7.5 - 9'	Sand, dark brown to black, loose, wet. Encountered brick.	4.6.9	0.9	SS	
12.5 - 14'	Gravelly sand, black with organics, loose, wet. Oil globules observed in sample.	7.15.11	6.0	HS (globules)	**X**

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-10 (MW-10)**
Location: Northwest of MW-7
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~13 ft
Total Depth: 15.5 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil				
0.8' - 3.5' Very gravelly sandy silt, brown, hard, moist - Some brick and metal railroad debris at 2 feet				
3.5' - 5' Fine sandy silt with minor gravel, brown, firm, moist				
5' - 6.5' Sandy silt, minor gravel, brown, loose, moist - Charcoal/organics at 6 feet	5-4-5	0.0	NS	
7.5' - 9' Poor recovery, pounded rock. Clayey silt with sand, minor gravel, brown, firm, moist	7-7-7	0.0	NS	
12.5' - 14 Silty clay, gray with orange mottling, plastic, slightly wet	3-3-4	0.0	NS	14'

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-11 (MW-11)**
Location: West of B-8
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.8' Topsoil/organic				
0.8' - 5' Cobbley and gravelly sandy clayey silt, brown, hard, moist				
- Gray material at 3 feet, associated with old soil horizon		0.0	SS	
- Red brick at 5 feet				
5' - 6.5' Gravelly sandy silt, dark gray, loose, moist	2-3-3	0.0	VSS	
7.5' - 8' Gravelly sandy silt, dark gray, loose, moist	3-4-4	0.0	VSS	
8' - 9' Sandy silt with gravel, gray, firm, moist		0.0	VSS	
12.5' - 14' Gravelly sand, gray, loose, wet	11-8-4	0.0	VSS	14'

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Boring Log

Project: 210 McKenzie Ave.
Client: City of Bellingham
Boring Number: **B-12 (MW-12)**
Location: Northeast of Admin. Building
Date Completed: 6/7/11

Sheet: 1 of 1
Drilled by: EDI - Tom Adams
Logged by: Thom Davis
First Encountered Water: ~9 ft
Total Depth: 15 ft

Depth/Description	Blow Count	PID (ppm)	Sheen	Sample
0' - 0.3' Asphalt				
0.3' - 0.7' Crushed rock/gravel				
0.7' - 5' Cobbley, gravelly sandy silt with clay (diamicton), brown, hard, moist.				
5.5' - 7.0' Very gravelly sandy silt, gray, hard, moist.	24-25-18	0.0	VSS	
7.5' - 9' Very gravelly sandy silt, gray, firm, moist to slightly wet.	4-8-14	0.0	VSS	
12.5' - 14 Very gravelly sandy silt, gray, firm, loose, wet.	1-1-2	0.0	VSS	14'

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Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: **MW-13**
Location: S Of Cypress Design at edge of grassy area
Date Completed: 10/28/2020

Sheet:
Drilled by: Bore-Tech
Logged by: Thom Davis - WES
Field Screened by: Thom Davis WES
First Encountered Water: 11.0 ft
Total Depth: 15 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
Surface	Grass and gravel				
2.5 to 4.0 ft.	Fine to medium sand, minor gravel, brown, firm, dry.	18-10-18	0.4	VSS	
	Gravel/cobbles at ~5.0 ft bgs				
7.5 to 9.0 ft.	Fine sandy gravelly silt with minor clay, brown, hard, moist.	13-27-29	1.2	VSS	8'-9'
	Gravel/cobbles at ~9.0 ft bgs and again at ~11.0 ft bgs				
12.5 to 14.0 ft.	Medium sand with gravel and silt, brown, firm, wet.	16-20-22	0.8	VSS	
	Soil Sample Collection Depth				

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Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: **MW-14**
Location: West of eastern most building on North side of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: Thom - WES
Field Screened by: Thom Davis WES
First Encountered Water: None
Total Depth: 15 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
Surface	~3 inches of asphalt				
0.25 to 1.5 ft.	Sandy gravel, brown, loose, moist.		0.0	NS	
1.5 to 12.0 ft.	Silty sandy clay with gravel, brown, hard, moist.		0.0	NS	
12.0 to 15.0 ft.	Sandy clay, brown, hard, moist.		0.0	NS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-1-20
Location: S Of Cypress Design at edge of grassy area
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~7.5 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 10 ft	Brown silty fine to medium sand with gravel				
	(dense, moist) (fill)	2.5-4.0 ft	0.0	VSS	
		5.0-6.5 ft	0.0	VSS	
		7.5-9.0 ft	0.0	VSS	
10 ft to 15 ft	Brown silty fine to medium sand with gravel	10.0-11.5 ft	0.0	VSS	
	(dense, wet) (glaciomarine drift)				
15 ft to 20 ft	Brown silty fine to medium sand with gravel	15.0-16.5 ft	0.0	NS	
	(medium dense, wet)				
20 ft to 30 ft	Gray silty fine to medium sand to silt with occasional	20.0-21.5 ft	0.0	NS	
	gravel (dense, wet) (glacially consolidated soils)	5.0-26.5 ft	0.0	NS	
		27.5-29.0 ft	4.5	SS	28.5'
30 ft to 40 ft	Gray silty fine to medium sand to silt with occasional	30.0-31.5 ft	3.5	VSS	
	gravel (becomes vey dense)				
		35.0-36.5 ft	8.7	SS	35.5'
40 ft to 45 ft	Gray silty fine to medium sand to silt with occasional	40.0-41.5 ft	0.0	VSS	
45 ft to 51.5 ft	Gray silty fine to medium sand to silt with gravel	45.0-46.5 ft	0.0	VSS	
		50.0-51.5 ft	0.0	NS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-2-20
Location: S edge of property near driveway from WWTP
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~20 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 7.5 ft	Brown silty fine to medium sand with gravel	2.5-4.0 ft	0.8	VSS	4'
	(medium dense, moist) (fill)	5.0-6.5 ft	0.0	SS	
7.5 ft to 10 ft	Gray silty sand with gravel (medium dense, moist)	7.5-9.0 ft	0.0	SS	9'
	(glaciomarine drift)				
10 ft to 15.5 ft	Gray silty sand with gravel (becomes denser, moist);	10.0-11.5 ft	0.0	VSS	
	increased silt content				
15.5 ft to 17 ft	Gray silt and sand with gravel (very dense/hard,	15.0-16.5 ft	0.0	VSS	
	moist)				
17 ft to 20 ft	Brown silty clay with occasional gravel (dense, wet)				
20 ft to 26 ft	Gray silty sand with occasional gravel (dense, wet)	20.0-21.5 ft	0.0	NS	
	(glacially consolidated soil)	25.0-26.5 ft	0.0	NS	
26 ft to 28 ft	Gray-brown silty sand (dense, wet)				
28 ft to 30 ft	Gray silty sand with occasional gravel (dense, wet)	27.5-29.0 ft	0.0	NS	
30 ft to 33 ft	Gray silty sand with occasional gravel (medium dense,	30.0-31.5 ft	0.0	NS	
	wet)				
33 ft to 45.5 ft	Gray silty sand with occasional gravel (very dense,	32.5-34.0 ft	0.0	NS	
		40.0-41.5 ft	0.0	NS	
45.5 ft to 50.5 ft	Gray silty sand with gravel	45.0-46.5 ft	0.0	NS	
	(becomes dense, moist)				
50.5 ft to 51.5 ft	Gray silty sand with gravel (becomes very dense)	50.0-51.5 ft	0.0	NS	
	Soil Sample Collection Depth				

WHATCOM ENVIRONMENTAL SERVICES INC.

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-3-20
Location: Near the SW corner of 210 McKenzie fence/NE of MW-3
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~5.0 ft
Total Depth: 51.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface to 5 ft	Brown clayey fine to medium sand with silt and occasional gravel (loose, moist) (fill)	2.5-4.0 ft	0.0	SS	
	Brick debris observed				
5 ft to 7 ft	Becomes very loose, with bricks, debris and decomposed organic matter, wet	5.0-6.5 ft	0.0	VSS	
	Brick/paint chip/woody debris observed				
7 ft to 10 ft	Brown fine to medium sand with silt (very loose, wet)				
	Poor recovery - limited sample - very wet	7.5-9.0 ft	2.1	HS	
	Black oil globules observed				
10 ft to 15 ft	Same as above, loose, with motor oil	10.0-11.5 ft	2.9	HS	
	Black oil globules observed	12.5-14.0 ft	3.4	HS	12.5'
	Poor recovery- very wet, black oil globules observed				
15 ft to 20 ft	Gray clay (very stiff, wet) (glaciomarine drift)	15.0-16.5 ft	3.1	MS	
	Poor recovery- oily water and metal debris	17.5-19.0 ft	2.4	VSS	19'
20 ft to 28 ft	Same as above (medium stiff to stiff, wet)	20.0-21.5 ft			
		25.0-26.5 ft	1.9	SS	
28 ft to 31 ft	Same as above (very stiff, wet, with occasional gravel)				
	Heavy sheen likely due to upper PCS and water migration	27.5-29.0 ft	1.7	HS	
	Heavy sheen on outer clay surface due to upper contamination	30.0-31.5 ft	1.8	HS	
31 ft to 40 ft	Gray silty fine to medium sand with gravel (very dense, wet) (glacially consolidated soil)	32.5-34.0 ft	1.8	SS	
		35.0-36.5 ft	1.3	SS	
40 ft to 51.5 ft	Gray silty fine to medium sand with gravel (very dense, wet), becomes brown	40.0-41.5 ft	0.0	NS	
		45.0-46.5 ft	0.0	SS	
		50.0-51.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-4-20
Location: Outside fence at NW corner of site
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~8 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
0 ft to 5 ft	Brown silty fine to medium sand with occasional gravel (medium dense, moist) (fill)	2.5-4.0 ft	1.2	VSS	
5 ft to 12.5 ft	Increased gravel content, decreased silt content				
	Moist to slightly wet	5 ft	25.8	SS	5'
	Moist to slightly wet	7.5-9.0 ft	8'	2.7	VSS
	Wet	10 ft	3.9	VSS	10'
12.5 ft to 18 ft	Gray silty fine to medium sand with gravel	12.5-14.0 ft	0.0	VSS	
	(very dense, wet) (glacially consolidated soil)	15.0-16.5 ft	0.0	VSS	
18 ft to 20 ft	Trace clay	17.5-19.0 ft	0.0	VSS	
20 ft to 30 ft	Gray silty fine to medium sand with gravel	20.0-21.5 ft	0.0	VSS	
	(dense, wet)	25.0-26.5 ft	0.0	VSS	
30 ft to 31.5 ft	Same as above, becomes very dense	30.0-31.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-5-20
Location: Near center of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~10 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
	3 inches cement concrete				
0.25 t to 5 ft	Brown silty fine to medium sand with gravel (dense,				
	moist) (fill)				
	Cobble in shoe - poor recovery	2.5-4.0 ft	0.5	VSS	
	Driller noted somewhat cobbly at ~4 ft bgs				
5 ft to 10 ft	Same as above with occasional cobbles	5.0-6.5 ft	0.0	VSS	
	Poor Recovery - rocky				
	Driller noted somewhat cobbly at ~6 ft and ~7 ft bgs	7.5-9.0 ft	2.5	VSS	9'
10 ft to 15 ft	Same as above, becomes wet	10.0-11.5 ft	1.9	VSS	11.5'
		12.5-14.0 ft	0.0	VSS	
15 ft to 18 ft	Gray silty fine to medium sand with gravel (very	15.0-16.5 ft	0.0	VSS	
	dense, wet) (glacialy consolidated soil)				
		17.5-19.0 ft	0.0	VSS	
18 ft to 20 ft	Trace clay, decreased gravel content				
20 ft to 25 ft	Same as above, become dense	20.0-21.5 ft	0.0	NS	
25 ft to 30 ft	Same as above, becomes gray	25.0-26.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-6-20
Location: West of eastern most building on North side of property
Date Completed: 10/29/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~157.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~2 inches of asphalt				
	~ 1.5 ft of sandy gravel below asphalt		0.0	VSS	
0.5 ft t 5 ft	Brown sandy clay with occasional gravel	2.5-4.0 ft	0.0	VSS	
	(very stiff, moist) (fill)				
5 ft to 8 ft	Brown clayey sand with occasional gravel	5.0-6.5 ft	0.0	NS	
	(loose, moist) (glaciomarine drift)	7.5-9.0 ft	0.0	NS	9'
8 ft to 10 ft	Same as above, with occasional cobbles				
10 ft to 12.5 ft	Same as above, without occasional cobbles	10.0-11.5 ft	0.0	NS	11.5'
12.5 ft to 15 ft	Brown silty sand with gravel (very dense, moist)	12.5-14.0 ft	0.0	NS	
15 ft to 17.5 ft	Brown silt with occasional gravel (very stiff, wet)	15.0-16.5 ft	0.0	VSS	
17.5 ft to 20 ft	Gray sandy silt with clay and occasional gravel	17.5-19.0 ft	0.0	VSS	
	(very stiff, wet)				
	Driller noted cobbles at ~19 ft bgs				
20 ft to 25 ft	Brown silty fine to medium sand with gravel (dense	20.0-21.5 ft	0.0	VSS	
	to very dense, wet) (glacially consolidated soil)				
25 ft to 30 ft	Same as above, becomes medium dense	25.0-26.5 ft	0.0	VSS	
30 ft to 31.5 ft	Same as above, becomes dense	30.0-31.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-7-20
Location: Near the center of the west side of the property
Date Completed: 10/28/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~6.5 ft
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Gravel				
0 ft to 5 ft	Brown-gray fine to medium silty sand with gravel, trace clay (very loose, moist) (fill)	2.5-4.0 ft	0.0	VSS	
5 ft to 8 ft	Brown silty clay with gravel (soft, wet)	5.0-6.5 ft	0.0	VSS	
8 ft to 10 ft	Same as above, becomes gray	7.5-9.0 ft	0.0	VSS	
10 ft to 12.5 ft	Brown organic matter with peat (soft, wet)	10.0-11.5 ft	0.0	NS	
12.5 to 15 ft	Brown gravel with sand, silt and clay (loose, wet)	12.5-14.0 ft	0.0	VSS	13'
15 ft to 18 ft	Gray clay (medium stiff, wet) (glaciomarine drift)	15.0-16.5 ft	0.0	NS	
18 ft to 25 ft	Same as above, becomes stiff	17.5-19.0 ft	0.0	VSS	19'
		20.0-21.5 ft	0.0	VSS	
25 ft to 26.5 ft	Same as above, with occasional gravel	25.0-26.5 ft	0.0	VSS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-8-20
Location: In asphalt at center of east side of property
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: None
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	3 inches of asphalt concrete pavement				
0.25 ft to 5 ft	Brown clayey silt with occasional gravel (medium stiff, moist) (fill)	2.5-4.0 ft	0.0	NS	
5 ft to 10 ft	Brown clay with occasional gravel (stiff, moist) (glaciomarine drift)	5.0-6.5 ft	0.3	NS	5'
		7.5-9.0 ft	1.4	NS	9'
10 ft to 15 ft	Brown clayey silt (very stiff, moist)	10.0-11.5 ft	0.0	NS	
		12.5-14.0 ft	0.0	NS	
15 ft to 16.5 ft	Same as above, increased moisture content	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-9-20
Location: Inside WWTP at SW corner of property
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~7 ft
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Grass				
	6 inches sod				
0.5 ft to 5 ft	Dark gray silty fine to medium sand (medium dense, moist) (fill)	2.5-4.0 ft	0.0	NS	
5 ft to 7 ft	Same as above, becomes very loose	5.0-6.5 ft	0.0	NS	
7 ft to 10 ft	Dark gray silt with sand (very soft, wet)	7.5-9.0 ft	1.7	VSS	7.5'
10 ft to 15 ft	Black silt with organic matter (very soft to medium stiff, moist)	10.0-11.5 ft 12.5-14.0 ft	0.3 0.0	SS NS	10'
15 ft to 16.5 ft	Gray clayey silt (medium stiff, wet) (glaciomarine drift)	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				
	*Additional XRF readings available in Table 2				

WHATCOM ENVIRONMENTAL SERVICES INC.

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-10-20
Location: Inside WWTP at NE corner near electrical transformer
Date Completed: 10/27/2020

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Thom Davis WES
First Encountered Water: ~10 ft
Total Depth: 16.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Grass				
	4 inches sod				
0.33 ft to 8 ft	Brown fine to medium sand with gravel (dense, moist) (fill)	2.5-4.0 ft	0.0	NS	
		5.0-6.5 ft	2.7	SS	5'
8 ft to 10 ft	Same as above, with occasional silt	7.5-9.0 ft	0.0	NS	
10 ft to 13 ft	Brown silty fine to medium sand with gravel	10.0-11.5 ft	2.0	NS	11.5'
	(dense, wet) (glacially consolidated soil)				
13 ft to 15 ft	Same as above, with decreased gravel content	12.5-14.0 ft	0.0	NS	
15 ft to 16.5 ft	Same as above, without gravel, becomes gray	15.0-16.5 ft	0.0	NS	
	Soil Sample Collection Depth				

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Hollow Stem Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: Piezometer P-1
Location: Near former Trench #7 in landfill area
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: Ashley Yamaura
First Encountered Water: ~7.5 ft
Total Depth: 10.0 ft

Depth	Description	Blow Count	PID (ppm)	Sheen	Sample
		Standard Split Spoon Sampler			
1.5-3 ft	No recovery, parking lot gravel 0-3"	10-8-8	-	-	-
3.0-4.5 ft	Silty sand with gravel, brown, loose, moist	6-5-5	0.7	NS	
4.5-6.0 ft	Silty sand with gravel, brown, loose, moist	5-5-5	0.6	NS	
6.0-7.5 ft	Silty gravelly sand, brown, loose, moist	4-3-3	0.4	NS	
7.5-9.0 ft	Silty sand with gravel, gray, loose, wet (poor recovery - large rock in shoe)	5-4-4		NS	
9.0-10.0 ft	Silty sand with gravel, gray, loose, wet	4-3-3		NS	
	Note: Abundant debris in drill cuttings, including large metal chain links, brick fragments, and black chunks of ore/slag.				
	Soil Sample Collection Depth (Composite sample over entire boring depth)				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-1-21
Location: In between the west side of the WWTP and the trail.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field screened by: Ashley Yamaura (WES)
First Encountered Water: ~7.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	Thin sod layer				
1.5 - 7.5 ft	Brown fine to medium silty sand with occasional gravel,	2.5-5 ft	-	-	
	loose, moist (fill)	5-7.5 ft	3.3	NS	
7.5 - 10.5 ft	Brown fine to medium silty sand with occasional gravel,	7.5-10 ft	0.1	NS	
	medium dense, wet				
10.5 - 12.5 ft	Brown fine to medium silty sand with occasional gravel and	10-12.5 ft	0.1	NS	
	trace shells, medium dense, wet				
12.5 - 18 ft	Gray fine to medium sand with gravel and trace shells, loose,	12.5-15 ft	0.1	NS	
	wet (beach deposits)	15-17.5 ft	0.0	NS	
18 - 20 ft	Gray fine to medium silty sand with gravel and trace shells,	17.5-20 ft	0.0	NS	
	loose, wet (beach deposits)				
20 - 25 ft	Gray clay with occasional gravel, soft, wet (glaciomarine	20-25 ft	0.0	NS	
	drift)				
25 - 30 ft	Gray plastic clay with occasional gravel, stiff, wet	25-26.5 ft	0.0	NS	
30 - 31.5 ft	Gray plastic clay with occasional gravel, medium stiff, wet	26.5-30 ft	0.0	NS	
	Note: Screening depth of 2.5-5 ft had no recovery.				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-2-21
Location: North of the Administration building in the parking lot.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	4 inches of asphalt concrete pavement				
1.5 - 8.5 ft	Brown fine to medium silty sand with gravel and trace clay,	2.5-5 ft	-	-	
	medium dense, moist (fill)	5-7.5 ft	1.1	NS	5-7.5 ft
		7.5-10 ft	0.4	NS	
8.5 - 12.5 ft	Brown silty fine to medium sand with occasional gravel and	10-12.5 ft	0.3	NS	
	trace clay, medium dense, moist				
12.5 - 14.5 ft	Gray silty sand with gravel and trace clay and shells, medium	12.5-15ft	0.0	NS	
	dense, wet (beach deposits)				
14.5 - 17 ft	Gray fine to coarse sand with gravel and trace silty, loose,	15-17.5 ft	0.0	NS	
	wet				
17 - 20 ft	Gray silty fine to medium sand with occasional gravel, loose,	17.5-20 ft	0.2	NS	
	wet				
20 - 26.5 ft	Gray clay with occasional gravel, stiff, wet (glaciomarine	20-25 ft	0.0	NS	
	drift)				
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-3-21
Location: In the SE corner of the parking area in between the Solids Handling Facility and the Administration building.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5 ft
Total Depth: 26.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~ 4 inches of asphalt concrete pavement				
1.5 - 4.5 ft	Brown silty sand with occasional gravel, medium dense, moist (fill)	2.5-5 ft	0.2	NS	
4.5 - 7.5 ft	Gray silty sand with occasional gravel, medium dense, moist	5-7.5 ft	0.8	NS	
7.5 - 10 ft	Gray silty sand with occasional gravel and decomposed piece ofwood, medium dense, moist)	7.5-10 ft	2.5	NS	7.5-10 ft
10 - 12.5 ft	Gray medium to coarse silty sand with gravel and shells, loose, moist (beach deposits)	10-12.5 ft	0.4	NS	
12.5 - 15 ft	Gray medium to coarse silty sand with gravel, loose, moist	12.5-15 ft	0.2	NS	
15 - 18 ft	Gray gravel with shells and occasional sand, loose, moist	15-17.5 ft	0.2	NS	
18 - 26.5 ft	Gray clay with silt and occasional gravel, medium stiff, wet (glaciomarine drift)	17.5-20 ft 20-25 ft	0.0 0.0	NS NS	
	Soil Sample Collection Depth				

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Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-4-21
Location: On the east side of the WWTP between the fence and the trail.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES
First Encountered Water: ~12.5 ft
Total Depth: 31.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
0 - 7 ft	Brown silty sand with gravel and occasional cobbles, very dense, moist (fill)	2.5-5 ft	4.3	NS	
		5-7.5 ft	3.4	NS	
7 - 15.5 ft	Gray/brown silty fine to medium sand with gravel and occasional cobbles, very dense, moist (glacially consolidated soils)	7.5-10 ft	1.2	NS	
		10-12.5 ft	-	-	
		12.5-15 ft	0.3	NS	
15.5 - 16.5 ft	Gray/brown silty fine to medium sand and occasional gravel and cobbles, very dense, moist (glacially consolidated soils)	15-17.5 ft	0.2	NS	
16.5 - 30 ft	Gray fine to medium silty sand with occasional gravel, medium dense, wet	17.5-20 ft	0.2	NS	
		20-25 ft	0.2	NS	
		25-30 ft	0.2	NS	
30 - 31.5 ft	Gray fine to medium silty sand with occasional gravel, very dense, wet	30-31.5	0.3	NS	

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-5-21
Location: To the west of the maintenance shop.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES)
First Encountered Water: ~10 ft
Total Depth: 21.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
0 - 7.5 ft	Brown silty sand with gravel, very dense, moist (fill)	0.2-5 ft	0.8	NS	
		5-7.5 ft	0.8	NS	
7.5 - 10.5 ft	Brown silty fine to medium sand with gravel, very dense,	7.5-10 ft	0.3	NS	
	moist (glacially consolidated soils)				
10.5 - 21.5 ft	Brown silty fine to medium sand with gravel, very dense,	10-12.5 ft	1.4	NS	
	wet (glacially consolidated soils)	12.5-15 ft	0.3	NS	
		15-17.5 ft	0.5	NS	
		17.5-20 ft	0.3	NS	
		20-21.5 ft	0.3	NS	

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NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

Soil Screening/Boring Log

Project: Brown & Caldwell Post Point Phase III - 210 McKenzie Ave
Client: City of Bellingham
Boring Number: B-6-21
Location: To the south of the maintenance shop.
Date Completed: 7/8/21

Sheet: 1 of 1
Drilled by: Bore-Tech
Logged by: GeoEngineers
Field Screened by: Ashley Yamaura (WES)
First Encountered Water: ~15 ft
Total Depth: 21.5 ft

Depth	Description	Screening Depth	PID (ppm)	Sheen	Sample
Surface	~ 4 inches of concrete/gravel				
1.5 - 9.5 ft	Brown silty clay, stiff, moist (glaciomarine drift)	2.5-5 ft	0.1	NS	
		5-7.5 ft	0.1	NS	
		7.5-10 ft	0.1	NS	
9.5 - 21.5 ft	Gray/brown silty sand with gravel, very dense, moist	10-11 ft	0.1	VSS	
	(glacially consolidated soils)	11-12.5 ft	0.1	VSS	
		12.5-15 ft	0.1	VSS	
		15-17.5 ft	0.3	NS	
		17.5-20 ft	0.3	VSS	
		20-21.5 ft	0.3	VSS	

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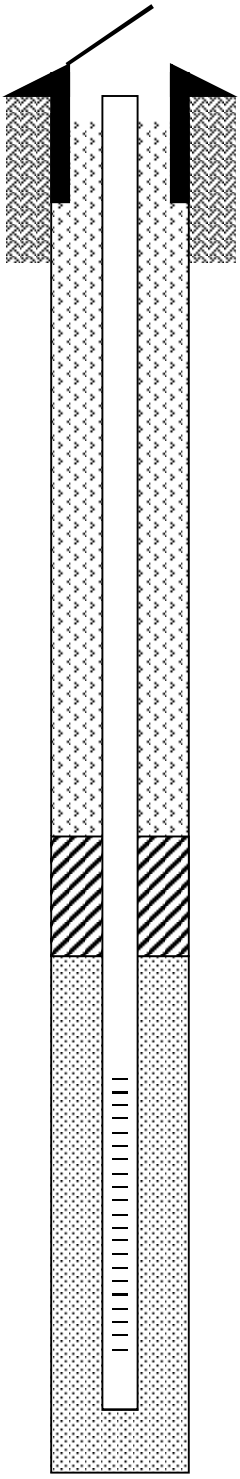
NS = No Sheen; VSS = Very Slight Sheen; SS = Slight Sheen; MS = Moderate Sheen; HS = Heavy Sheen

APPENDIX H
WELL CONSTRUCTION DIAGRAMS

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

15.0'

15.25'

15.25'

Not to Scale

Elevations (feet): Top of Casing: 17.12'
Mean Sea Level (MSL) Ground Elevation: 17.68'

Coordinates: 631518.23 E 1234796.67 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.71'	15.41'	6.70	0.625

Comments:

Project: 210 McKenzie Ave.

Location: NW corner of Property

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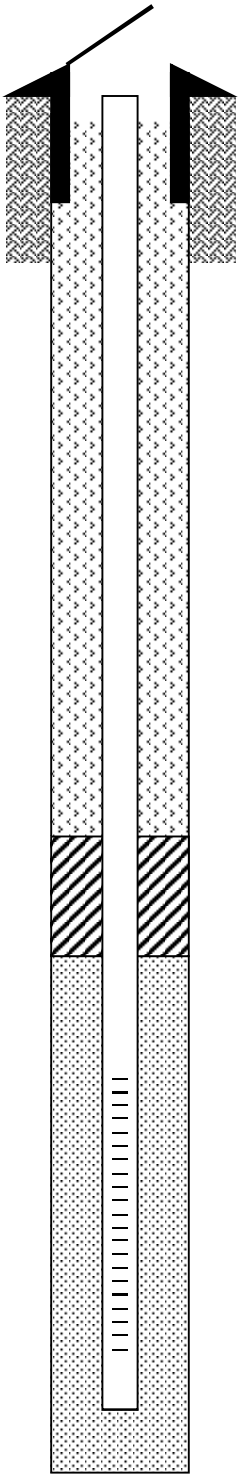
MW - 1 APQ984

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Not to Scale

Elevations (feet): Top of Casing: 16.85'
Mean Sea Level (MSL) Ground Elevation: 17.42'

Coordinates: 631435.28 E 1234795.47 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.39'	15.46'	8.91	0.512

Comments: Globules of black oil observed in cuttings and on water emenating from boring during drilling of well. Sheen observed on purge water in bucket when well was developed.

Project: 210 McKenzie Ave.

Location: Center of western fence line

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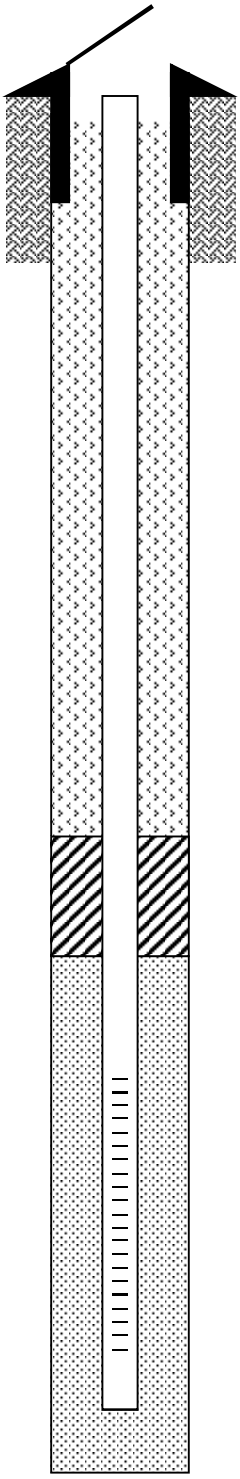
MW - 2 APQ985

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.67'

15.0'

15.5'

Not to Scale

Elevations (feet): Top of Casing: 15.74'
Mean Sea Level (MSL) Ground Elevation: 16.16'

Coordinates: 631303.92 E 1234794.26 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	0.45'	15.29'	9.02	0.449

Comments:

Project: 210 McKenzie Ave.

Location: SW corner of property

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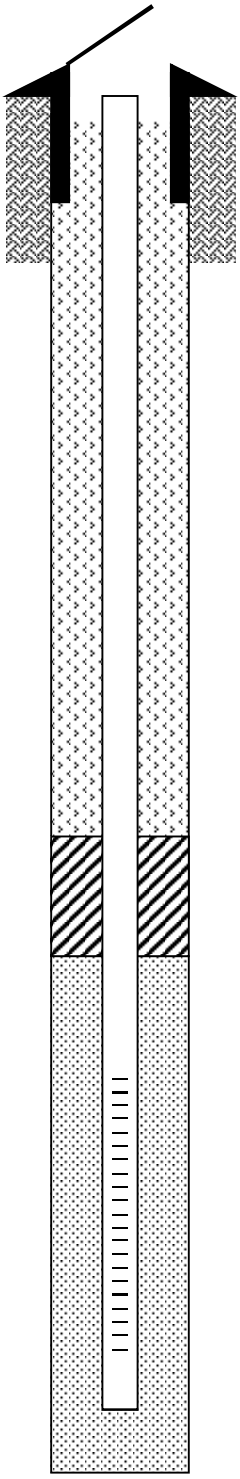
MW - 3 APQ986

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.75'

14.75'

15.0'

Not to Scale

Elevations (feet): Top of Casing: N/A
Mean Sea Level (MSL) Ground Elevation: N/A

Coordinates: N/A N/A

Coordinate System: N/A

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	N/A	N/A	N/A	N/A

Comments:

Project: 210 McKenzie Ave.

Location: In concrete slab of old forge building

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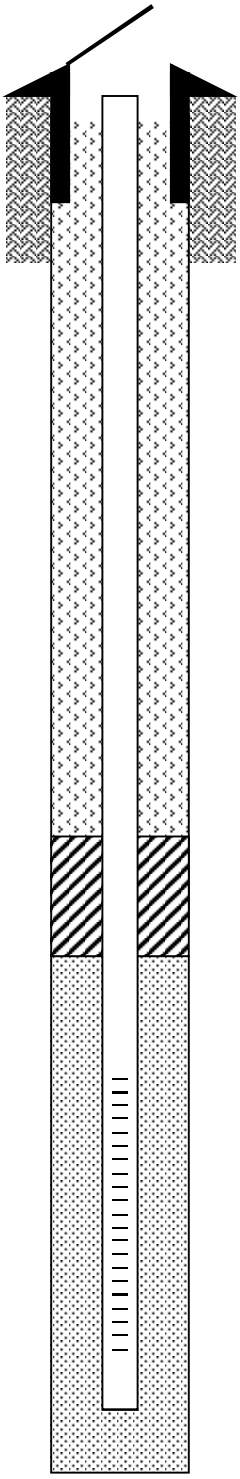
MW - 4 APQ987

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.58'

15.0'

15.5'

Not to Scale

Elevations (feet): Top of Casing: N/A
Mean Sea Level (MSL) Ground Elevation: N/A

Coordinates: N/A N/A

Coordinate System: N/A

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/25/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	N/A	N/A	N/A	N/A

Comments: Bailed dry after 5 gallons when well was developed.

Project: 210 McKenzie Ave.

Location: Center of south side of property

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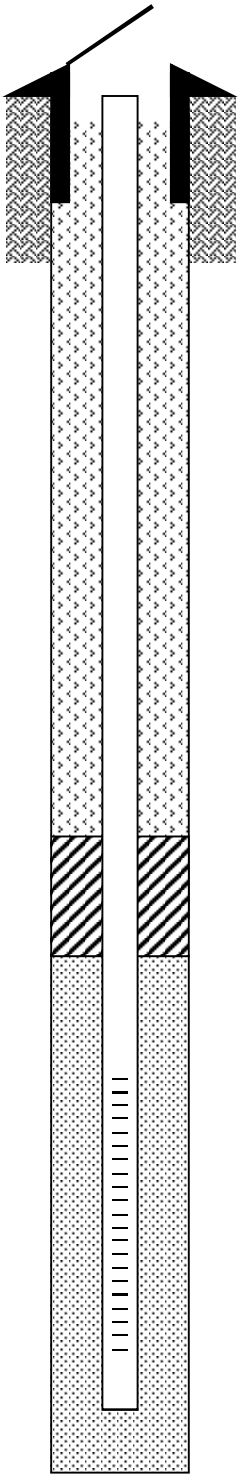
(360) 752-9571

MW - 5 APQ988

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

5.0'

14.83'

15.0'

15.0'

Not to Scale

Elevations (feet): Top of Casing: 19.40'
Mean Sea Level (MSL) Ground Elevation: 19.98'

Coordinates: 631534.58 E 1235215.82 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Harold Cashman

Completion Date: 7/24/07

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	0.79'	18.61'	6.14	0.176

Comments: Bailed dry after 15 gallons when well was developed.

Project: 210 McKenzie Ave.

Location: NE corner of property

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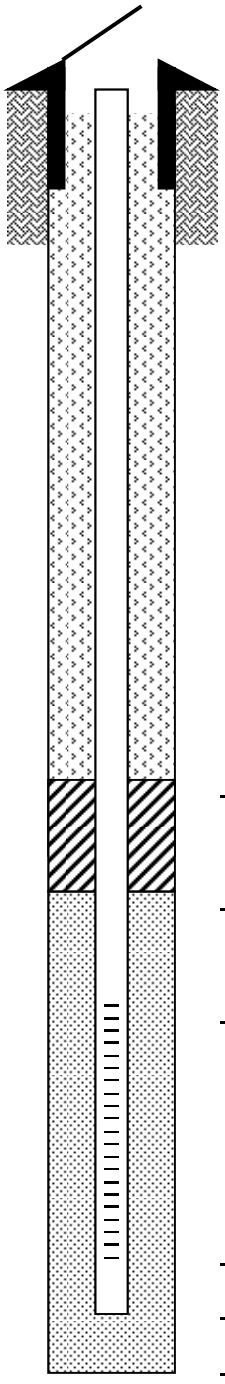
MW - 6 APQ989

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

2.58'

4.67'

7.58'

17.58'

18.0'

19.0'

Not to Scale

Elevations (feet): Top of Casing: 17.69'
Mean Sea Level (MSL) Ground Elevation: 17.94'

Coordinates: 631556.98 E 1234743.12 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.26'	8.43'	8.00	0.66

Comments:

Project: 210 McKenzie Additional Wells

Location: Post Point parking lot entrance

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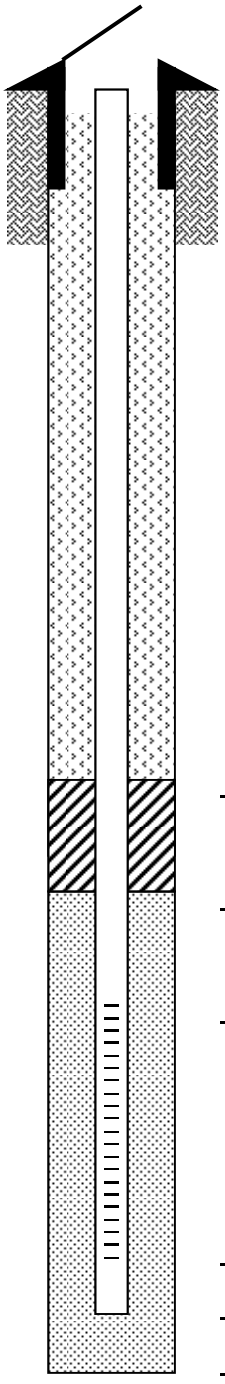
MW-7

Ecology Well ID: **BBA-940**

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4.83'

14.83'

15.33'

15.33'

Not to Scale

Elevations (feet): Top of Casing: 17.55'
Mean Sea Level (MSL) Ground Elevation: 17.84'

Coordinates: 631524.80 E 1234758.38 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	2.11'	15.44'	6.50	0.364

Comments:

Project: 210 McKenzie Additional Wells

Location: West of MW-1

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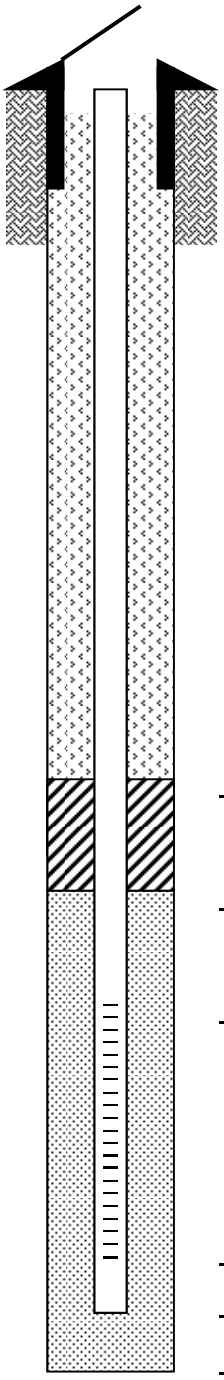
MW-8

Ecology Well ID: **BBA-941**

Well Design Specifications



Depths in Feet Below Ground Surface

0.83'

1.83'

4.83'

15.17'

15.17'

15.17'

Not to Scale

Elevations (feet): Top of Casing: 17.01'
Mean Sea Level (MSL) Ground Elevation: 17.35'

Coordinates: 631462.71 E 1234758.44 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Schedule 40 PVC

Casing Diameter: 2"

Screen Slot: 0.001

Screen Style: Machine Slot

Sand Pack: 10/20 Silica

Bentonite Seal: Medium chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: B-61

Drilled by: EDI - Tom Adams

Logged by: Thomas Davis

Completion Date: 5/13/2010

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.57'	15.44'	8.75	0.343

Comments:

Project: 210 McKenzie Additional Wells

Location: Northwest of MW-2

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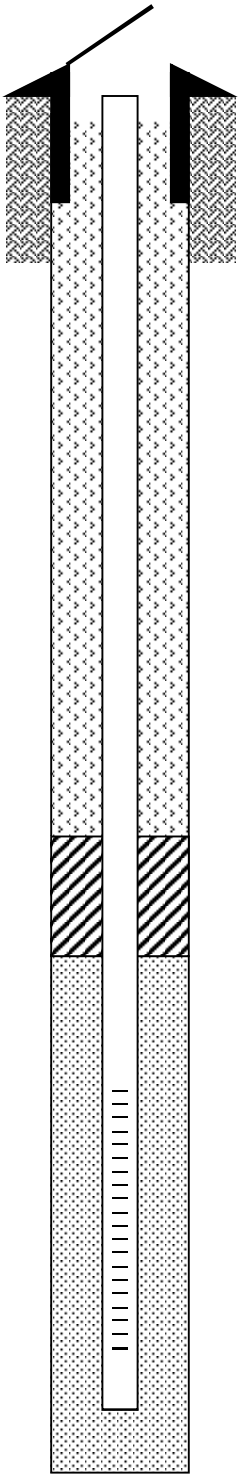
MW-9

Ecology Well ID: **BBA-942**

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

3.0'

5'2"

15'2"

15'6"

15'6"

Elevations (feet): Top of Casing: ~~19.41'~~ 17.56'
Mean Sea Level (MSL) Ground Elevation: 17.91'

Coordinates: 631605.69 E 1234720.42 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.96'	7.60	6.12	0.342

Comments:

Project: 210 McKenzie Ave. Add Wells

Location: NW corner of Property

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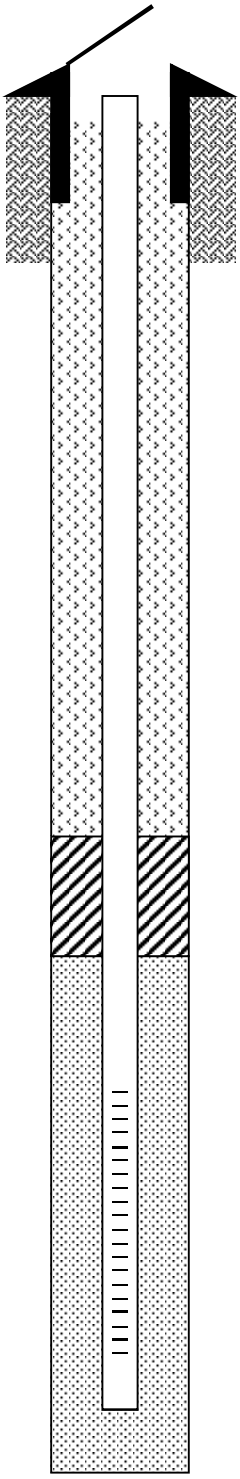
(360) 752-9571

MW - 10 BCB-744

210 McKenzie Avenue

Well Design Specifications



Not to Scale

Depths in Feet Below Ground Surface

1.0'

2.0'

4'7"

14'11"

14'11"

14'11"

Elevations (feet): Top of Casing: ~~19.18'~~ 17.34'
Mean Sea Level (MSL) Ground Elevation: 17.59'

Coordinates: 631537.43 E 1234699.13 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	9.17'	8.17'	6.70	0.69

Comments: Heaving sands set well higher than 15'

Project: 210 McKenzie Ave. Add Wells

Location: West of MW-8

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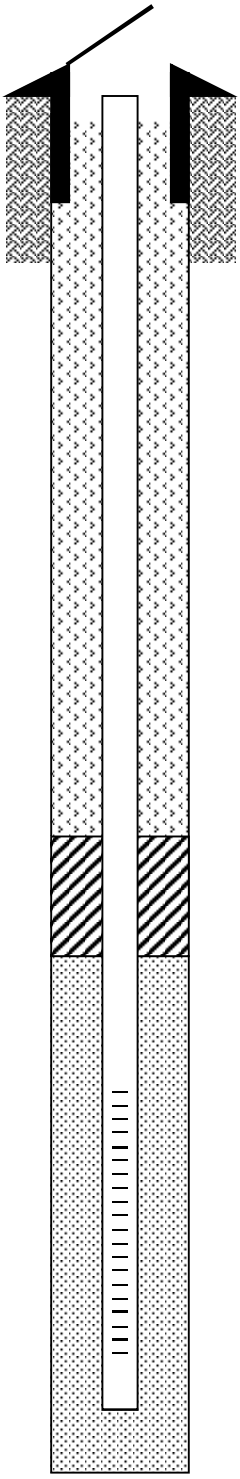
MW - 11 BCB-745

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

1.0'

2.0'

4'8"

14'8"

15'

15'

Not to Scale

Elevations (feet): Top of Casing: ~~17.49'~~ 15.64'
Mean Sea Level (MSL) Ground Elevation: 16.28'

Coordinates: 631468.50 E 1234700.72 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: Sched. 40 PVC

Casing Diameter: 2"

Screen Slot: 0.010

Screen Style: Machine Slot

Sand Pack: Colorado Silica Sand 10/20

Bentonite Seal: Pure gold medium Bentonite chip

Grout Type: **Weight:**

Bore Hole Diameter: 8"

Drill Rig: Mobile Drill B-61

Drilled by: Tom Adams - EDI

Logged by: Thom Davis

Completion Date: 6/7/11

Date of Measurement	D-T-W (ft)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	7.62'	8.02'	6.64	0.177

Comments:

Project: 210 McKenzie Ave. Add Wells

Location: Handicap parking spot by admin. building

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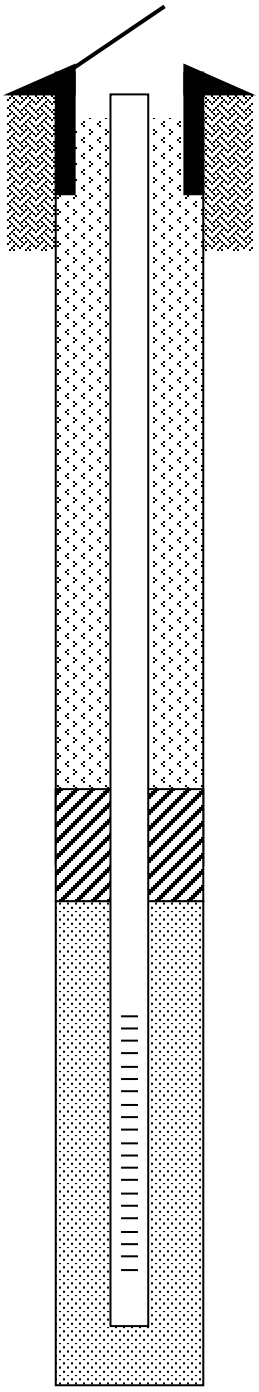
MW - 12 BCB-746

210 McKenzie Avenue

Well Design Specifications



Depths in Feet Below Ground Surface

2'

4'

5'

14.5'

15'

15'

Not to Scale

Elevations (feet): Top of Casing: 22.12'
Mean Sea Level (MSL) Ground Elevation: 22.44'

Coordinates: 631359.62 E 1235073.07 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 2/12 Gillibrand

Bentonite Seal: Pure Gold Cetco

Grout Type: Medium Chip **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow-Stem

Drilled by: BoreTech

Logged by: Thom Davis WES

Completion Date: 10/28/2020

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	1.32	20.8	6.74	0.527

Comments:

Project: 210 McKenzie Ave

Location: Central portion of property

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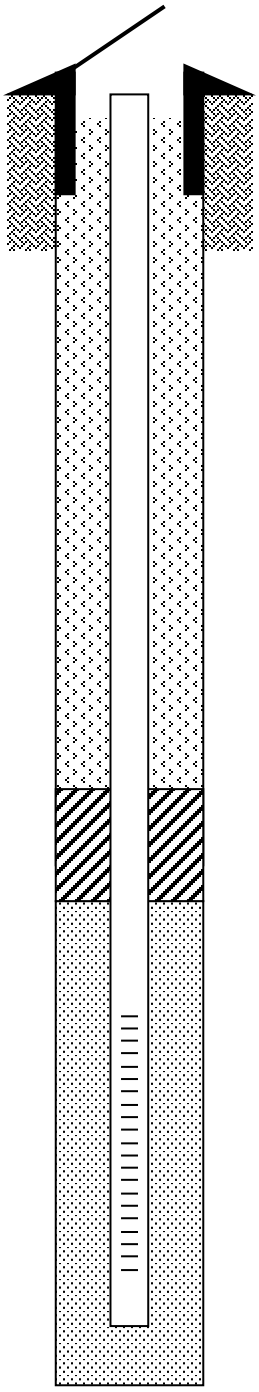
MW-13

Ecology Well ID:
BJI-142

Well Design Specifications



Depths in Feet Below Ground Surface

2'

4'

5'

14.5'

15'

15'

Not to Scale

Elevations (feet): Top of Casing: 19.71'
Mean Sea Level (MSL) Ground Elevation: 20.01'

Coordinates: 631547.35 E 1235095.09 N

Coordinate System: HORIZ: NAD 83/98 & VERT: NAVD 88

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 2/12 Gillibrand

Bentonite Seal: Pure Gold Cetco

Grout Type: Medium Chip **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow Stem

Drilled by: Bore Tech

Logged by: Geo Engineers

Completion Date: 10/29/2020

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
11/18/2020	3.6	16.11	7.64	0.311

Comments:

Project: 210 McKenzie Ave

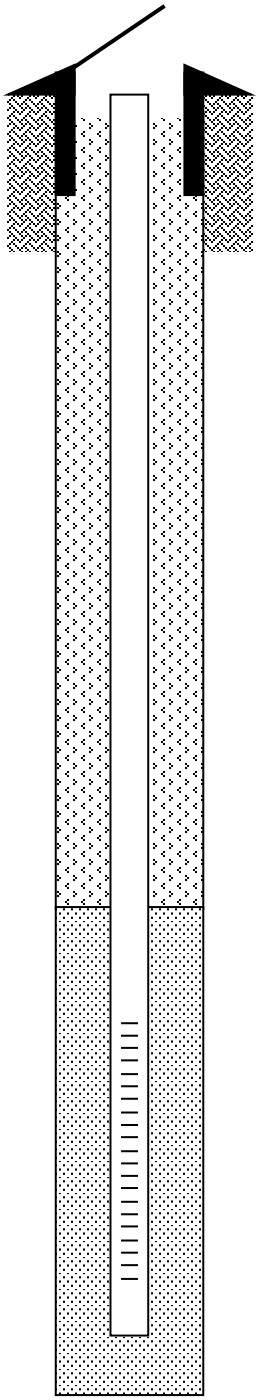
Location: North edge of property

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

MW-14

Ecology Well ID:
BJI-143

Well Design Specifications



Depths in Feet Below Ground Surface

16"

2'

9'8"

10'

10'

Not to Scale

Elevations (feet): Top of Casing: Not Surveyed
Mean Sea Level (MSL) Ground Elevation: Not Surveyed

Coordinates: Not Surveyed

Coordinate System: Not Surveyed

Type of Casing: PVC

Casing Diameter: 2 inch

Screen Slot: 0.01 inch

Screen Style: Machine Cut

Sand Pack: 12/20 Gillibrand

Bentonite Seal: None

Grout Type: Concrete **Weight:**

Bore Hole Diameter: 8 inch

Drill Rig: Excavator Mounted Hollow Stem EC-95

Drilled by: Bore Tech

Logged by: Harold Cashman

Completion Date: 7/8/2021

Date of Measurement	D-T-W (ft. bgs)	Water Level (ft. MSL)	Field pH	Field EC (mS/cm)
7/13/2021	5.31	--	--	--
7/21/2021	5.44	--	--	--

Comments: No LNAPL observed on 7/13/21, 7/21/21, or 9/23/21.

Project: 210 McKenzie Ave

Location: Landfill Area

Whatcom Environmental Services
228 East Champion Street #101
Bellingham, WA 98225
(360) 752-9571

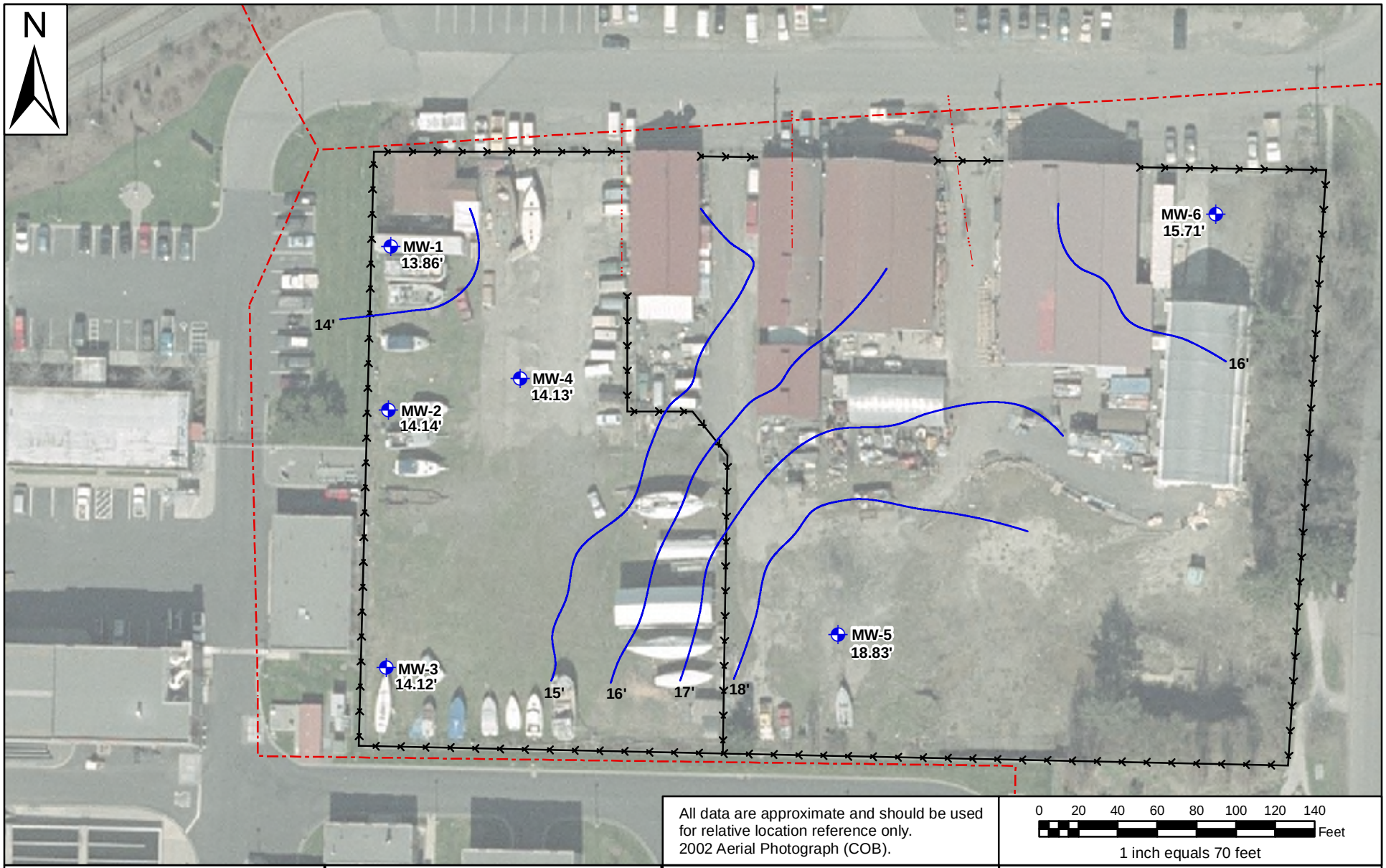
Piezometer P-1

Ecology Well ID:

APPENDIX I
GROUNDWATER ELEVATION CONTOUR MAPS

LIST OF GROUNDWATER ELEVATION CONTOUR MAPS

Figure I-1	08/03/2007
Figure I-2	11/14/2007
Figure I-3	12/06/2007
Figure I-4	03/12/2008
Figure I-5	06/16/2008
Figure I-6	09/15/2008
Figure I-7	03/05/2009
Figure I-8	06/04/2009
Figure I-9	09/02/2009
Figure I-10	11/18/2009
Figure I-11	03/18/2010
Figure I-12	06/23/2010
Figure I-13	09/09/2010
Figure I-14	12/01/2010
Figure I-15	03/23/2011
Figure I-16	06/15/2011
Figure I-17	09/21/2011
Figure I-18	12/06/2011
Figure I-19	06/12/2012
Figure I-20	11/15/2012
Figure I-21	09/29/2014
Figure I-22	09/28/2015
Figure I-23	09/07/2016
Figure I-24	09/19/2017
Figure I-25	09/20/2018
Figure I-26	08/06/2019
Figure I-27	09/14/2020
Figure I-28	09/20/2022
Figure I-29	09/06/2023



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

Prepared for:

City of Bellingham

Prepared by:

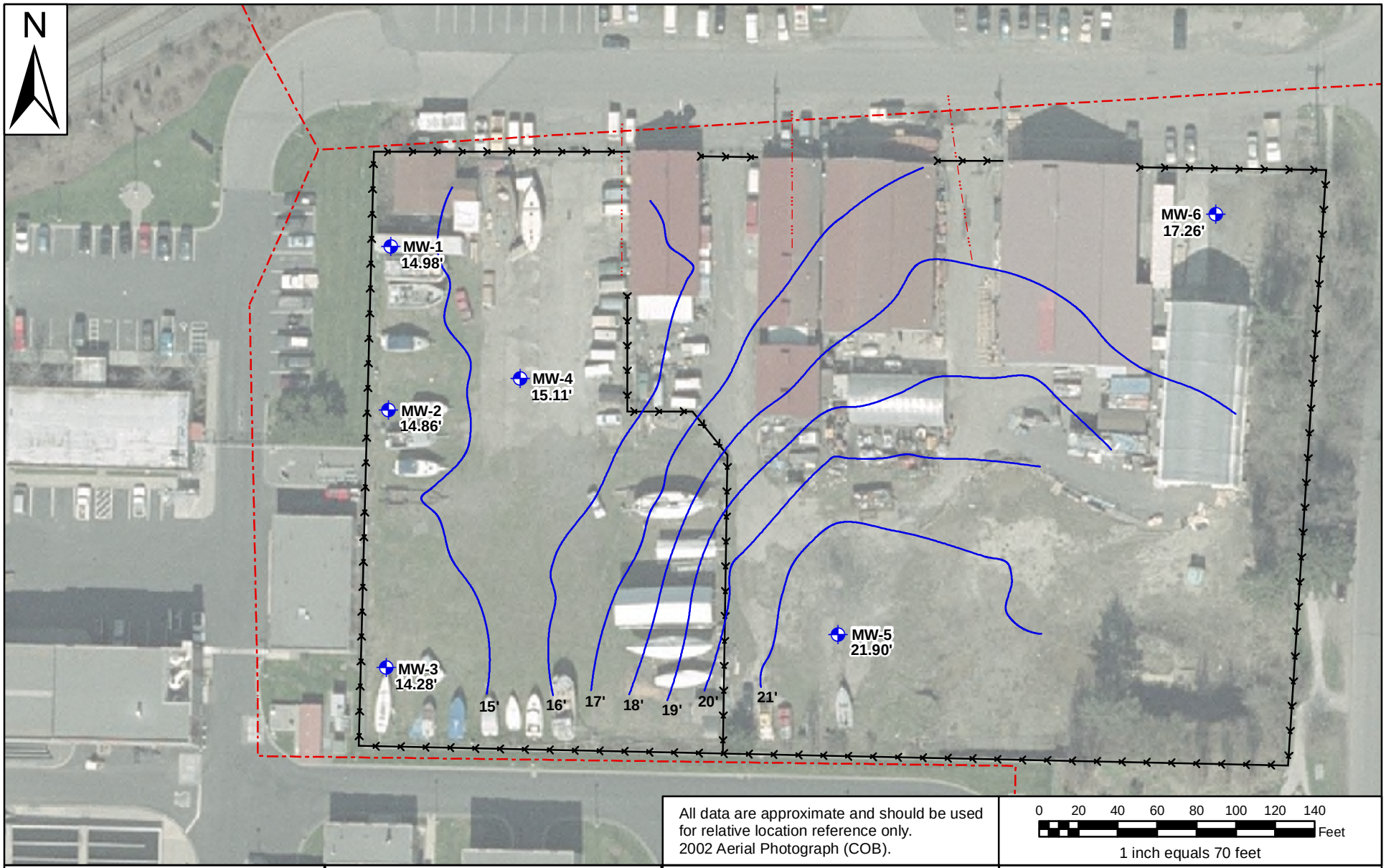
whatcom ENVIRONMENTAL

Groundwater Contour Map (8/3/2007)

210 McKenzie RI/FS

05/27/14

Figure I-1



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
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Groundwater Contour Map (11/14/2007)

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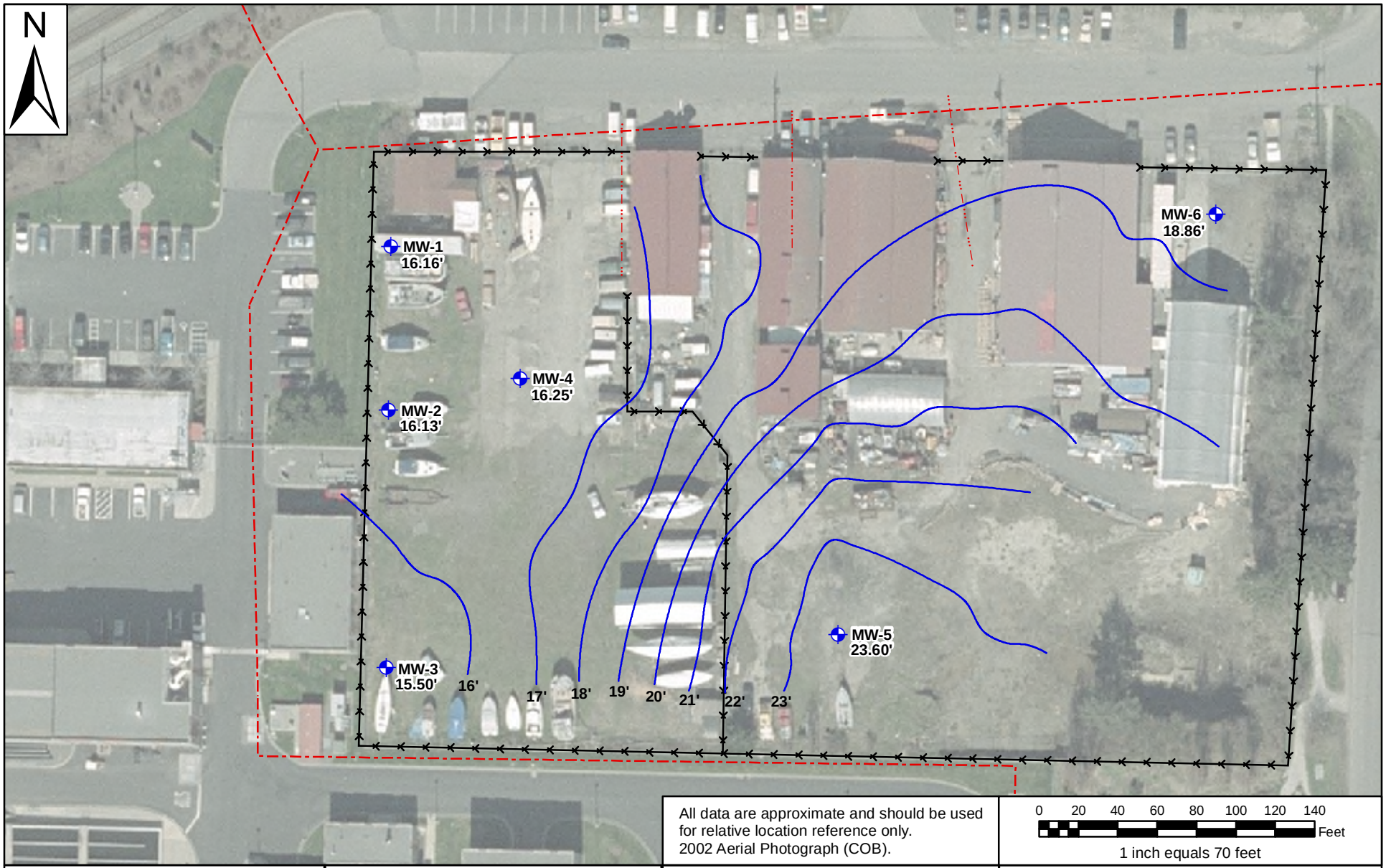
05/27/14

Figure I-2



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
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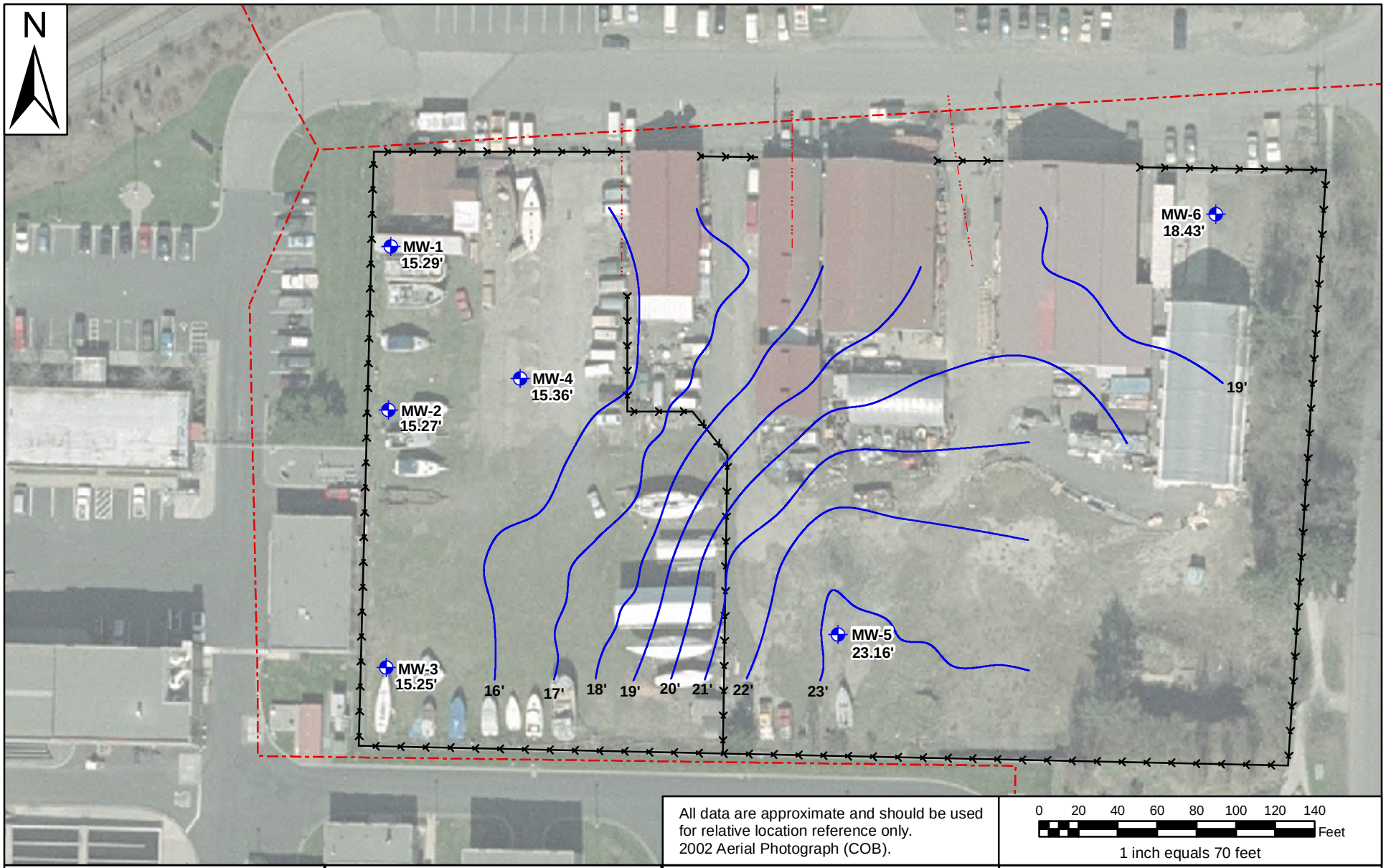
Groundwater Contour Map (12/06/2007)

210 McKenzie RI/FS

05/27/14

Figure I-3



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

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Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (03/12/2008)

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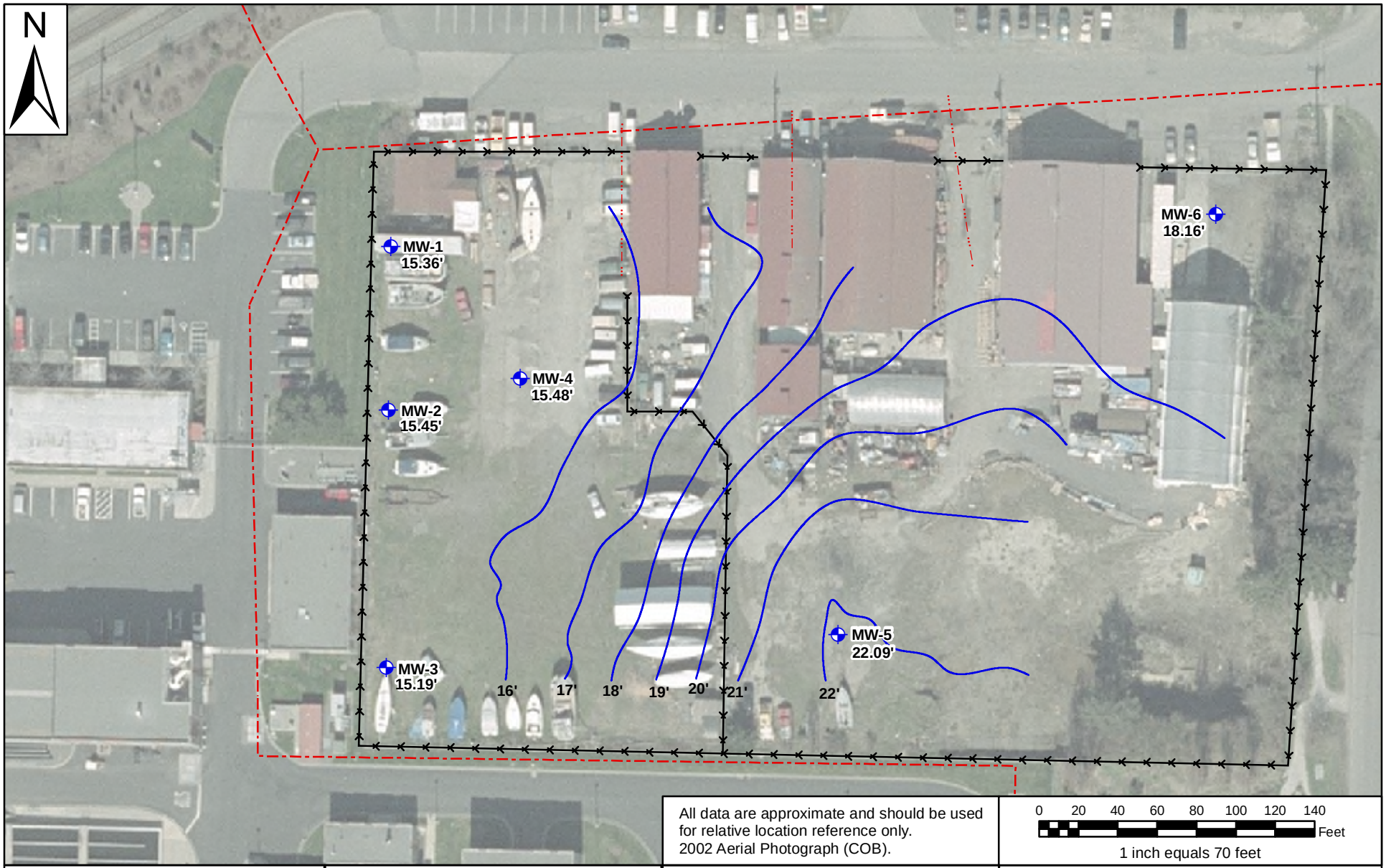
05/27/14

Figure I-4



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (06/16/2008)

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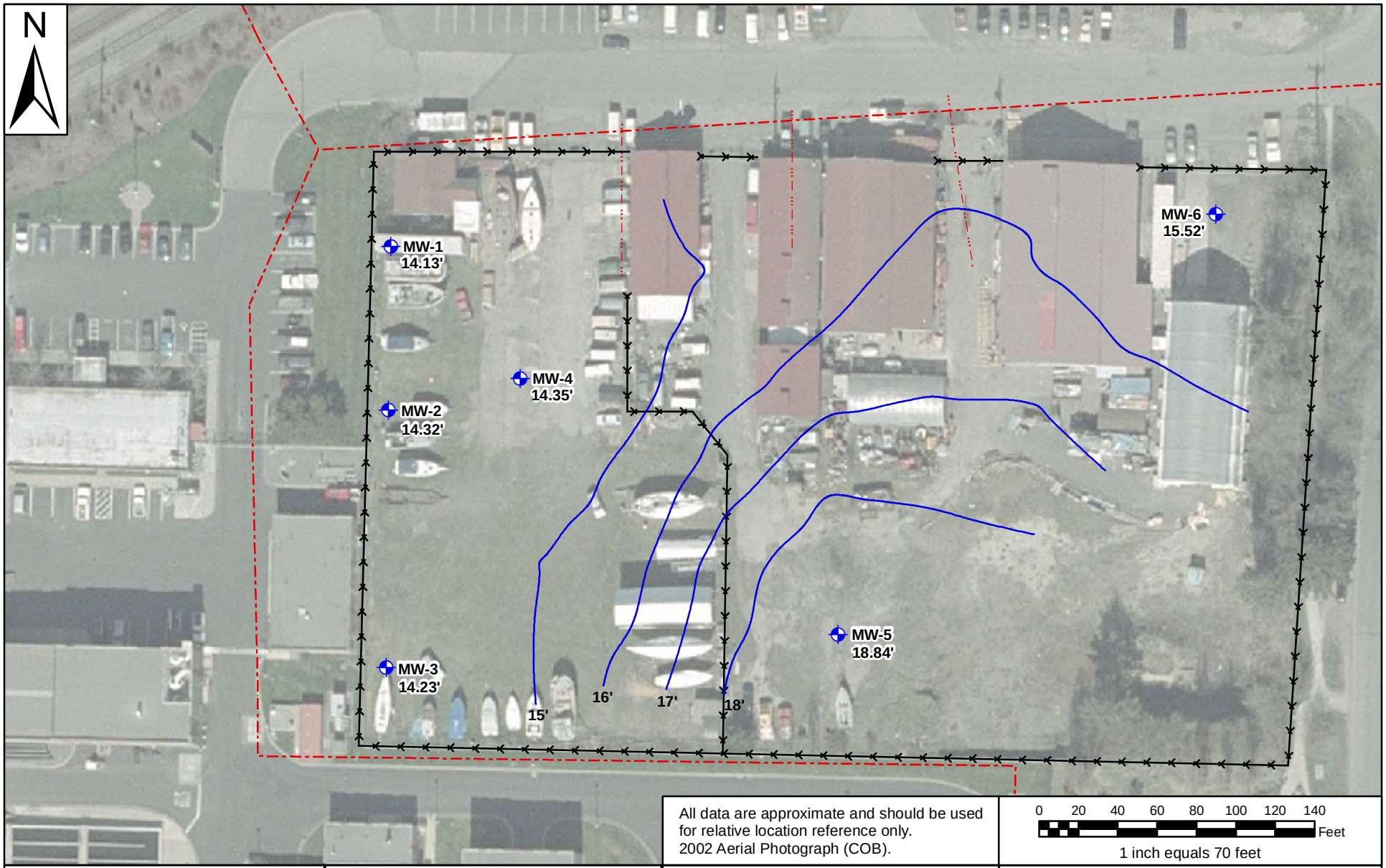
05/27/14

Figure I-5



All data are approximate and should be used for relative location reference only.
2002 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (09/15/2008)

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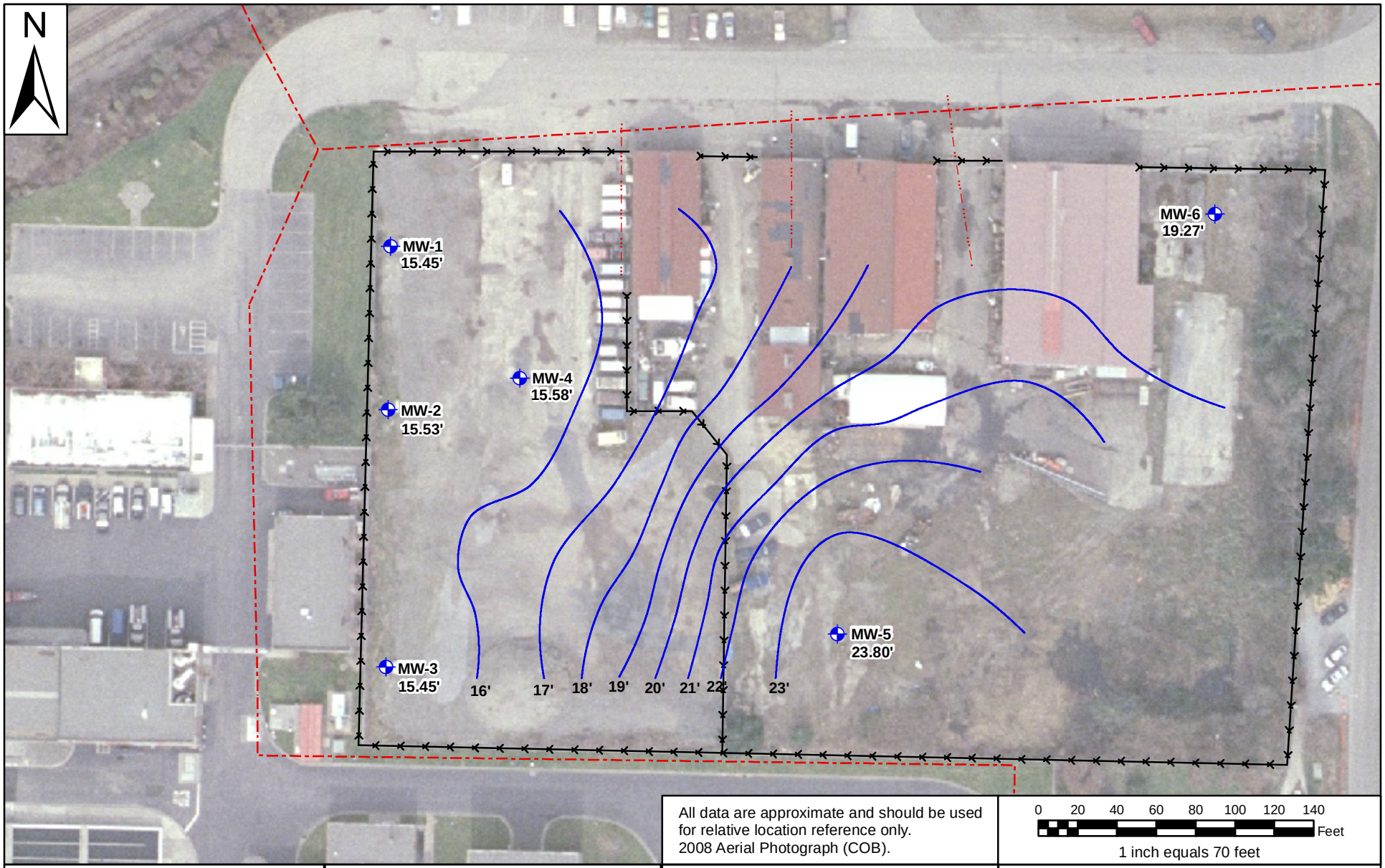
05/27/14

Figure I-6



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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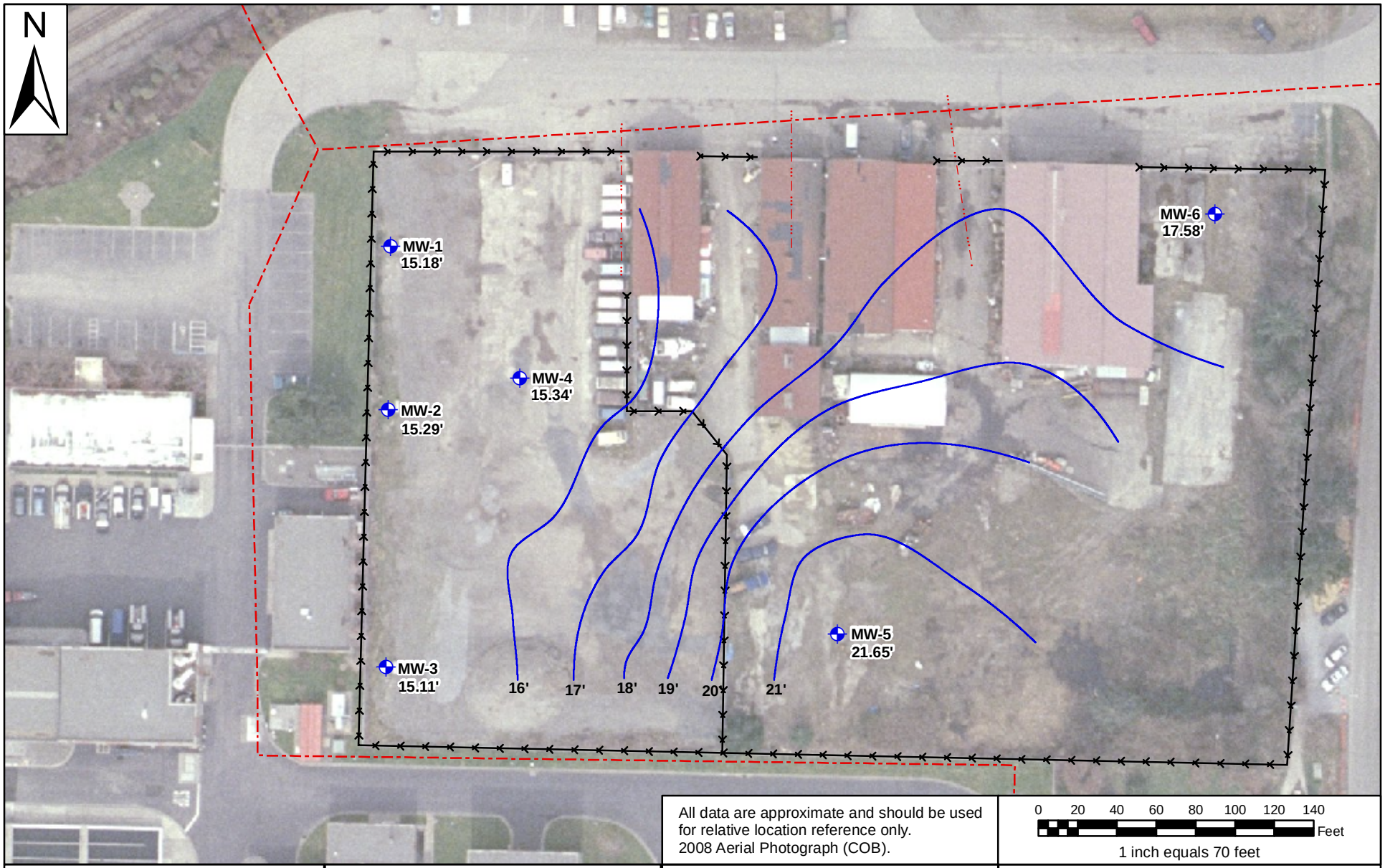
Groundwater Contour Map (03/05/2009)

210 McKenzie RI/FS

05/27/14

Figure I-7



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
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Fenceline
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Groundwater Contour Map (06/04/2009)

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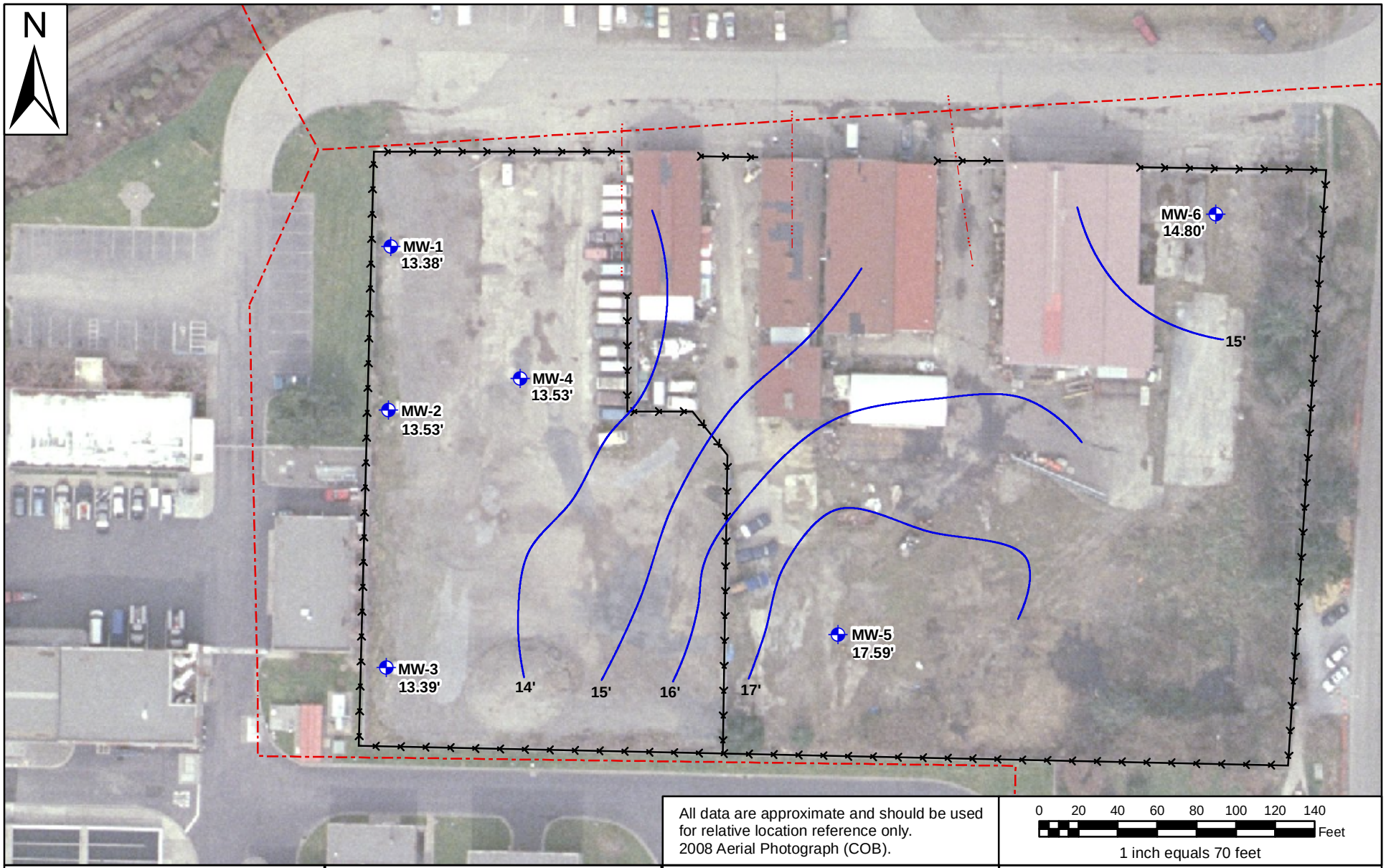
05/27/14

Figure I-8



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

- Groundwater Elevation Contours
- Monitoring Wells
- Fenceline
- Sanitary Sewer Line

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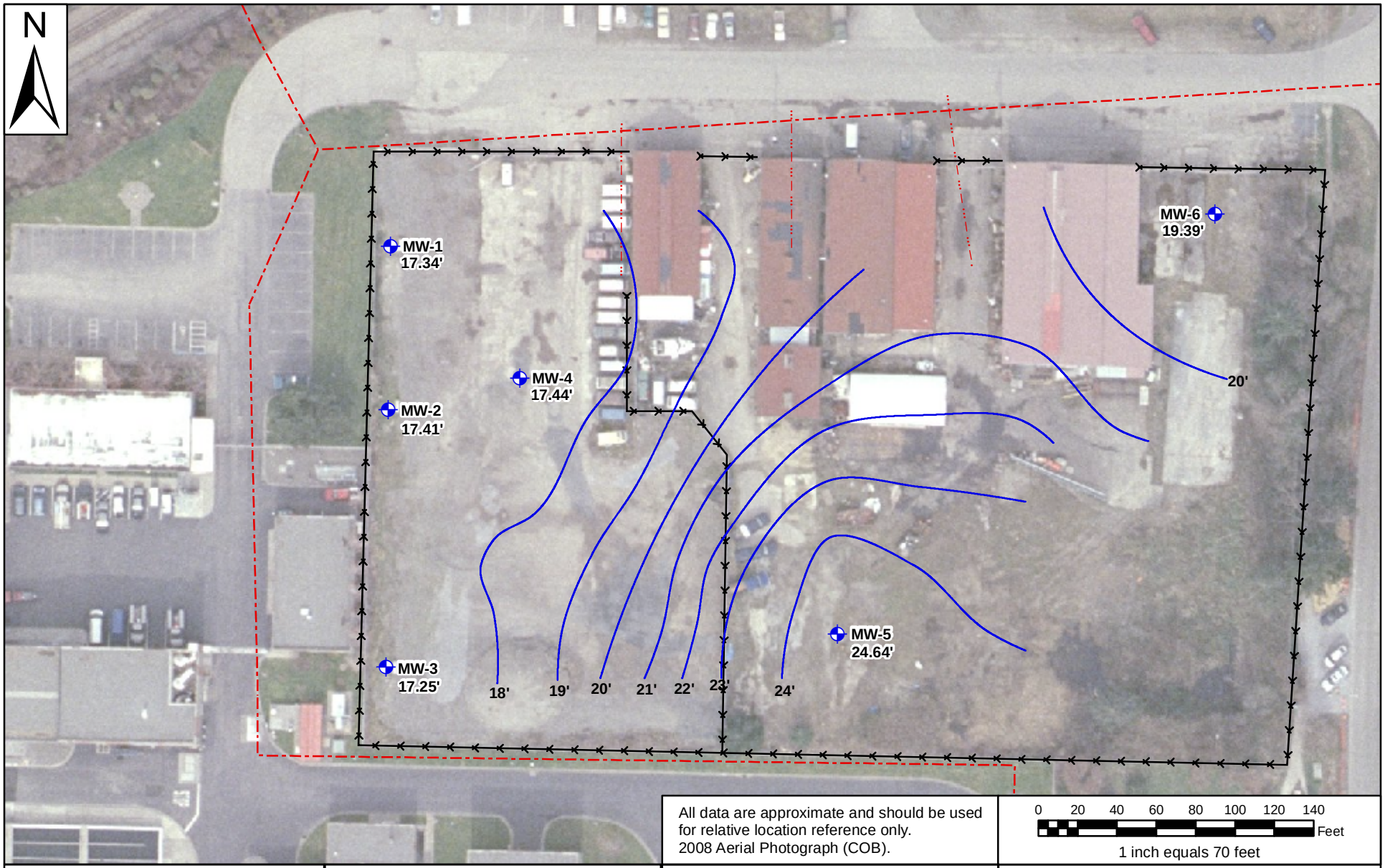
Groundwater Contour Map (09/02/2009)

210 McKenzie RI/FS

05/27/14

Figure I-9



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
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Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (11/18/2009)

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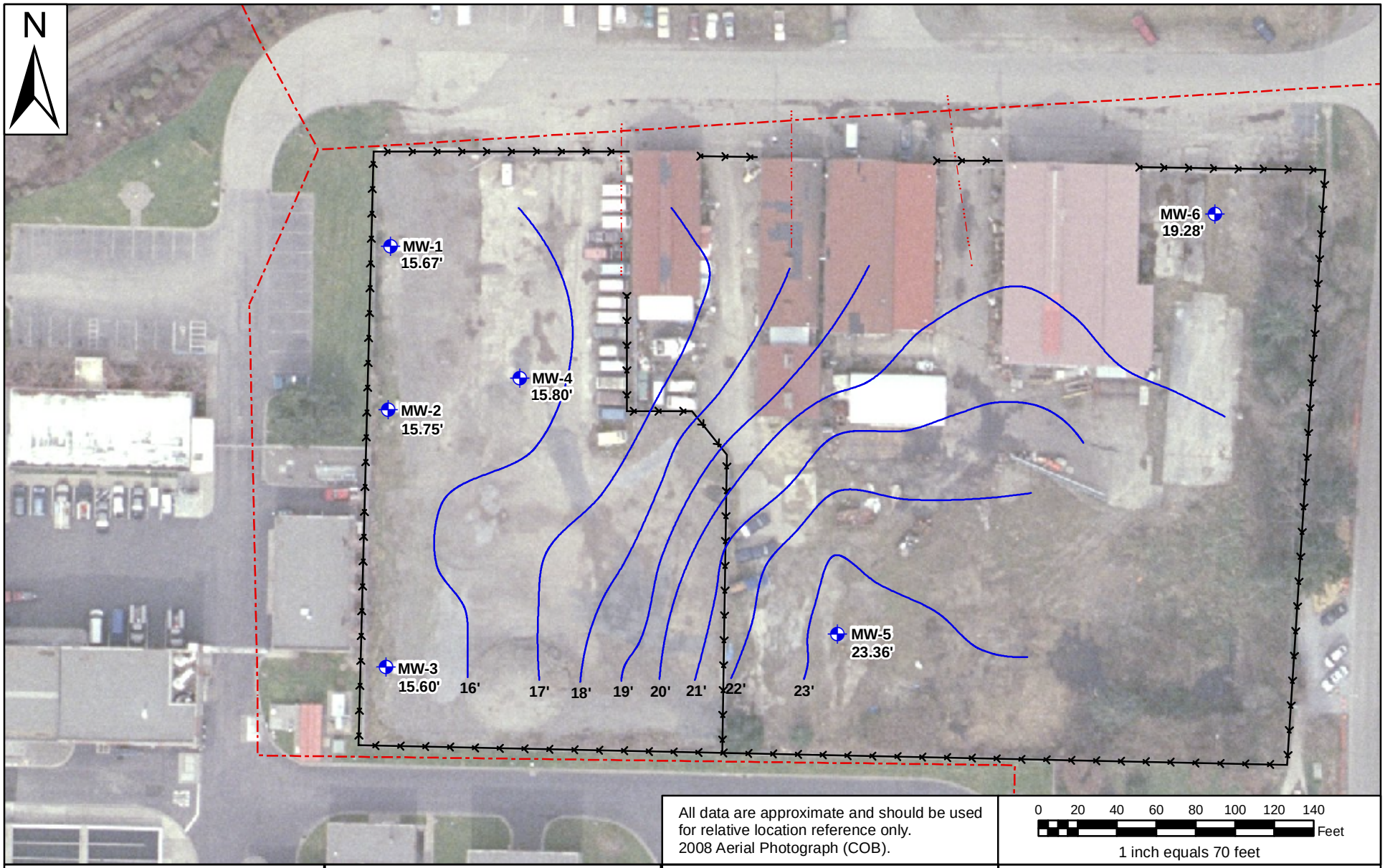
05/27/14

Figure I-10



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (03/18/2010)

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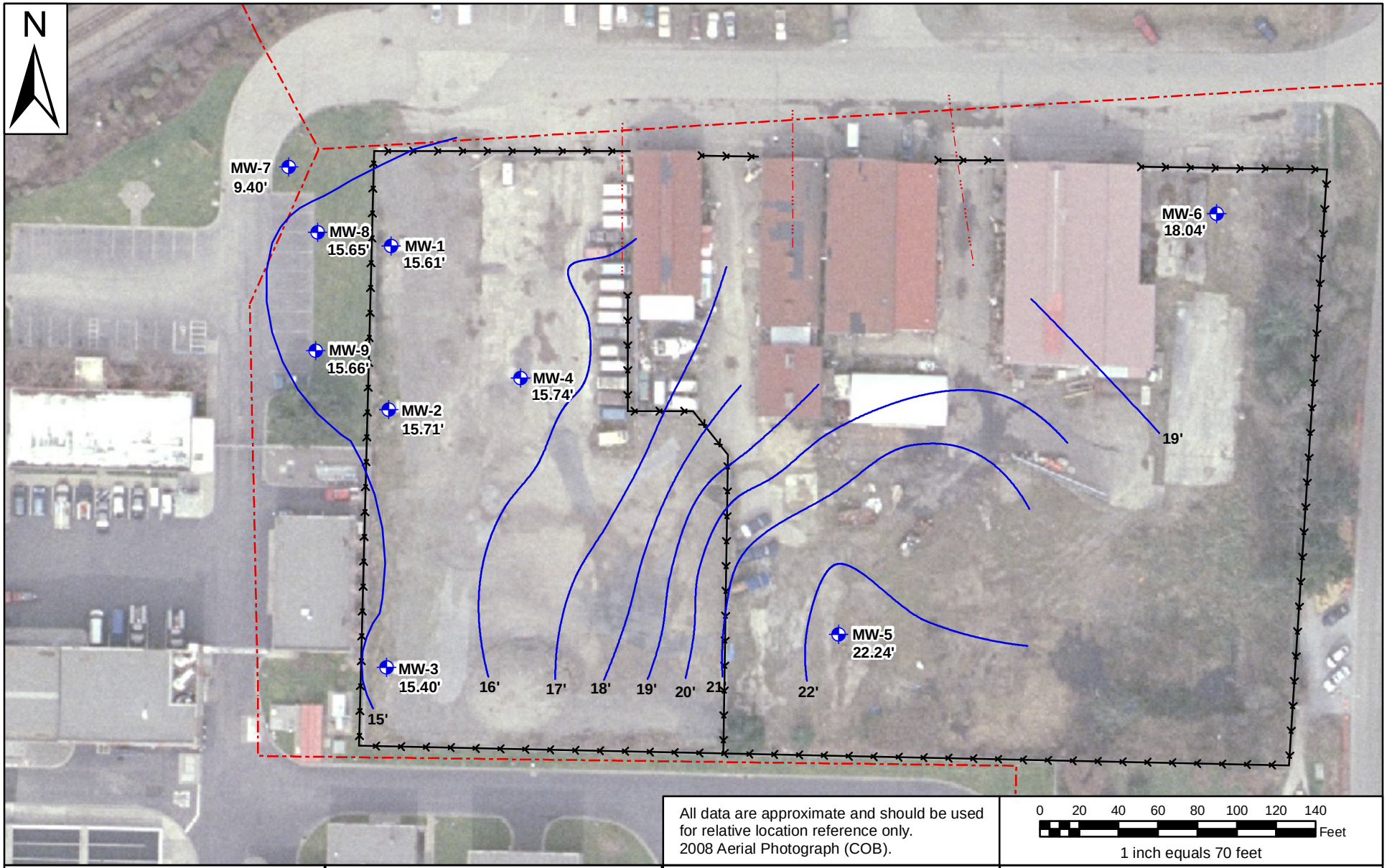
Figure I-11



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
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Groundwater Contour Map (06/23/2010)

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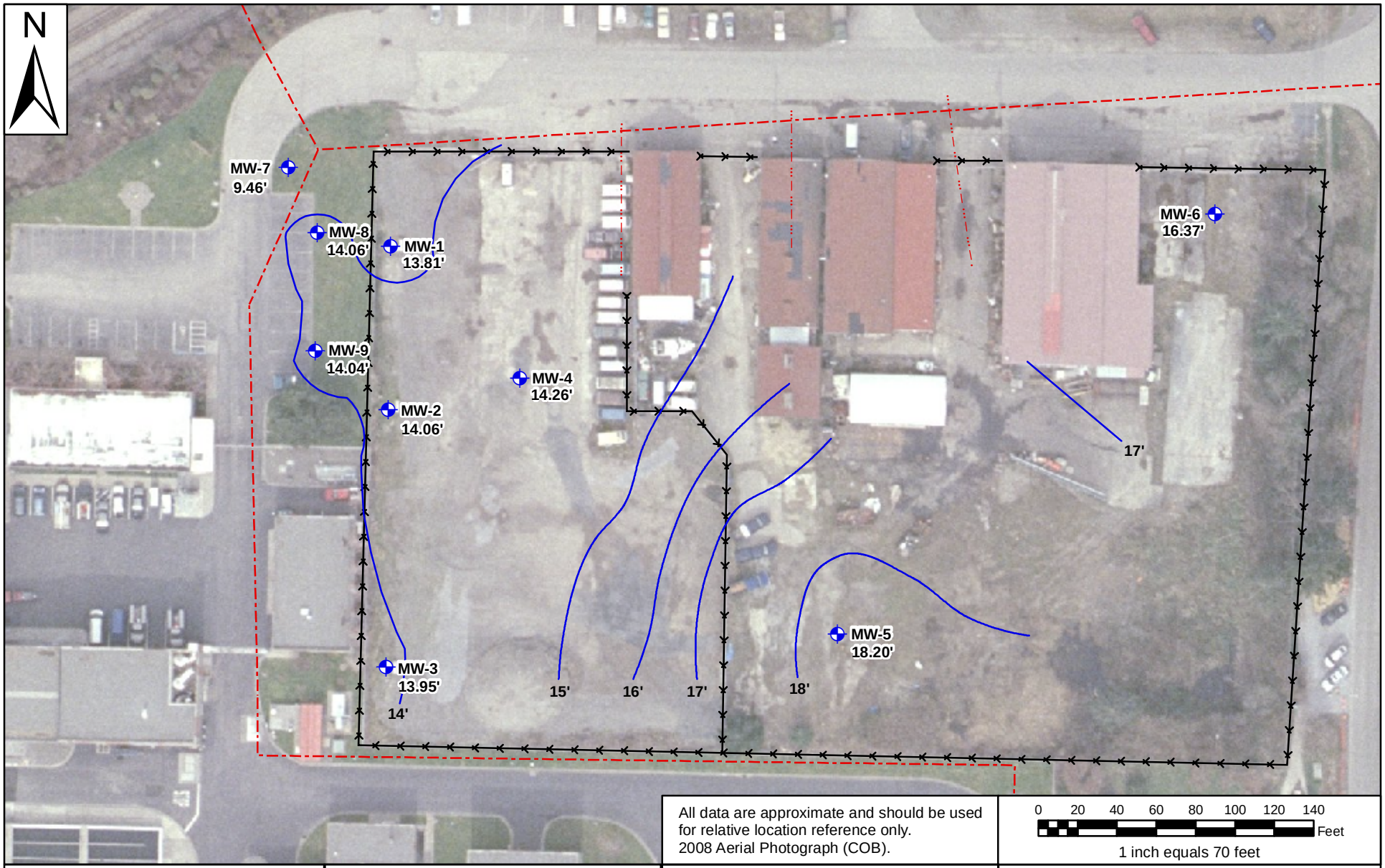
05/27/14

Figure I-12



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
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Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (09/09/2010)

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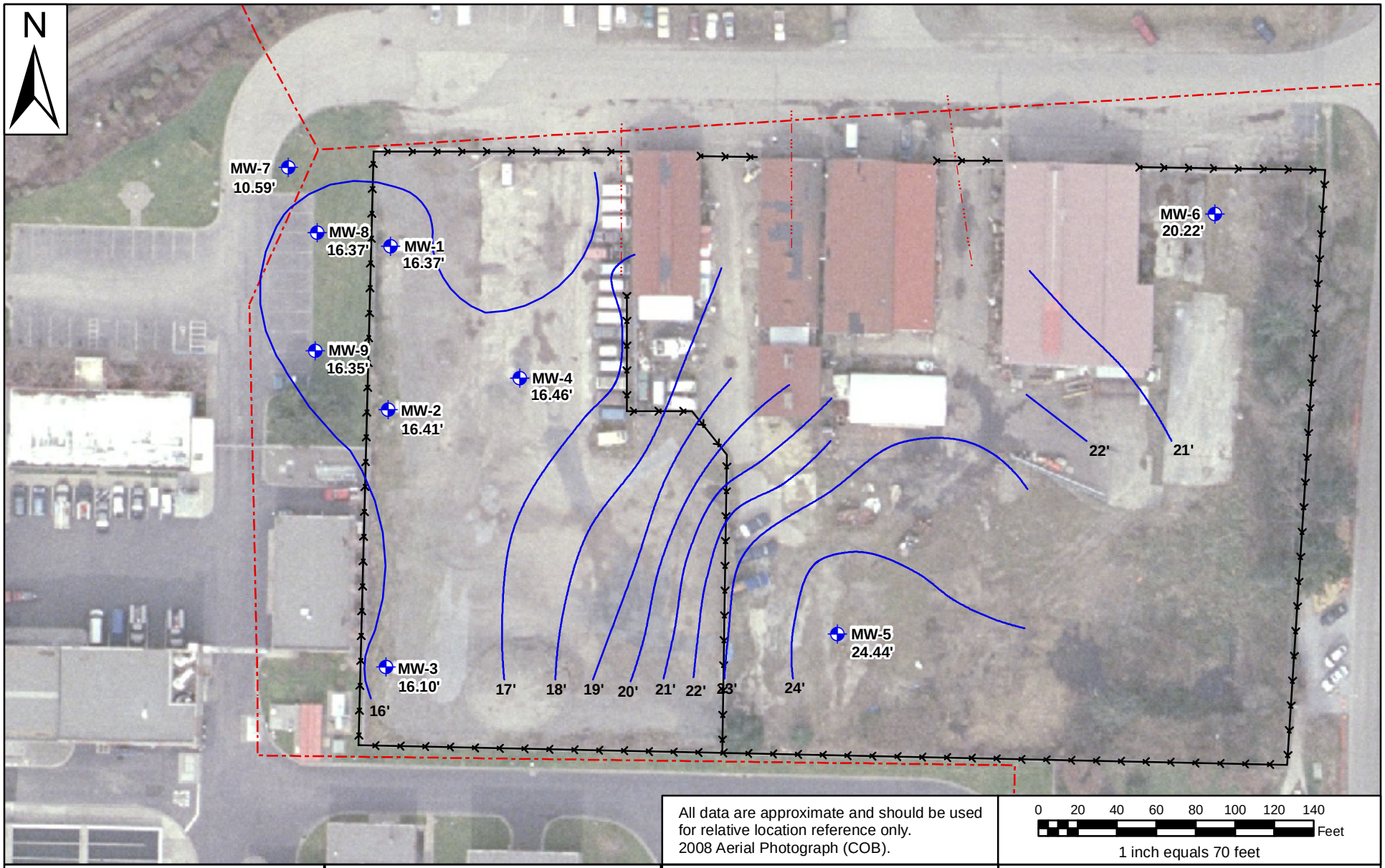
05/27/14

Figure I-13



All data are approximate and should be used for relative location reference only.
2008 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (12/01/2010)

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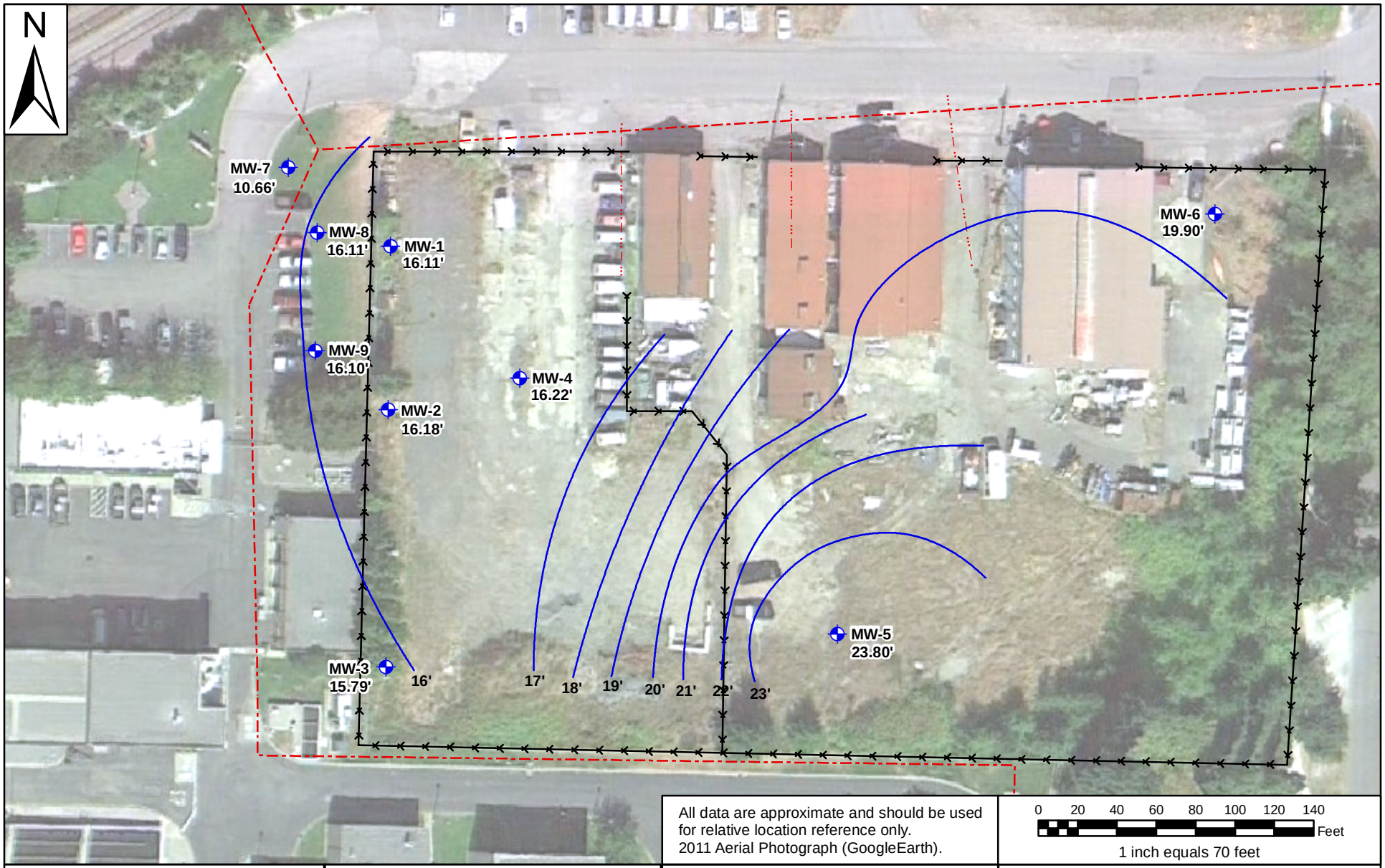
Figure I-14



All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (03/23/2011)

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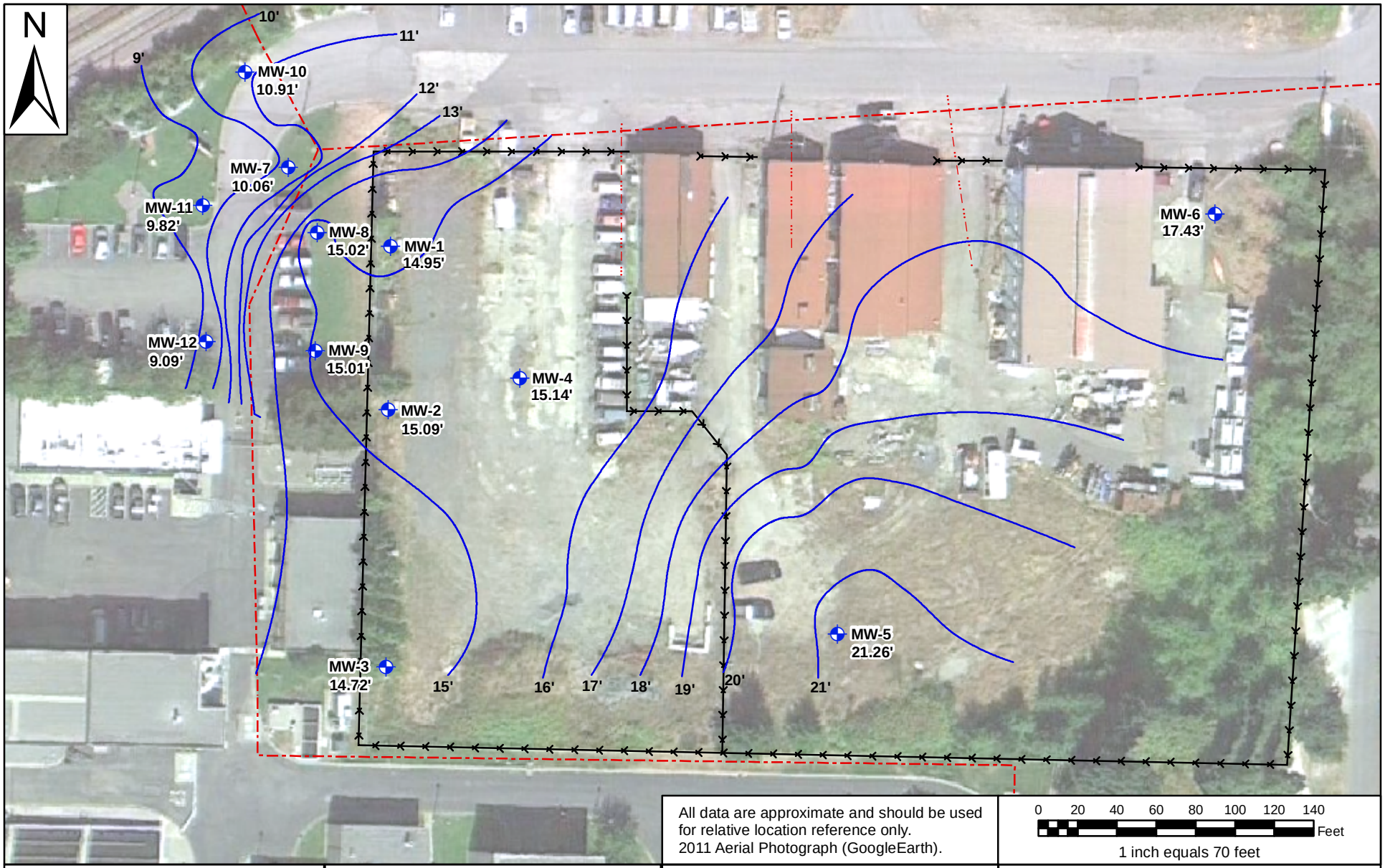
Figure I-15



All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (06/15/2011)

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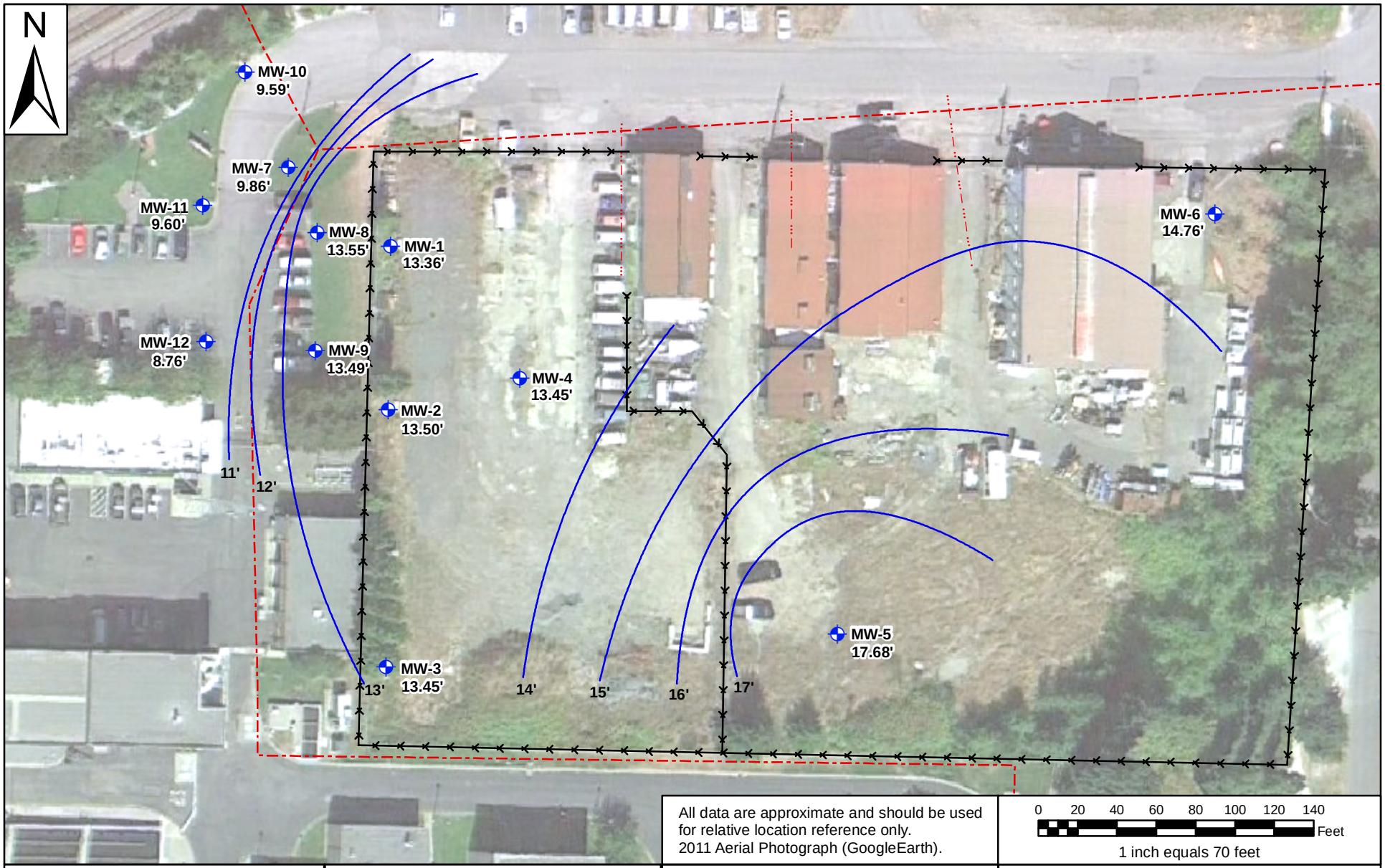
05/28/14

Figure I-16



All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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Groundwater Contour Map (09/21/2011)

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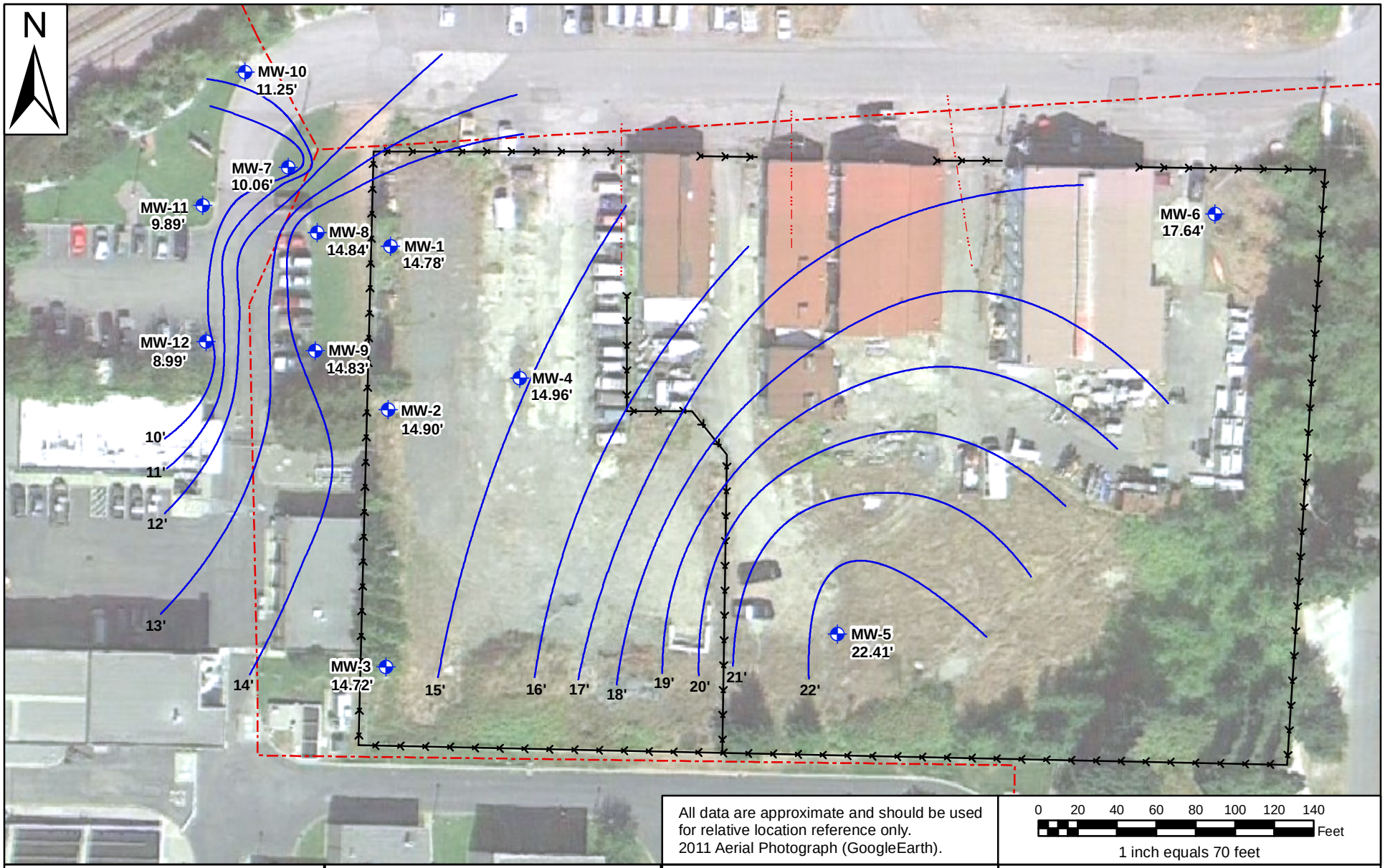
05/28/14

Figure I-17



All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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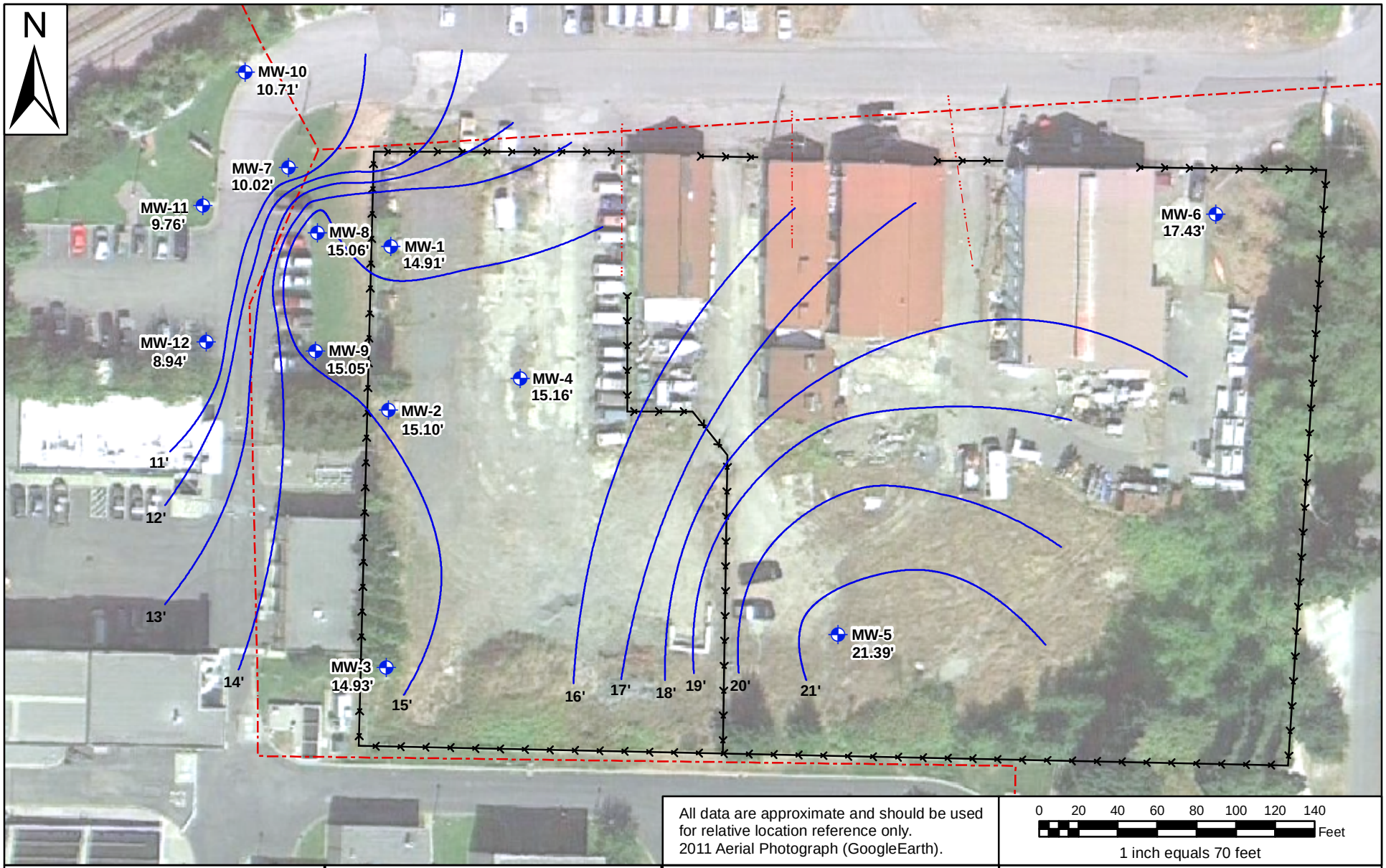
Groundwater Contour Map (12/06/2011)

210 McKenzie RI/FS

05/28/14

Figure I-18


N
MW-10
10.71'
MW-7
10.02'
MW-11
9.76'
MW-8
15.06'
MW-1
14.91'
MW-6
17.43'
MW-12
8.94'
MW-9
15.05'
MW-4
15.16'
MW-2
15.10'
11'
12'
13'
14'
MW-3
14.93'
15'
16'
17'
18'
19'
20'
21'
MW-5
21.39'
All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).
0 20 40 60 80 100 120 140
Feet
1 inch equals 70 feet
Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line
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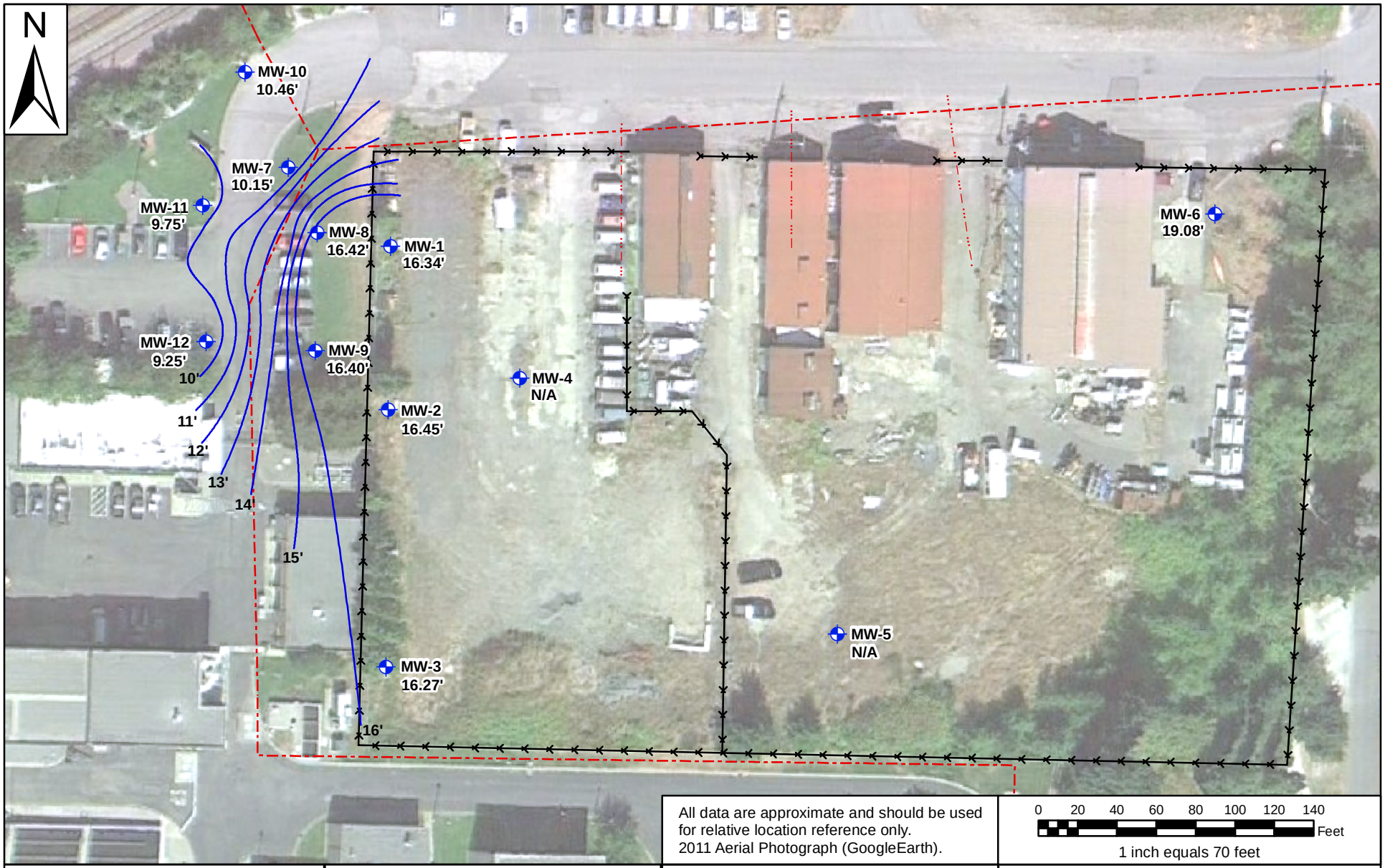
Groundwater Contour Map (06/12/2012)
210 McKenzie RI/FS
05/28/14
Figure I-19


N
MW-10
10.46'
MW-7
10.15'
MW-11
9.75'
MW-8
16.42'
MW-1
16.34'
MW-6
19.08'
MW-12
9.25'
MW-9
16.40'
MW-4
N/A
MW-2
16.45'
10'
11'
12'
13'
14'
15'
MW-5
N/A
MW-3
16.27'
16'
All data are approximate and should be used for relative location reference only.
2011 Aerial Photograph (GoogleEarth).
0 20 40 60 80 100 120 140
Feet
1 inch equals 70 feet
Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line
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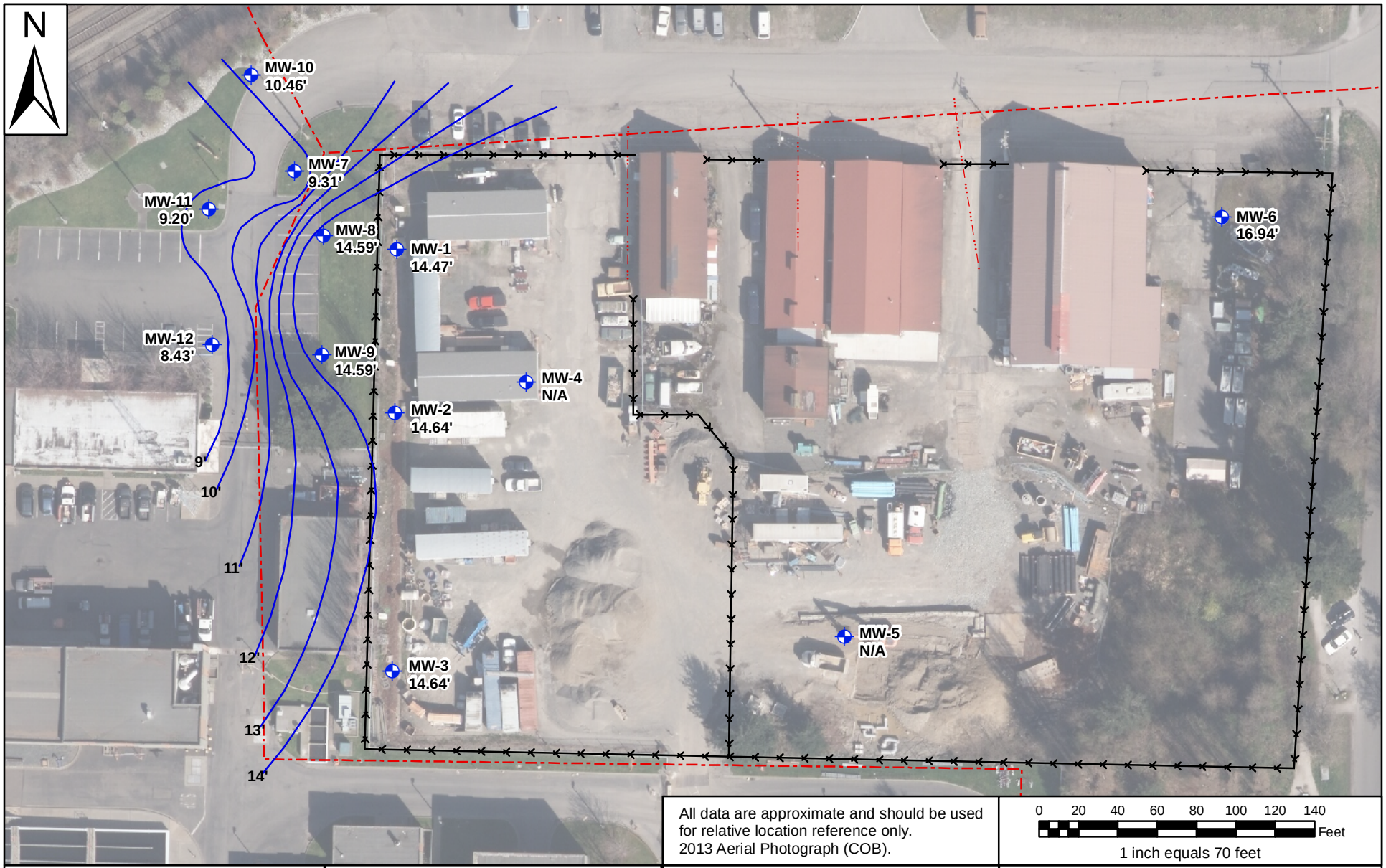
210 McKenzie RI/FS
05/28/14
Figure I-20


N
MW-10
10.46'
MW-7
9.31'
MW-11
9.20'
MW-8
14.59'
MW-1
14.47'
MW-6
16.94'
MW-12
8.43'
MW-9
14.59'
MW-4
N/A
MW-2
14.64'
9'
10'
11'
12'
13'
14'
MW-5
N/A
MW-3
14.64'
All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).
0 20 40 60 80 100 120 140
Feet
1 inch equals 70 feet
Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line
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City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
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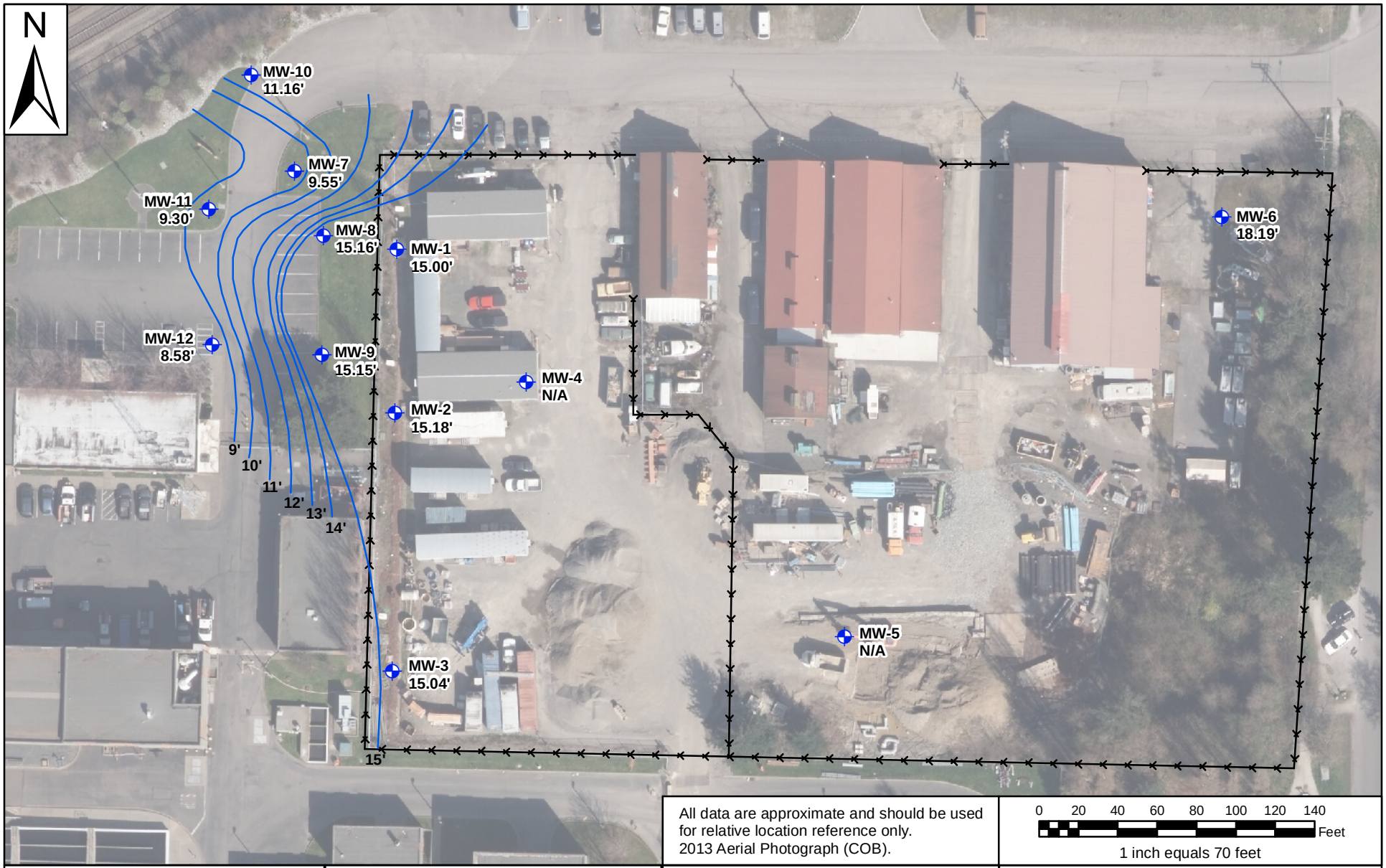
Groundwater Contour Map (09/29/2014)
210 McKenzie RI/FS
09/29/14
Figure I-21



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch equals 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

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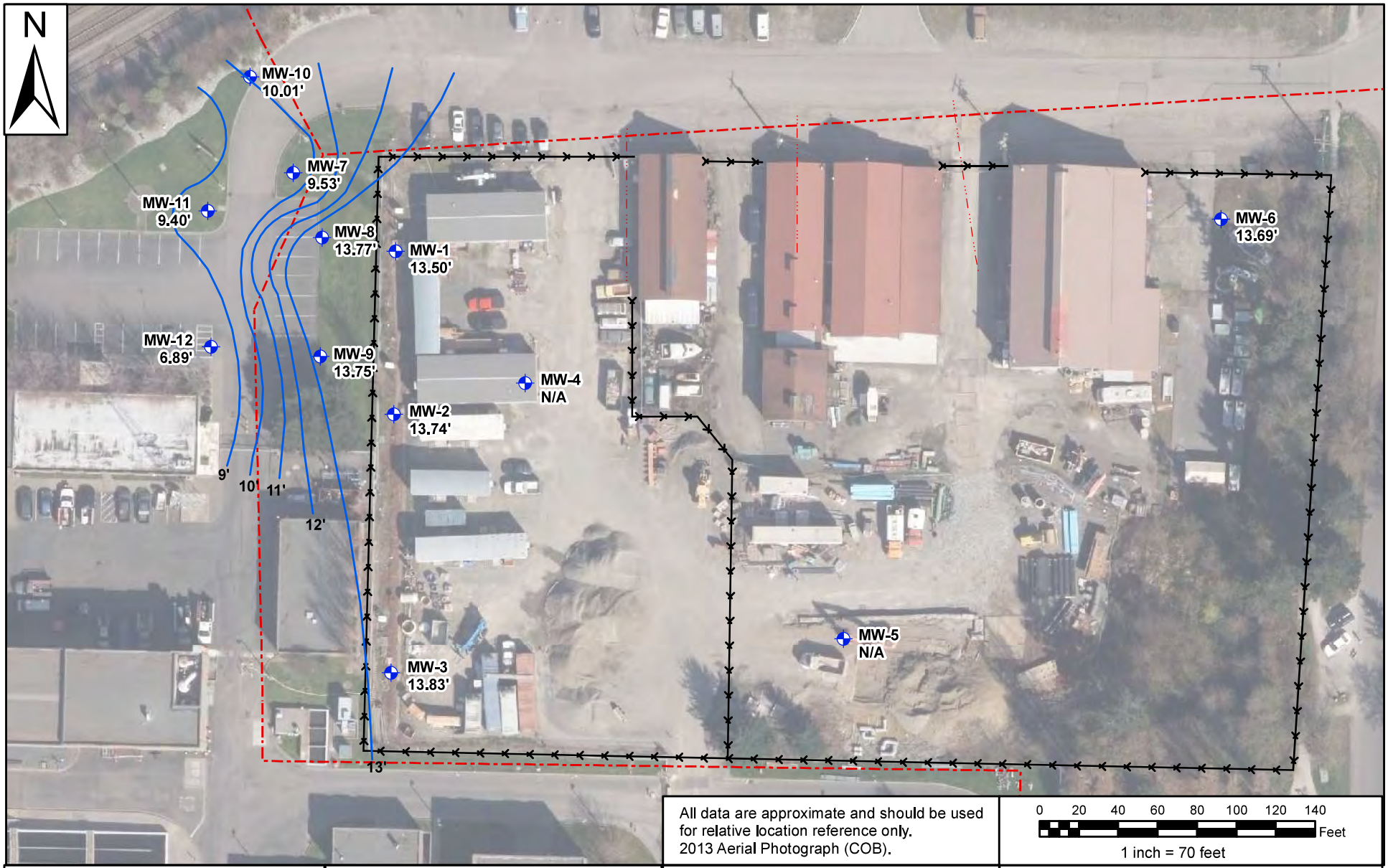
Groundwater Contour Map (09/28/2015)

210 McKenzie RI/FS

10/21/15

Figure I-22


N
MW-10
10.01'
MW-7
9.53'
MW-11
9.40'
MW-8
13.77'
MW-1
13.50'
MW-6
13.69'
MW-12
6.89'
MW-9
13.75'
MW-4
N/A
MW-2
13.74'
9'
10'
11'
12'
MW-5
N/A
MW-3
13.83'
13'
All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).
0 20 40 60 80 100 120 140
Feet
1 inch = 70 feet
Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line
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Prepared by:
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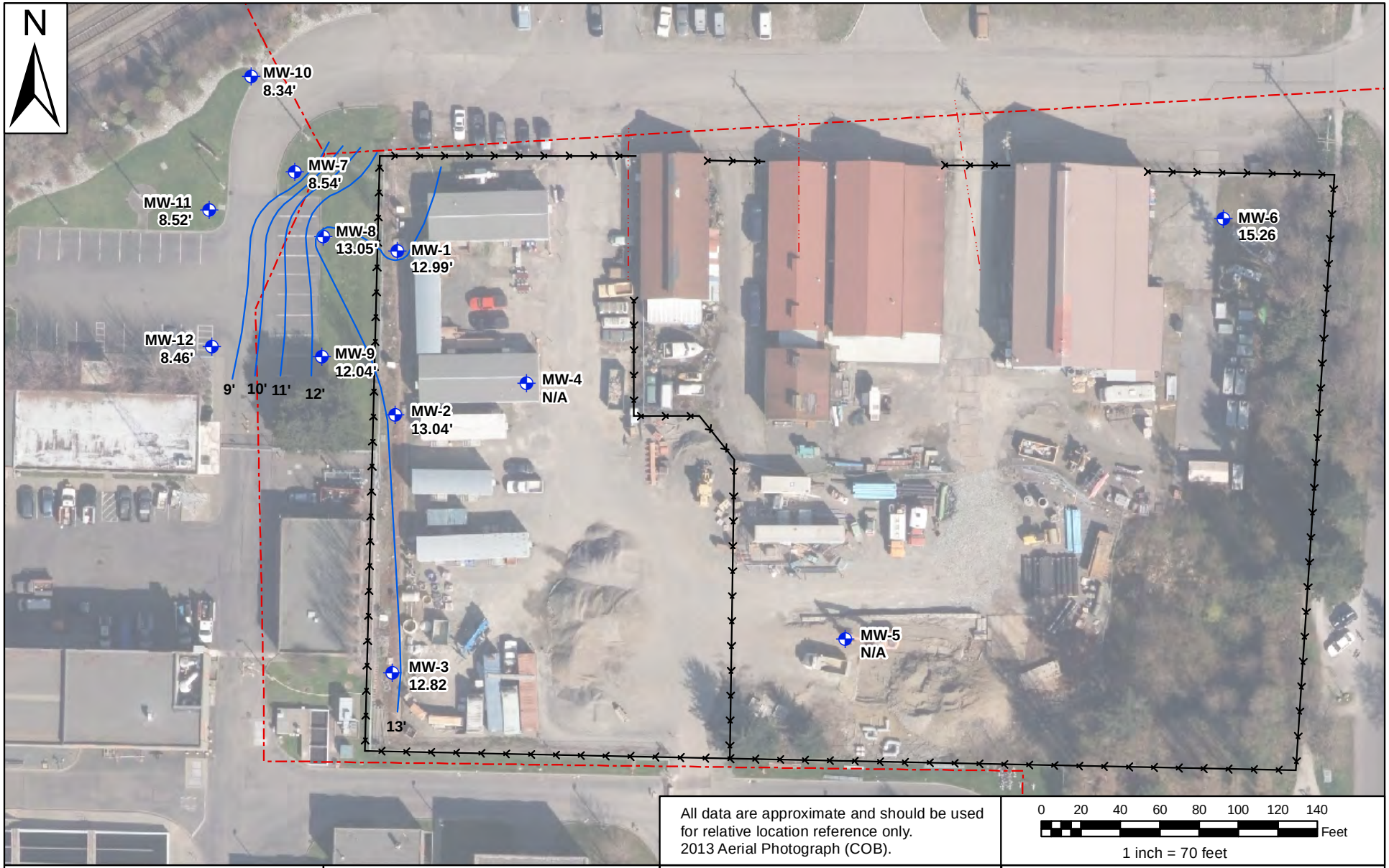
Groundwater Contour Map (09/07/2016)
210 McKenzie RI/FS
10/10/16
Figure I-23



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch = 70 feet

- Groundwater Elevation Contours
- Monitoring Wells
- Fenceline
- Sanitary Sewer Line

Prepared for:

City of Bellingham

Prepared by:

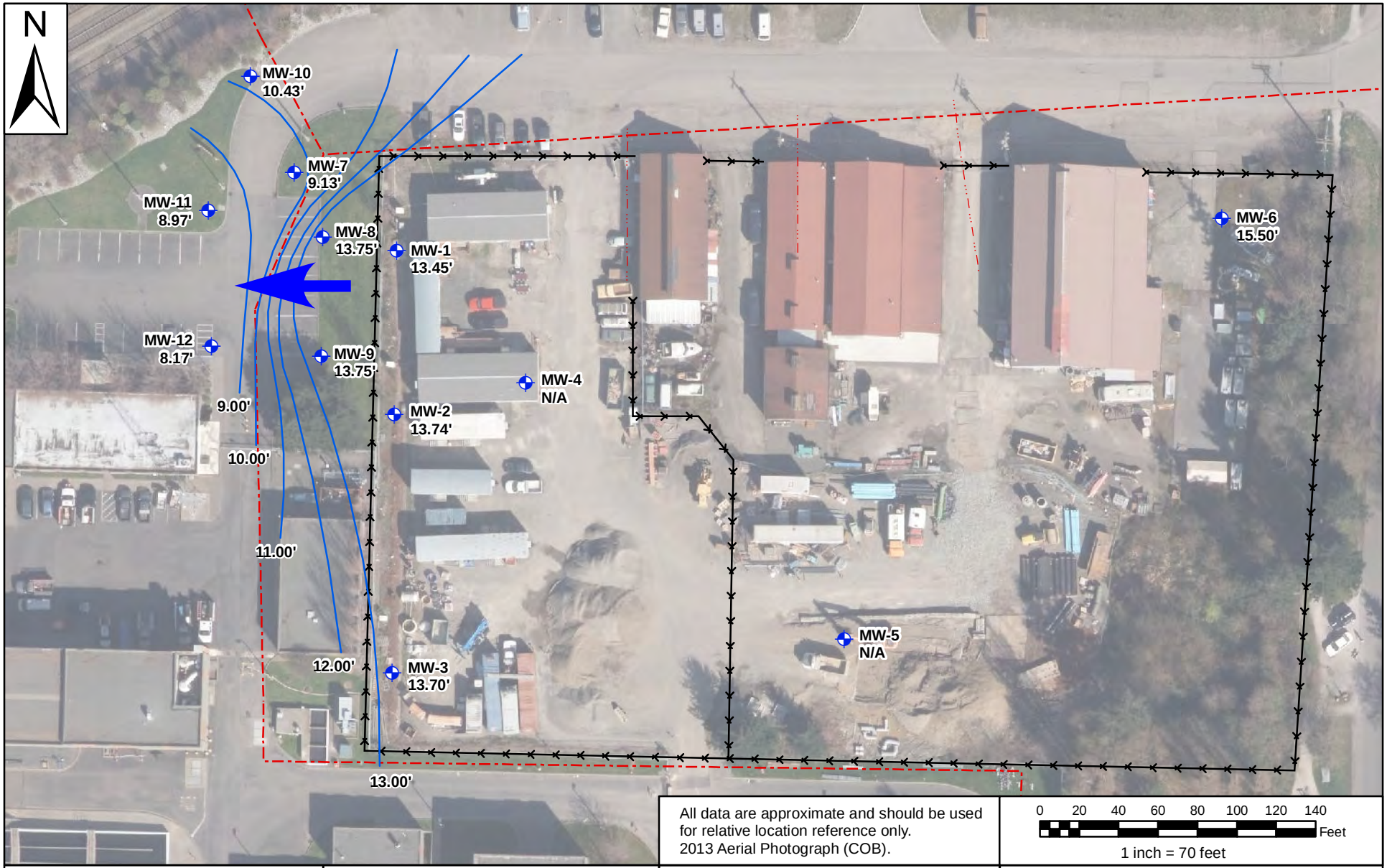
whatcom ENVIRONMENTAL

Groundwater Contour Map (09/19/2017)

210 McKenzie RI/FS

09/20/17

Figure I-24



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 20 40 60 80 100 120 140 Feet

1 inch = 70 feet

Groundwater Elevation Contours
Monitoring Wells
Fenceline
Sanitary Sewer Line

Prepared for:

City of Bellingham WASHINGTON

Prepared by:

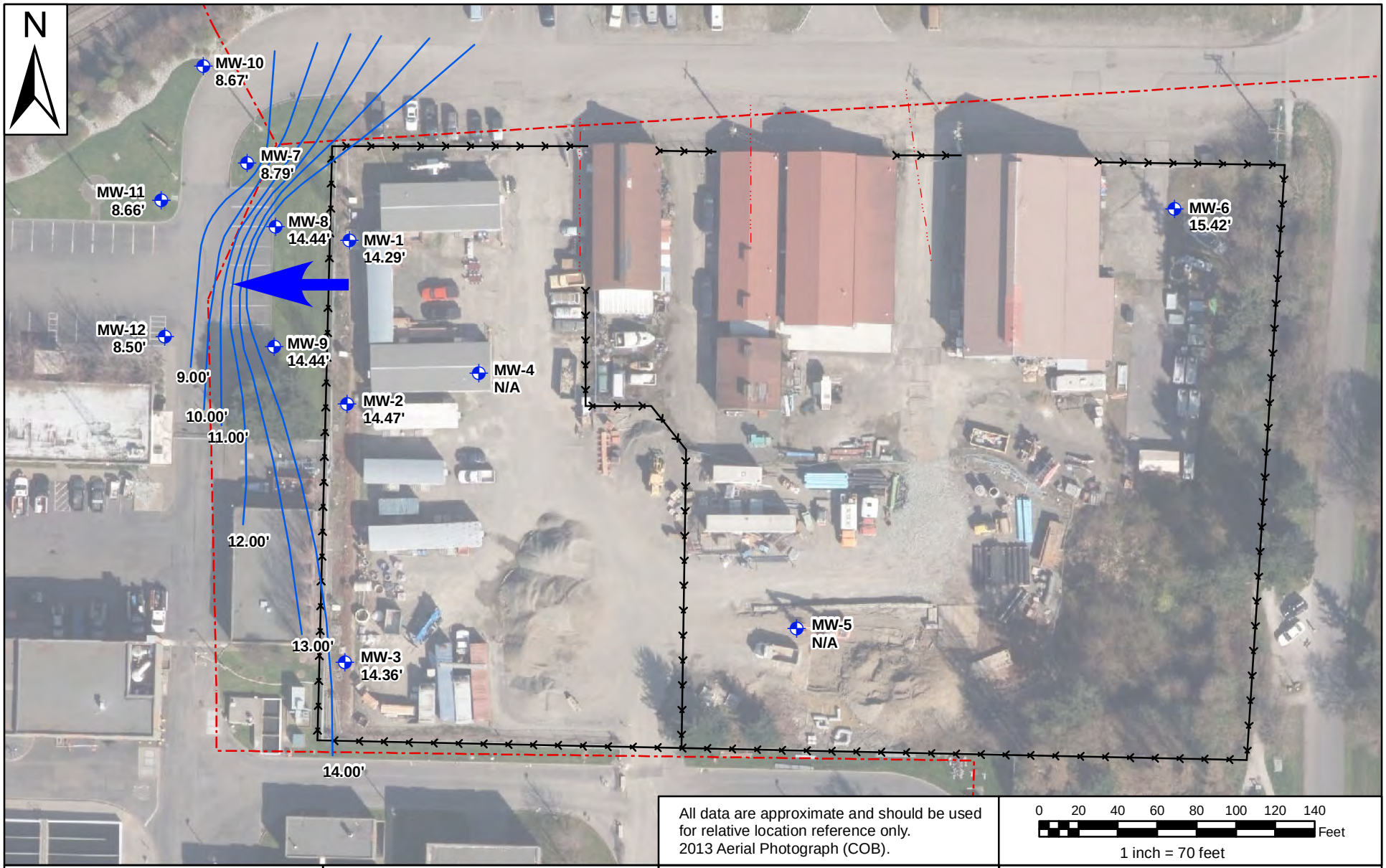
whatcom ENVIRONMENTAL

Groundwater Contour Map (09/20/2018)

210 McKenzie RI/FS

10/01/18

Figure I-25

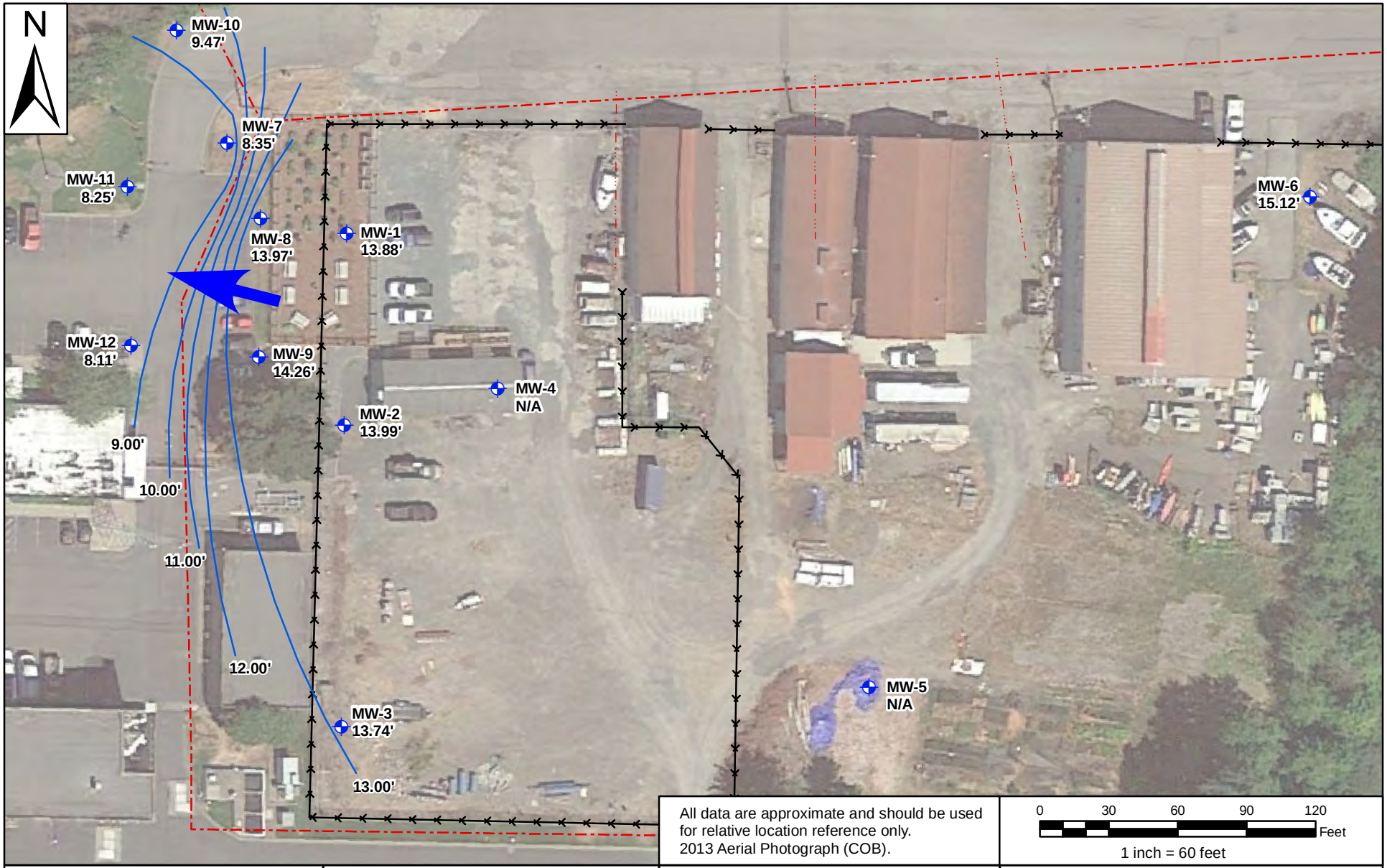


Groundwater Contour Map (08/06/2019)

210 McKenzie RI/FS

08/07/19

Figure I-26



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 30 60 90 120 Feet

1 inch = 60 feet

Monitoring Wells
Groundwater Elevation Contours
Fenceline
Sanitary Sewer Line

Prepared for: City of Bellingham WASHINGTON

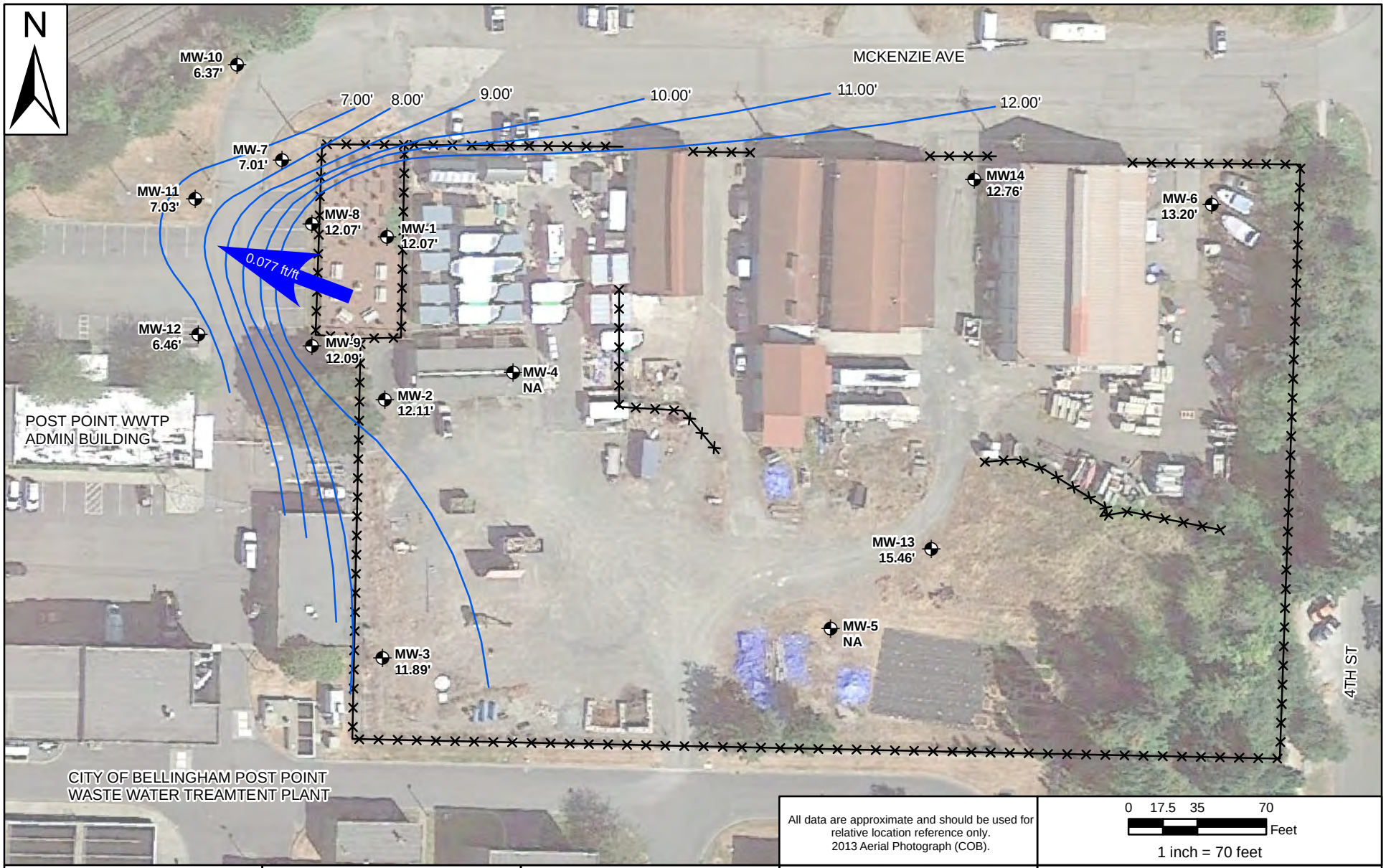
Prepared by: whatcom ENVIRONMENTAL

Groundwater Contour Map (09/14/2020)

210 McKenzie RI/FS

10/12/20

Figure I-27



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 17.5 35 70 Feet

1 inch = 70 feet

GW Monitoring Wells

GW Contours (9/20/2022)

Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

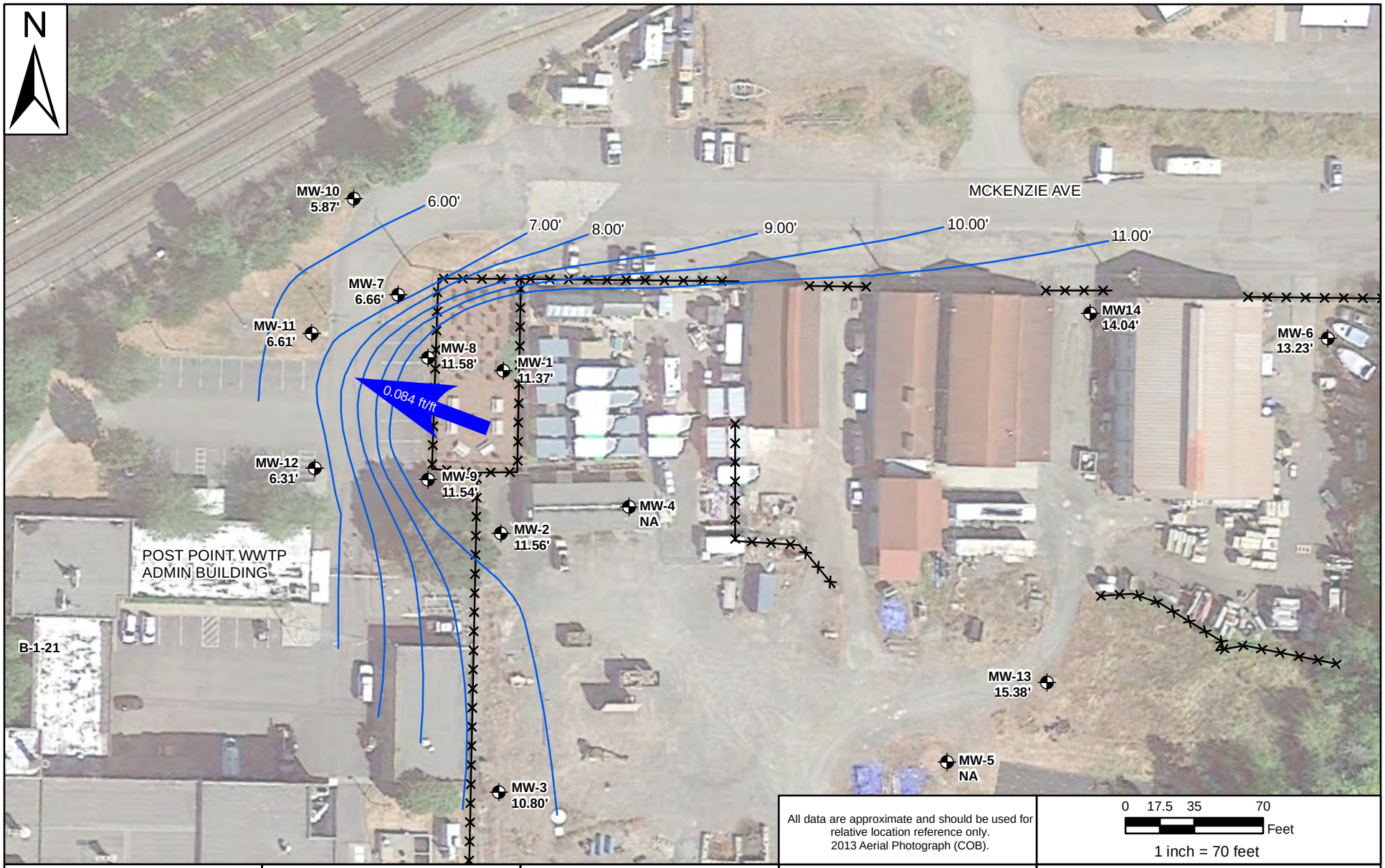
nwhatcom ENVIRONMENTAL

Groundwater Contour Map (09/20/2022)

210 McKenzie

10/10/2022

Figure I-28



All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

0 17.5 35 70 Feet

1 inch = 70 feet

GW Monitoring Well

GW Contours (9/6/2023)

Fenceline

All data are approximate and should be used for relative location reference only.

2020 aerial photograph (GoogleEarth).

Prepared for:

City of Bellingham

Prepared by:

nwhatcom ENVIRONMENTAL

Groundwater Contour Map (09/06/2023)

210 McKenzie

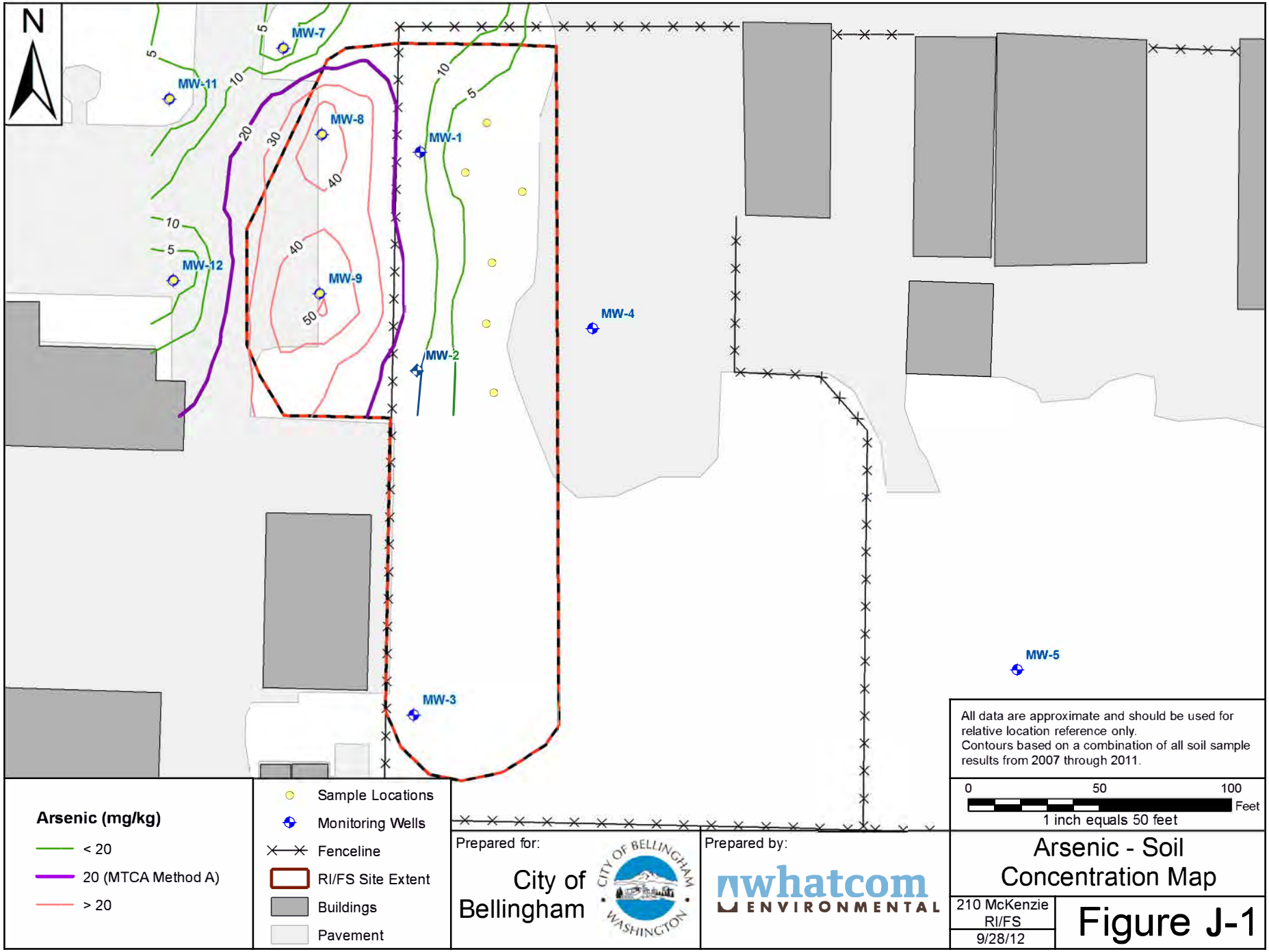
10/24/2023

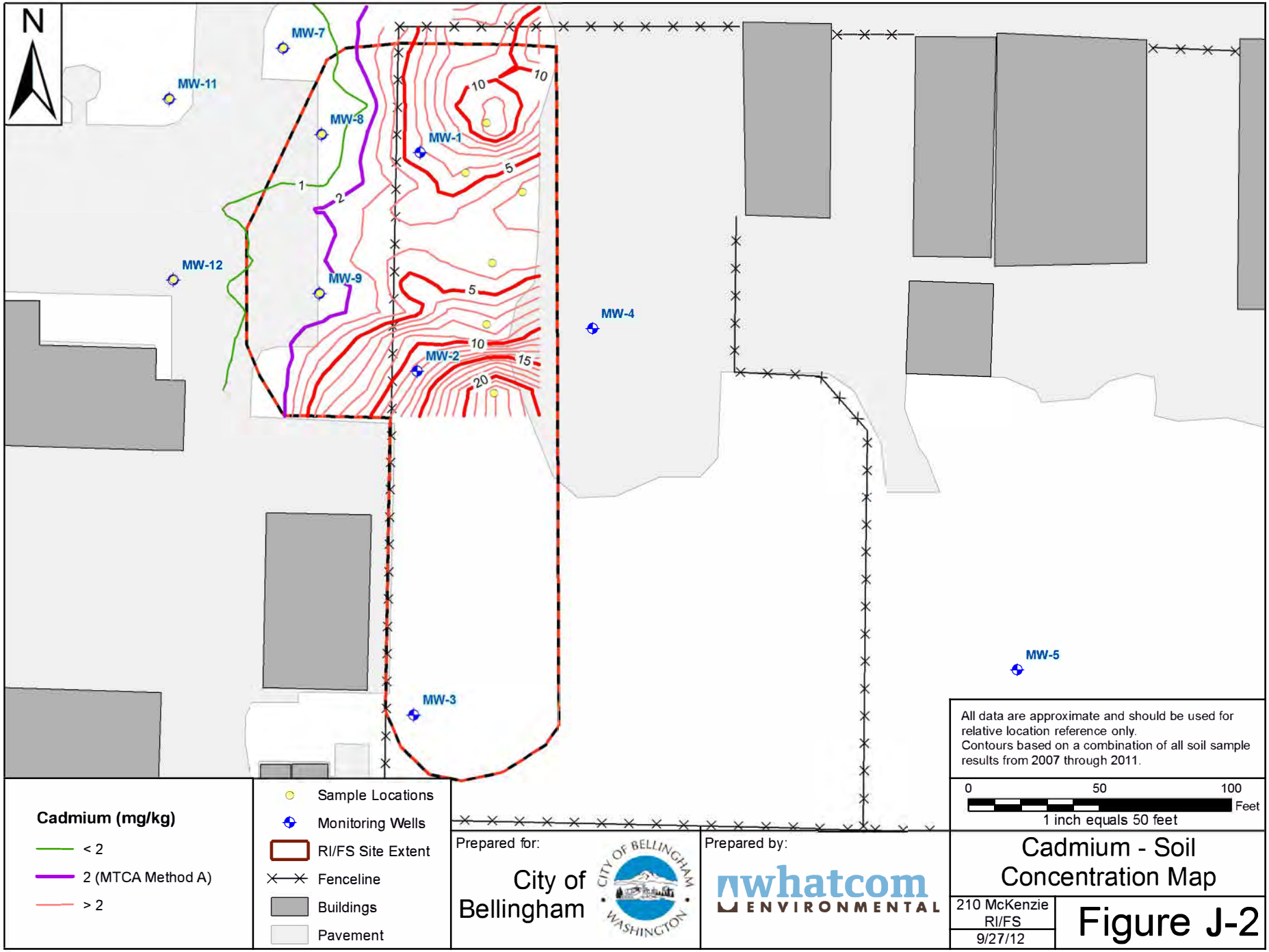
Figure I-29

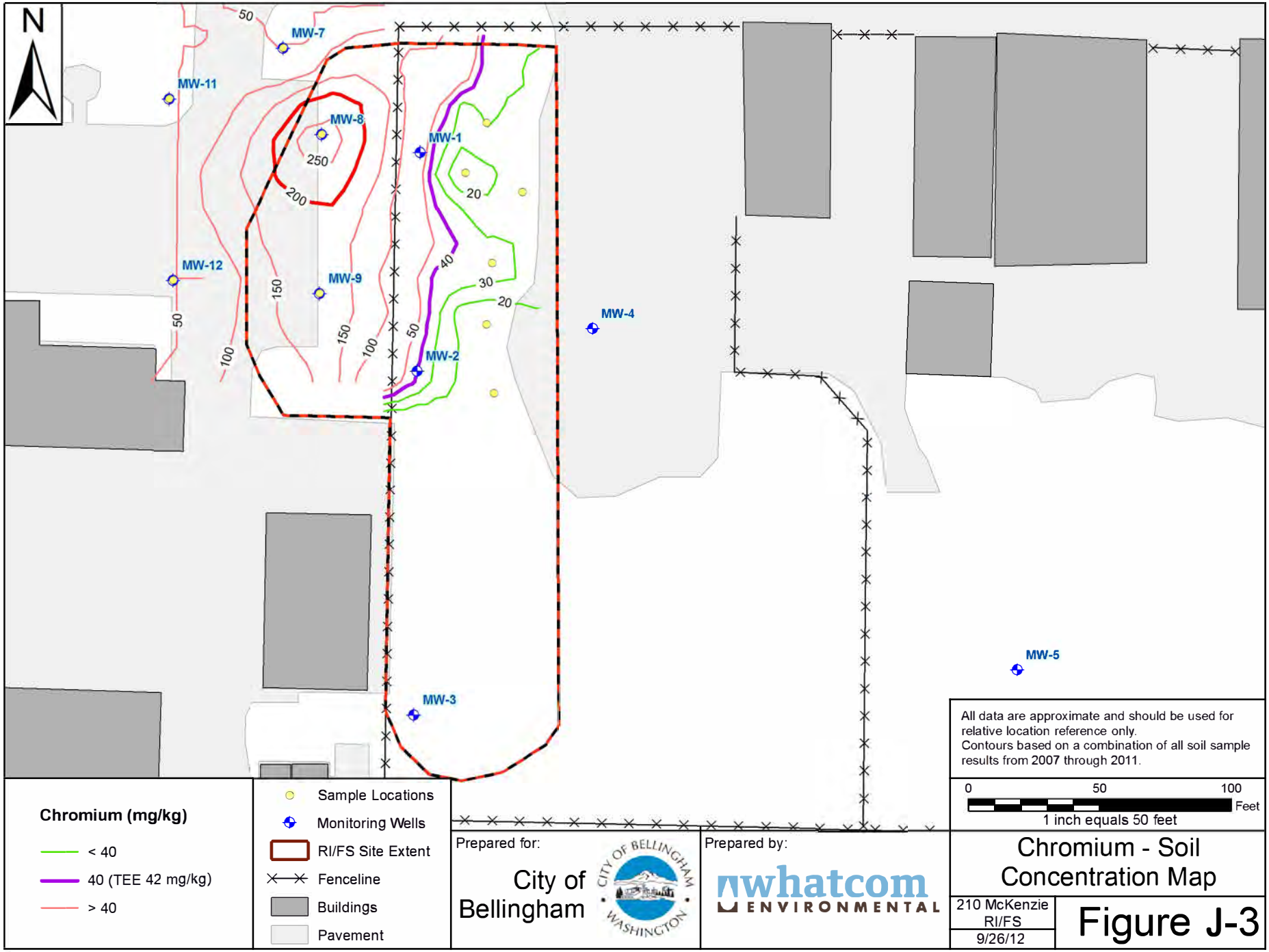
APPENDIX J
SOIL CONTAMINANT CONCENTRATION MAPS

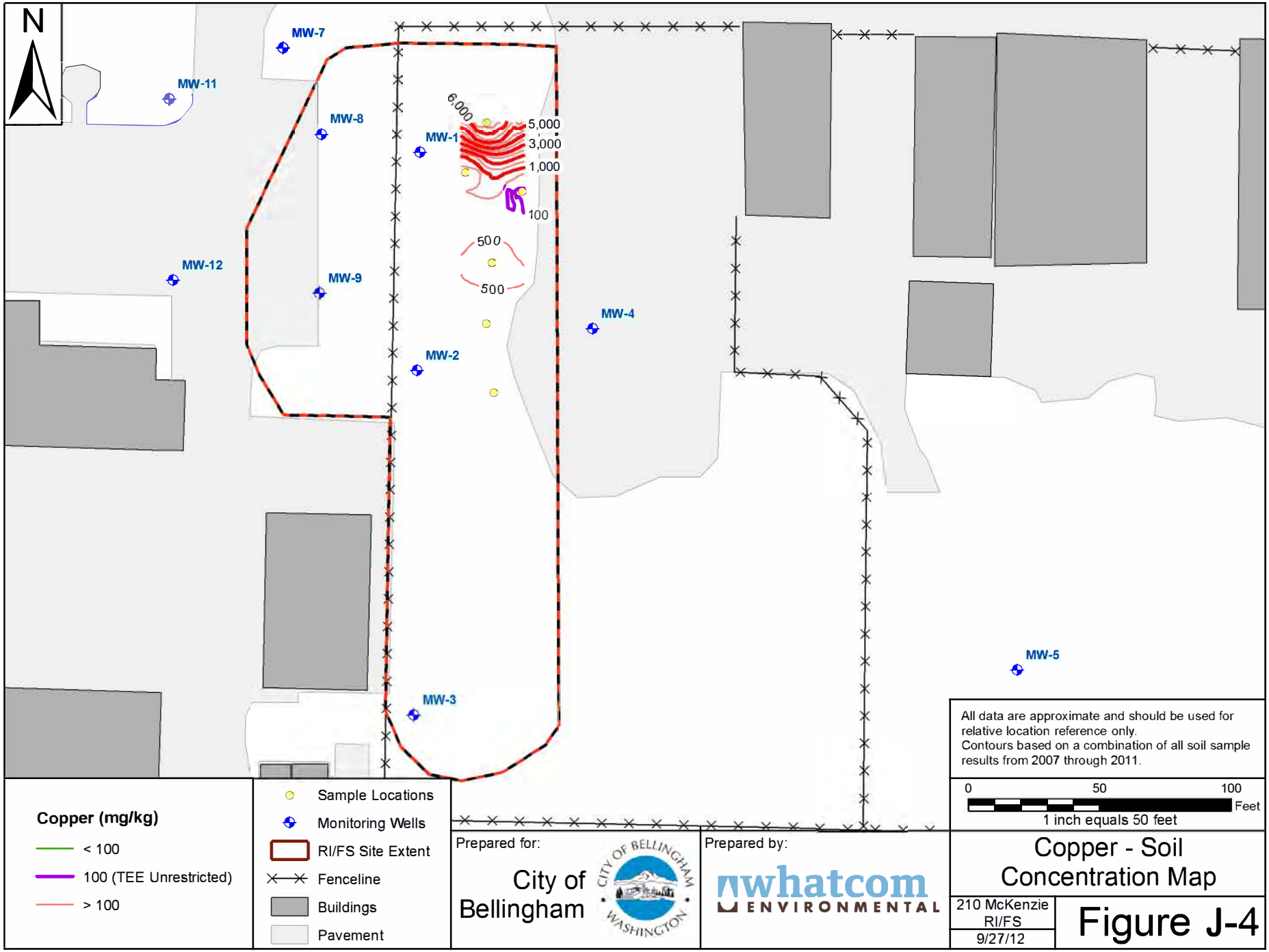
LIST OF SOIL CONTAMINANT CONCENTRATION MAPS

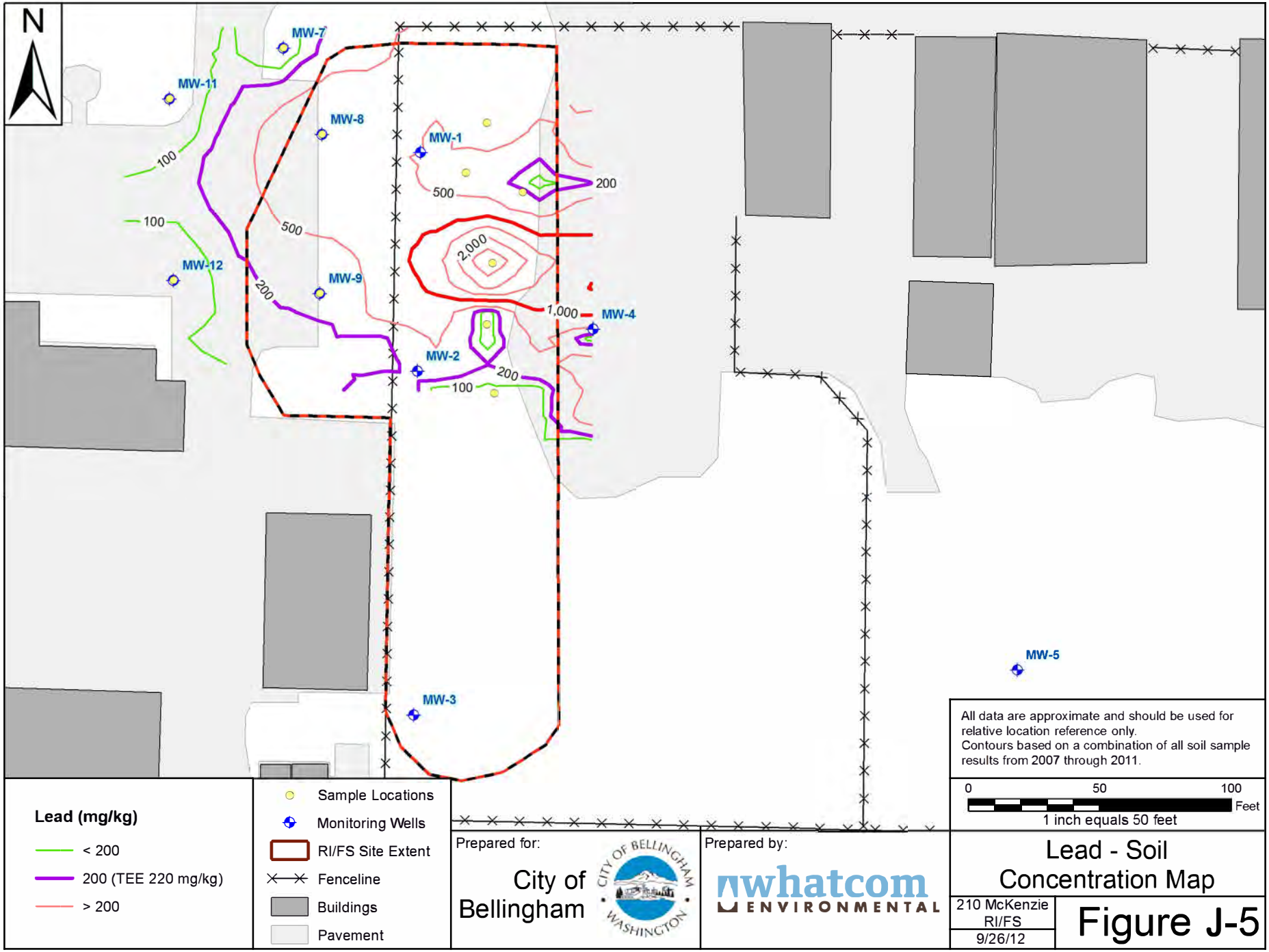
Figure J-1	Arsenic
Figure J-2	Cadmium
Figure J-3	Chromium
Figure J-4	Copper
Figure J-5	Lead
Figure J-6	Zinc
Figure J-7	Diesel Range TPH
Figure J-8	Oil Range TPH

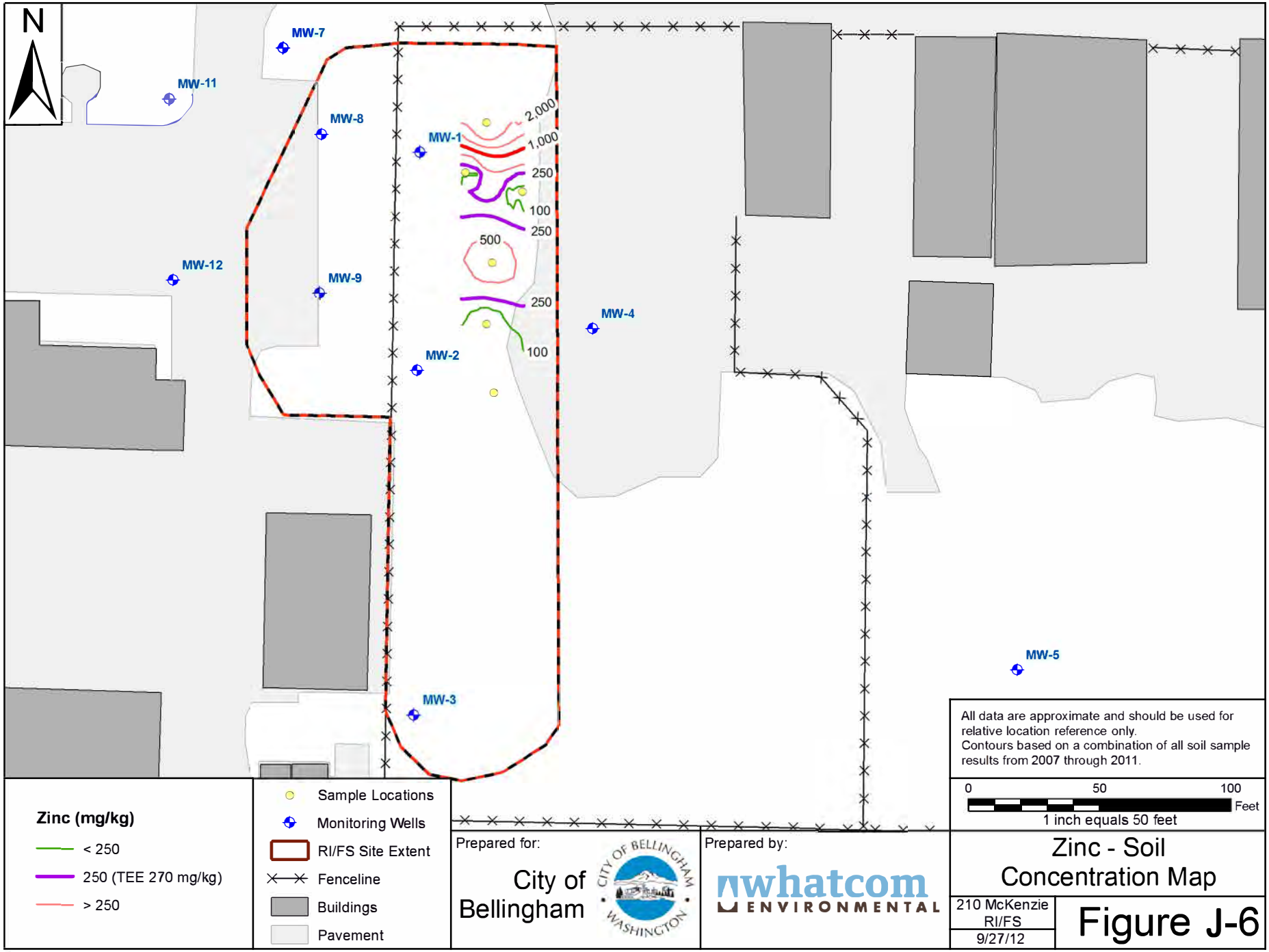

N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-5
MW-3
5
10
20
30
40
50
Arsenic (mg/kg)
< 20
20 (MTCA Method A)
> 20
Sample Locations
Monitoring Wells
Fenceline
RI/FS Site Extent
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Arsenic - Soil Concentration Map
210 McKenzie RI/FS
9/28/12
Figure J-1

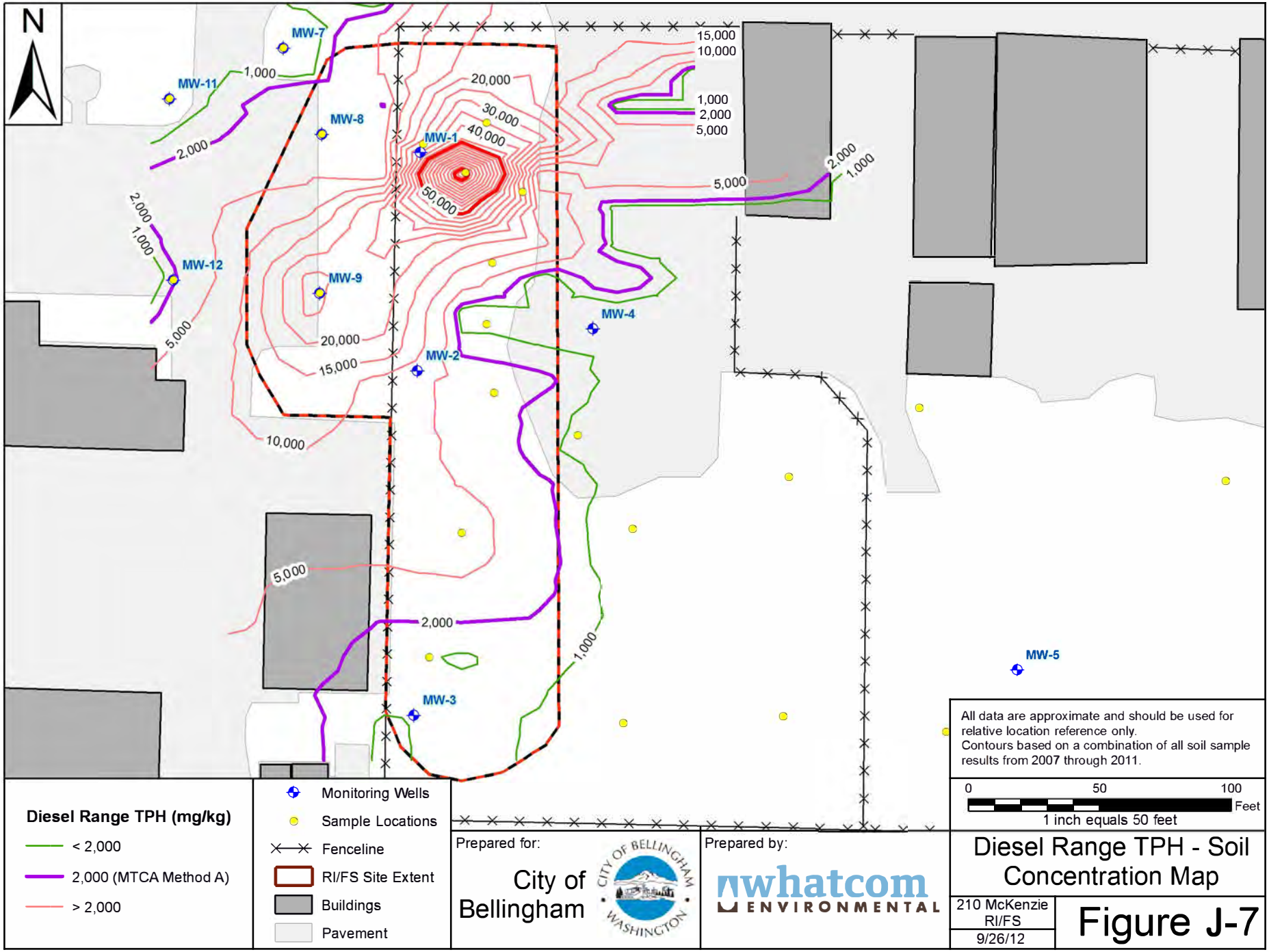

N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-3
MW-5
1
2
5
10
15
20
Cadmium (mg/kg)
< 2
2 (MTCA Method A)
> 2
Sample Locations
Monitoring Wells
RI/FS Site Extent
Fenceline
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Cadmium - Soil Concentration Map
210 McKenzie RI/FS
9/27/12
Figure J-2

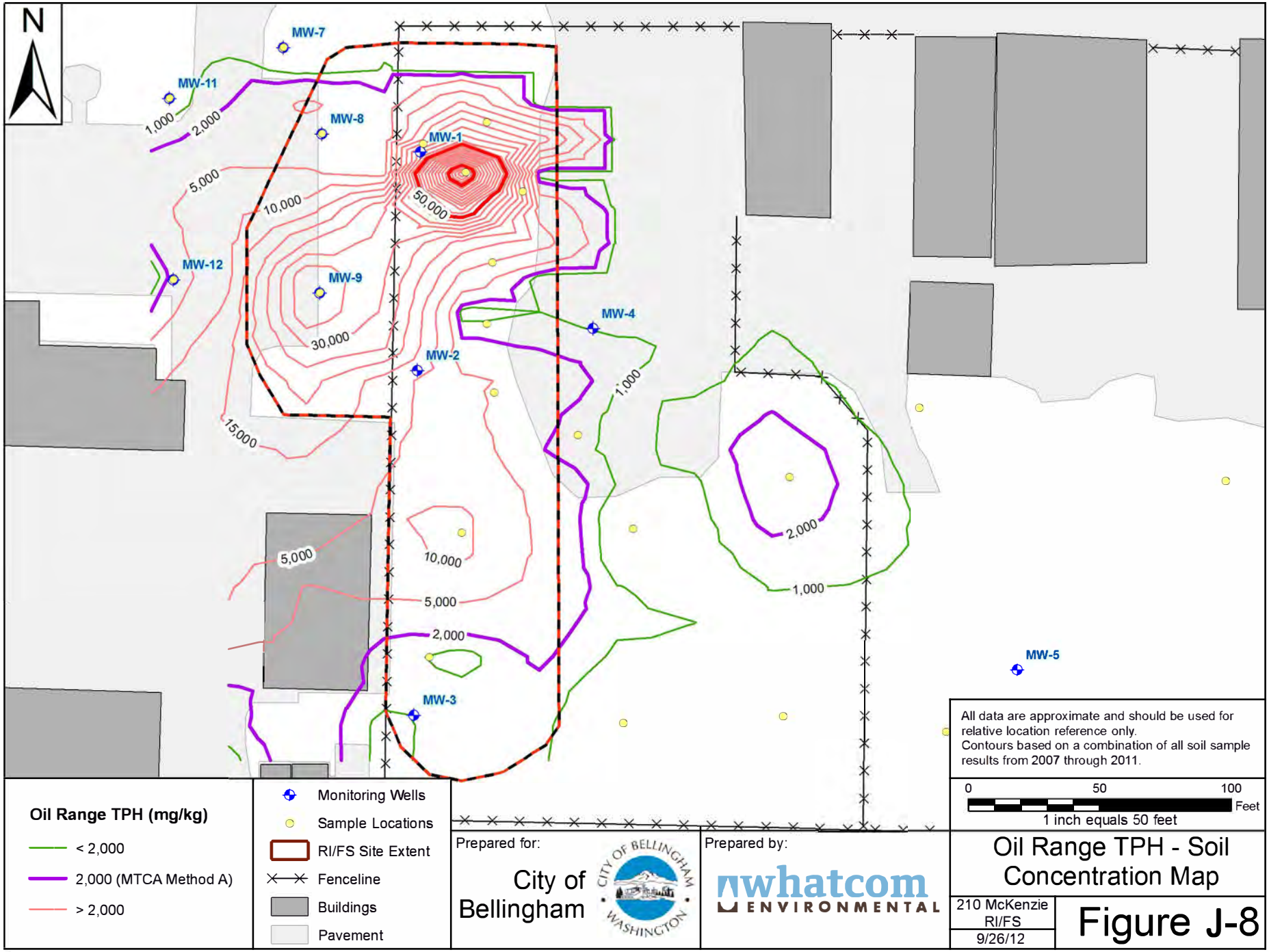

N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-3
MW-5
50
250
200
20
150
40
30
20
100
150
100
50
50
Chromium (mg/kg)
< 40
40 (TEE 42 mg/kg)
> 40
Sample Locations
Monitoring Wells
RI/FS Site Extent
Fenceline
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Chromium - Soil Concentration Map
210 McKenzie RI/FS
9/26/12
Figure J-3


N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-3
MW-5
6,000
5,000
3,000
1,000
100
500
500
Copper (mg/kg)
< 100
100 (TEE Unrestricted)
> 100
Sample Locations
Monitoring Wells
RI/FS Site Extent
Fenceline
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Copper - Soil Concentration Map
210 McKenzie RI/FS
9/27/12
Figure J-4


N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-5
MW-3
100
500
200
2,000
1,000
Lead (mg/kg)
< 200
200 (TEE 220 mg/kg)
> 200
Sample Locations
Monitoring Wells
RI/FS Site Extent
Fenceline
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
nwhatcom ENVIRONMENTAL
Lead - Soil Concentration Map
210 McKenzie RI/FS
9/26/12
Figure J-5


N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-3
MW-5
2,000
1,000
250
100
250
500
250
100
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Zinc (mg/kg)
< 250
250 (TEE 270 mg/kg)
> 250
Sample Locations
Monitoring Wells
RI/FS Site Extent
Fenceline
Buildings
Pavement
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
nwhatcom ENVIRONMENTAL
Zinc - Soil Concentration Map
210 McKenzie RI/FS
9/27/12
Figure J-6


N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-5
MW-3
1,000
2,000
5,000
10,000
15,000
20,000
30,000
40,000
50,000
Diesel Range TPH (mg/kg)
< 2,000
2,000 (MTCA Method A)
> 2,000
Monitoring Wells
Sample Locations
Fenceline
RI/FS Site Extent
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Diesel Range TPH - Soil Concentration Map
210 McKenzie RI/FS
9/26/12
Figure J-7


N
MW-7
MW-11
MW-8
MW-1
MW-12
MW-9
MW-4
MW-2
MW-5
MW-3
1,000
2,000
5,000
10,000
50,000
30,000
15,000
1,000
2,000
1,000
5,000
10,000
5,000
2,000
Oil Range TPH (mg/kg)
< 2,000
2,000 (MTCA Method A)
> 2,000
Monitoring Wells
Sample Locations
RI/FS Site Extent
Fenceline
Buildings
Pavement
All data are approximate and should be used for relative location reference only.
Contours based on a combination of all soil sample results from 2007 through 2011.
0
50
100
Feet
1 inch equals 50 feet
Prepared for:
City of Bellingham
CITY OF BELLINGHAM WASHINGTON
Prepared by:
whatcom ENVIRONMENTAL
Oil Range TPH - Soil Concentration Map
210 McKenzie RI/FS
9/26/12
Figure J-8

APPENDIX K
WASTE FLOWCHARTS

DANGEROUS WASTE DESIGNATION

Area 1* - p. 1

LISTED WASTES

Is the waste a product that has not been used or residue from clean-up of a spill of an unused product? ***[WAC 173-303-081]***

Yes ▶ Does the product contain more than one active ingredient?

Yes

No ▶ Is the ingredient listed on the "P" List in WAC 173-303-9903?

Yes ▶ The waste is a dangerous waste. Known as a "P" Listed discarded chemical product. Put the "P" number on the worksheet.

No

No ▶ Is the ingredient listed on the "U" List in WAC 173-303-9903?

Yes ▶ The waste is a dangerous waste. Known as a "U" Listed discarded chemical product. Put the "U" number on the worksheet.

No

Is the waste or the process producing the waste listed in WAC 173-303-9904? Or is the waste a residue from a clean-up of a spill of these listed wastes? Or WPCB? ***Refer to WAC 173-303-082***

Yes ▶ The waste is a dangerous waste. Known as an "F" or "K" or "W" Listed source. Put the "F" or "K" or "W" number on the worksheet.

No

CHARACTERISTIC WASTES

Is the waste a liquid with a flashpoint less than 140 F? -or-
Is the waste an ignitable solid? -or-
Is the waste an iginitable gas? -or-
Is the waste an oxidizer per 49 CFR 173.127 and 173.128?
Refer to WAC 173-303-090(5) **See Tip 1**

Yes ▶ The waste is a dangerous waste that exhibits the characteristics of ignitability. Put D001 on the worksheet.

No

Is the waste a water-based liquid with a pH less than or equal to 2.0 or greater than or equal to 12.5? -or-
Does the waste liquid corrode steel more than 0.25 in (6.35mm)/yr? -or-
The waste is solid and when mixed with 50% water has a pH less than or equal to 2.0 or greater than or equal to 12.5?
Refer to WAC 173-303-090(6)

Yes ▶ The waste is a dangerous waste that exhibits the characteristic of corrosivity. For liquids, put D002 on the worksheet. For solids, put WSC2 on the worksheet.

No pH 8.28

Does the waste have cyanide or sulfide in it? -or-
Is the waste water reactive? -or-
Is the waste unstable? -or-
Is the waste explosive?
Refer to WAC 173-303-090(7) **See Tip 2**

Yes ▶ The waste is a dangerous waste that exhibits the characteristic of reactivity. Put D003 on the worksheet.

No

Does the waste contain Toxicity Characteristic (TC) constituents from the TC List in 173-303-090(8)?

Yes ▶ Does the concentration of the TC constituents exceed the standard?

Yes ▶ The waste is a dangerous waste. Known as a TCLP waste. Put all of the "D" numbers that apply on the worksheet.

No

No Barium: 0.38 mg/L
Lead: 0.13 mg/L

You may not need to designate further under the Toxicity and/or Persistent Criteria. See below.

Did your waste designate as a "P" Listed Waste?

Note: Some "U" listed wastes may be WT01 under State Criteria, and have a 2.2 pound exclusion limit.

Yes ▶ No further designation is necessary.

No

No

Did your waste designate as a Listed or Characteristic Waste?

Yes ▶ Is the total amount of all the listed and characteristic wastes that you generate more than 220 pounds per month, or have you accumulated more than 2200 pounds of these waste types on-site?
See Tip 3

Yes ▶ Would designation under criteria change how the waste is managed?

Yes

No

No ▶ Go to Toxic Criteria Wastes

DANGEROUS WASTE DESIGNATION

Area 1* - p. 2

TOXIC CRITERIA WASTES

Is your waste an unused product?

Yes → Does it contain a "highly toxic" hazardous ingredient according to Section VI (acute and chronic health hazards section) of the MSDS?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of the whole waste?

Yes → Does the toxicity of the waste fall within one of the definitions of Toxic Category's X, A, or B in the table in WAC 173-303-100?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of some of the components in your waste?

No → You must test the toxicity of your waste. Refer to WAC 173-303-100(5)(c).

Does the toxicity of the waste fall within one of the definitions of Toxic Category's C or D in the table in WAC 173-303-100?

Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet. Go to Persistence Criteria Wastes.

No → Go to Persistent Criteria Wastes

Yes **

Determine which Toxic Category each of those components fits into from the table in WAC 173-303-100. If all of the components are less toxic than Toxic Category D, go to Persistence Criteria Wastes.

Box 1

Add together the concentrations of the components that are in the same Toxic Category and put the results below.

X		A		B		C		D	
ppm	or %	ppm	or %	ppm	or %	ppm	or %	ppm	or %
30.37		1325.67		1040.58		278.84		31.28	

Box 2

Do any of the concentrations from Box 1 equal or exceed these values?

X		A		B	
ppm	or %	ppm	or %	ppm	or %
10,000	1	100,000	10	1,000000	100

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Box 3a

Copy the % concentrations from Box 1 onto the dotted lines in the formula below, (to change ppm concentrations to %, divide the ppm value by 10,000). Place your answers on the lines in Box 3b. The % value for X from Box 1 should be copied directly to Box 3b.

%A	%B	%C	%D
0.132567	0.104058	0.027884	0.003128
+10	+100	÷1000	÷10,000

Box 3b

%X		%A		%B		%C		%D		Total
3.04E-03	+	1.33E-02	+	1.04E-03	+	2.79E-05	+	3.13E-07	=	0.0174

Does the total value from the formula equal or exceed 1.0?

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Does the total value from the formula above exceed 0.001?

Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet.

No

Go to Persistence Criteria Wastes.

PERSISTENT CRITERIA WASTES

DANGEROUS WASTE DESIGNATION

Area 1* - p. 3

Does your waste contain polycyclicaromatic hydrocarbons, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of polycyclicaromatic hydrocarbons in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP03 on the worksheet. No further designation is necessary.

No → Total Average: 223.98 mg/kg **

No

Does your waste contain halogenated organic compounds, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of halogenated organic compounds in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP01 on the worksheet. No further designation is necessary.

No → Total Average: 0.09 mg/kg **

Is the total concentration of halogenated organic compounds in your waste greater than 100 ppm or .01%?

Yes → Your waste is a dangerous waste. Known as a Persistent DW. Put WP02 on the worksheet. No further designation is necessary.

No

No

~~Your waste is not a dangerous waste.~~

WT02

* See attached table for a list of samples included in this preliminary waste designation.

** See attached table for the average detected concentrations of toxic constituents in the waste.

TIP 1
These definitions correspond to U.S. Department of Transportation (USDOT) regulations. If your waste is an unused product that has USDOT flammable, ignitable solid, oxidizer, or peroxide labels then it meets the definition of ignitable waste.

TIP 2
The definition of reactive waste and explosive waste corresponds to USDOT regulations. If your waste is an unused product that carries these warning labels then the waste meets the definition of dangerous waste.

TIP 3
If you are designating more than one waste you should designate them all to this point before you go further so you can use the total amounts to answer the question in this box.

Soil Samples included in Area 1 Preliminary Waste Designation

Sample Name	Date
TRENCH 1 6FT	04/17/07
TRENCH 2 2.5FT	04/17/07
TRENCH 2 11FT	04/17/07
TRENCH 3 4FT	04/17/07
TRENCH 3 5FT	04/17/07
TRENCH 4 4.5FT S	04/18/07
TRENCH 4 6FT N	04/18/07
TRENCH 5 5FT	04/18/07
TRENCH 6 3FT	04/18/07
TRENCH 6 8FT	04/18/07
TRENCH 7 6FT	04/19/07
TRENCH 9 4FT	04/19/07
TRENCH 10 1FT	04/19/07
TRENCH 10 7FT	04/19/07
B-8 12.5FT	05/13/10
B-9 12.5FT	05/13/10
TP2012-1	05/02/12
TP2012-2	05/02/12
TP2012-3	05/02/12
TP2012-4	05/02/12
TP2012-5	05/02/12
TP2012-6	05/02/12
B-9-20 7.5FT	10/27/20
B-9-20 10FT	10/27/20
B-3-20 12.5FT	10/28/20
B-3-20 19FT	10/28/20
B-7-20 13FT	10/28/20
B-7-20 19FT	10/28/20
TP-7-20 2FT	11/10/20
P-1 Composite	07/08/21

Average Detected Soil Sample Concentrations in Area 1

Ingredient	CAS #	TCLP Limit (mg/L)	State-Only Toxic Category	PAH	HOC	Average TCLP (mg/L)	Average Total (mg/kg)	TCLP Sample Count	Total Sample Count
Cadmium	7440-43-9	1	X	No	No		4.40	7	17
Fluoranthene	206-44-0		X	Yes	No		25.24		14
Mercury	7439-97-6	0.2	X	No	No		0.10	7	17
Silver	7440-22-4	5	X	No	No		0.63	7	14
Benzoic Acid	65-85-0		A	No	No		1.80		13
Copper	7440-50-8		A	No	No		1,207.43		7
Nickel	7440-02-0		A	No	No		76.29		7
Phenanthrene	85-01-8		A	Yes	No		40.16		14
Acenaphthene	83-32-9		B	Yes	No		50.04		14
Anthracene	120-12-7		B	Yes	No		28.16		14
Arsenic	7440-38-2	5	B	No	No		17.85	7	17
Fluorene	86-73-7		B	No	No		43.61		14
Lead	7439-92-1	5	B	No	No	0.13	411.07	7	17
Zinc	7440-66-6		B	No	No		489.86		7
1,2,4-Trimethylbenzene	95-63-6		C	No	No		0.02		11
1-Methylnaphthalene	90-12-0		C	No	No		43.40		14
Antimony	7440-36-0		C	No	No		39.04		7
Benzene	71-43-2	0.5	C	No	No		0.09	1	23
Benzo(A)Pyrene	50-32-8		C	Yes	No		5.78		14
Chromium	7440-47-3	5	C	No	No		81.79	7	17
Chrysene	218-01-9		C	Yes	No		20.51		14
Dibenzofuran	132-64-9		C	No	No		16.00		12
Naphthalene	91-20-3		C	No	No		7.58		14
Pyrene	129-00-0		C	Yes	No		21.74		14
Selenium	7782-49-2	1	C	No	No		1.60	7	14
Xylenes (Mixed)	1330-20-7		C	No	No		41.30		23
1,3,5-Trimethylbenzene	108-67-8		D	No	No		0.02		11
2-Methylnaphthalene	91-57-6		D	No	No		25.09		14
Acetone	67-64-1		D	No	No		0.59		11
Dichlorodifluoromethane	75-71-8		D	No	Yes		0.02		11
Dimethylphthalate	131-11-3		D	No	No		0.77		13
Ethylbenzene	100-41-4		D	No	No		4.30		23
Methylene Chloride	75-09-2		D	No	Yes		0.07		11
Toluene	108-88-3		D	No	No		0.42		23
Barium	7440-39-3	100	Non-toxic	No	No	0.38	70.63	7	8
Di(2-ethylhexyl) phthalate	117-81-7		Non-toxic	No	No		0.84		12
Acenaphthylene	208-96-8		No Data	Yes	No		3.65		14
Benzo(A)Anthracene	56-55-3		No Data	Yes	No		13.83		14
Benzo(B)Fluoranthene	205-99-2		No Data	Yes	No		4.52		14
Benzo(G,H,I)Perylene	191-24-2		No Data	Yes	No		2.48		14
Benzo(K)Fluoranthene	207-08-9		No Data	Yes	No		1.94		14
Dibenz(A,H)Anthracene	53-70-3		No Data	Yes	No		3.84		14
Indeno(1,2,3-Cd)Pyrene	193-39-5		No Data	Yes	No		2.10		14

DANGEROUS WASTE DESIGNATION

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LISTED WASTES

Is the waste a product that has not been used or residue from clean-up of a spill of an unused product? ***[WAC 173-303-081]***

Yes → Does the product contain more than one active ingredient?

No → Is the ingredient listed on the "P" List in WAC 173-303-9903?

Yes → The waste is a dangerous waste. Known as a "P" Listed discarded chemical product. Put the "P" number on the worksheet.

No → Is the ingredient listed on the "U" List in WAC 173-303-9903?

Yes → The waste is a dangerous waste. Known as a "U" Listed discarded chemical product. Put the "U" number on the worksheet.

No → Is the waste or the process producing the waste listed in WAC 173-303-9904? Or is the waste a residue from a clean-up of a spill of these listed wastes? Or WPCB? ***Refer to WAC 173-303-082***

Yes → The waste is a dangerous waste. Known as an "F" or "K" or "W" Listed source. Put the "F" or "K" or "W" number on the worksheet.

No

CHARACTERISTIC WASTES

Is the waste a liquid with a flashpoint less than 140 F? -or-
Is the waste an ignitable solid? -or-
Is the waste an iginitable gas? -or-
Is the waste an oxidizer per 49 CFR 173.127 and 173.128?
Refer to WAC 173-303-090(5) **See Tip 1**

Yes → The waste is a dangerous waste that exhibits the characteristics of ignitability. Put D001 on the worksheet.

No

Is the waste a water-based liquid with a pH less than or equal to 2.0 or greater than or equal to 12.5? -or-
Does the waste liquid corrode steel more than 0.25 in (6.35mm)/yr? -or-
The waste is solid and when mixed with 50% water has a pH less than or equal to 2.0 or greater than or equal to 12.5?
Refer to WAC 173-303-090(6)

Yes → The waste is a dangerous waste that exhibits the characteristic of corrosivity. For liquids, put D002 on the worksheet. For solids, put WSC2 on the worksheet.

No pH: 8.28

Does the waste have cyanide or sulfide in it? -or-
Is the waste water reactive? -or-
Is the waste unstable? -or-
Is the waste explosive?
Refer to WAC 173-303-090(7) **See Tip 2**

Yes → The waste is a dangerous waste that exhibits the characteristic of reactivity. Put D003 on the worksheet.

No

Does the waste contain Toxicity Characteristic (TC) constituents from the TC List in 173-303-090(8)?

Yes → Does the concentration of the TC constituents exceed the standard?

Yes → The waste is a dangerous waste. Known as a TCLP waste. Put all of the "D" numbers that apply on the worksheet.

No Barium: 0.41 mg/L
Lead: 0.059 mg/L

No

You may not need to designate further under the Toxicity and/or Persistent Criteria. See below.

Did your waste designate as a "P" Listed Waste?

Note: Some "U" listed wastes may be WT01 under State Criteria, and have a 2.2 pound exclusion limit.

Yes → No further designation is necessary.

No

Did your waste designate as a Listed or Characteristic Waste?

Yes → Is the total amount of all the listed and characteristic wastes that you generate more than 220 pounds per month, or have you accumulated more than 2200 pounds of these waste types on-site?
See Tip 3

Yes → Would designation under criteria change how the waste is managed?

Yes → Go to Toxic Criteria Wastes

No

No → Go to Toxic Criteria Wastes

DANGEROUS WASTE DESIGNATION

P-1 Composite - 7/8/21 - p. 2

TOXIC CRITERIA WASTES

Is your waste an unused product? — Yes → Does it contain a "highly toxic" hazardous ingredient according to Section VI (acute and chronic health hazards section) of the MSDS? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Do you know the toxicity of the whole waste? — Yes → Does the toxicity of the waste fall within one of the definitions of Toxic Category's X, A, or B in the table in WAC 173-303-100? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

No

Does the toxicity of the waste fall within one of the definitions of Toxic Category's C or D in the table in WAC 173-303-100? — Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet. Go to Persistence Criteria Wastes.

No

Do you know the toxicity of some of the components in your waste? — No → You must test the toxicity of your waste. Refer to WAC 173-303-100(5)(c).

No → Go to Persistent Criteria Wastes

Yes

Determine which Toxic Category each of those components fits into from the table in WAC 173-303-100. If all of the components are less toxic than Toxic Category D, go to Persistence Criteria Wastes.

Category X (mg/kg)
- Cadmium: 0.26
- Fluoranthene: 0.12
- Mercury: 0.029

Category A (mg/kg)
- Phenanthrene: 0.18

Category B (mg/kg)
- Arsenic: 9.4
- Lead: 37

Box 1

Add together the concentrations of the components that are in the same Toxic Category and put the results below.

X		A		B		C		D	
ppm	or %	ppm	or %	ppm	or %	ppm	or %	ppm	or %
0.41		0.18		46.40		43.18		0	

Box 2

Do any of the concentrations from Box 1 equal or exceed these values?

X		A		B	
ppm	or %	ppm	or %	ppm	or %
10,000	1	100,000	10	1,000000	100

Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Category C (mg/kg)
- Chromium: 43
- Pyrene: 0.18

Non-toxic (mg/kg)
- Barium: 110
- Di(2-ethylhexyl) phthalate: 0.28

Box 3a

Copy the % concentrations from Box 1 onto the dotted lines in the formula below, (to change ppm concentrations to %, divide the ppm value by 10,000). Place your answers on the lines in Box 3b. The % value for X from Box 1 should be copied directly to Box 3b.

%A	%B	%C	%D
0.000018	0.00464	0.004318	0
+10	+100	÷1000	÷10,000

Box 3b

%X	%A	%B	%C	%D		Total
4.09E-05	+ 1.80E-06 +	4.64E-05 +	4.32E-06 +	0	=	9.00E-05

Does the total value from the formula equal or exceed 1.0? — Yes → The waste is a dangerous waste. Known as a Toxic EHW. Put WT01 on the worksheet. No further designation is necessary.

No

Does the total value from the formula above exceed 0.001? — Yes → The waste is a dangerous waste. Known as a Toxic DW. Put WT02 on the worksheet.

No

Go to Persistence Criteria Wastes.

DANGEROUS WASTE DESIGNATION

P-1 Composite - 7/8/21 - p. 3

PERSISTENT CRITERIA WASTES

Does your waste contain polycyclicaromatic hydrocarbons, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of polycyclicaromatic hydrocarbons in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP03 on the worksheet. No further designation is necessary.

No

Fluoranthene: 0.12 mg/kg
Phenanthrene: 0.18 mg/kg
Pyrene: 0.18 mg/kg

No → Does your waste contain halogenated organic compounds, as defined in WAC 173-303-040? *[WAC 173-303-100(6)]*

Yes → Is the total concentration of halogenated organic compounds in your waste greater than 10,000 ppm or 1%?

Yes → Your waste is a dangerous waste. Known as a Persistent EHW. Put WP01 on the worksheet. No further designation is necessary.

No

Is the total concentration of halogenated organic compounds in your waste greater than 100 ppm or .01%?

Yes → Your waste is a dangerous waste. Known as a Persistent DW. Put WP02 on the worksheet. No further designation is necessary.

No

No

Your waste is not a dangerous waste.

TIP 1
These definitions correspond to U.S. Department of Transportation (USDOT) regulations. If your waste is an unused product that has USDOT flammable, ignitable solid, oxidizer, or peroxide labels then it meets the definition of ignitable waste.

TIP 2
The definition of reactive waste and explosive waste corresponds to USDOT regulations. If your waste is an unused product that carries these warning labels then the waste meets the definition of dangerous waste.

TIP 3
If you are designating more than one waste you should designate them all to this point before you go further so you can use the total amounts to answer the question in this box.

July 22, 2021

Mr. Harold Cashman
Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

Dear Mr. Cashman,

On July 9th, 1 sample was received by our laboratory and assigned our laboratory project number EV21070037. The project was identified as your COB: 210 McKenzie. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director

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ALS Group USA, Corp dba ALS Environmental

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/10/2021	KLS
TPH-Diesel Range	NWTPH-DX	**170**	120	5	MG/KG	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	**570**	250	5	MG/KG	07/12/2021	JNF
Dichlorodifluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Acetone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Butanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Chloroform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Benzene	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Trichloroethene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromomethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
Toluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Hexanone	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	5.0	1	UG/KG	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	20	1	UG/KG	07/09/2021	DLC
Styrene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
o-Xylene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromoform	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Bromobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	50	1	UG/KG	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Naphthalene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	10	1	UG/KG	07/09/2021	DLC
Vinyl Chloride (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Carbon Tetrachloride (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,1-Dichloroethene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
2-Butanone (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Chloroform (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,2-Dichloroethane (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Benzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Trichloroethene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC

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CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Tetrachloroethylene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Chlorobenzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
1,4-Dichlorobenzene (ZHE)	EPA-8260/1311	U	0.0050	1	MG/L	07/20/2021	DLC
Pyridine	EPA-8270	U	200	1	UG/KG	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Phenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Aniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Isophorone	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzoic Acid	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Naphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE: ALS JOB#: ALS SAMPLE#:	7/22/2021 EV21070037 EV21070037-01
CLIENT CONTACT:	Harold Cashman	DATE RECEIVED:	07/09/2021
CLIENT PROJECT:	COB: 210 McKenzie	COLLECTION DATE:	7/8/2021 11:30:00 AM
CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Dimethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Acenaphthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	1000	1	UG/KG	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluorene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Azobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	500	1	UG/KG	07/12/2021	JMK
Phenanthrene	EPA-8270	**180**	100	1	UG/KG	07/12/2021	JMK
Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Carbazole	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Fluoranthene	EPA-8270	**120**	100	1	UG/KG	07/12/2021	JMK
Pyrene	EPA-8270	**180**	100	1	UG/KG	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	250	1	UG/KG	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Chrysene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	**280**	100	1	UG/KG	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	100	1	UG/KG	07/12/2021	JMK
Pyridine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitrosodimethylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK

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CLIENT SAMPLE ID	P-1 Composite	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Phenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Aniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Chloroethyl)Ether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Chlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,3-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,4-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzyl Alcohol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,2-Dichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
3&4-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachloroethane (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Nitrobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Isophorone (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Nitrophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dimethylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzoic Acid (TCLP)	EPA-8270/1311	U	10	1	UG/L	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1,2,4-Trichlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Naphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chloroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,6-Dichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorobutadiene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chloro-3-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Methylnaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
1-Methylnaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorocyclopentadiene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4,6-Trichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4,5-Trichlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Chloronaphthalene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2-Nitroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Acenaphthylene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dimethylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,6-Dinitrotoluene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Acenaphthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
3-Nitroaniline (TCLP)	EPA-8270/1311	U	5.0	1	UG/L	07/14/2021	JMK
2,4-Dinitrophenol (TCLP)	EPA-8270/1311	U	10	1	UG/L	07/14/2021	JMK

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SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
4-Nitrophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dibenzofuran (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,4-Dinitrotoluene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Diethylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Fluorene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Chlorophenyl-Phenylether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Nitroaniline (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4,6-Dinitro-2-Methylphenol (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
N-Nitrosodiphenylamine (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Azobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
4-Bromophenyl-Phenylether (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Hexachlorobenzene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Pentachlorophenol (TCLP)	EPA-8270/1311	U	5.0	1	UG/L	07/14/2021	JMK
Phenanthrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Carbazole (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Di-N-Butylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Butylbenzylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[A]Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Chrysene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Di-N-Octylphthalate (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[B]Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[K]Fluoranthene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[A]Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Dibenz[A,H]Anthracene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
Benzo[G,H,I]Perylene (TCLP)	EPA-8270/1311	U	2.0	1	UG/L	07/14/2021	JMK
PCB-1016	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1221	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1232	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1242	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1248	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1254	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1260	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK
PCB-1268	EPA-8082	U	0.10	1	MG/KG	07/13/2021	JMK

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SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
pH	EPA-9045	**8.28**	± 0.01	1	S.U.	07/15/2021	RPB
Mercury	EPA-7471	**0.029**	0.020	1	MG/KG	07/14/2021	RAL
Mercury (TCLP)	EPA-7470/1311	U	0.00020	1	MG/L	07/14/2021	RAL
Arsenic	EPA-6020	**9.4**	0.20	1	MG/KG	07/09/2021	EBS
Barium	EPA-6020	**110**	0.10	1	MG/KG	07/09/2021	EBS
Cadmium	EPA-6020	**0.26**	0.10	1	MG/KG	07/09/2021	EBS
Chromium	EPA-6020	**43**	0.10	1	MG/KG	07/09/2021	EBS
Lead	EPA-6020	**37**	0.10	1	MG/KG	07/09/2021	EBS
Selenium	EPA-6020	U	1.0	1	MG/KG	07/09/2021	EBS
Silver	EPA-6020	U	0.10	1	MG/KG	07/09/2021	EBS
Arsenic (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Barium (TCLP)	EPA-6020/1311	**0.41**	0.031	6.25	MG/L	07/14/2021	RAL
Cadmium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Chromium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Lead (TCLP)	EPA-6020/1311	**0.059**	0.031	6.25	MG/L	07/14/2021	RAL
Selenium (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL
Silver (TCLP)	EPA-6020/1311	U	0.031	6.25	MG/L	07/14/2021	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**80.1**	07/10/2021	KLS
C25 5X Dilution	NWTPH-DX	**109**	07/12/2021	JNF
1,2-Dichloroethane-d4	EPA-8260	**94.1**	07/09/2021	DLC
Toluene-d8	EPA-8260	**101**	07/09/2021	DLC
4-Bromofluorobenzene	EPA-8260	**122**	07/09/2021	DLC
1,2-Dichloroethane-d4	EPA-8260/1311	**105**	07/20/2021	DLC
Toluene-d8	EPA-8260/1311	**98.0**	07/20/2021	DLC
4-Bromofluorobenzene	EPA-8260/1311	**106**	07/20/2021	DLC
2-Fluorophenol	EPA-8270	**106**	07/12/2021	JMK
Phenol-d5	EPA-8270	**97.4**	07/12/2021	JMK
Nitrobenzene-d5	EPA-8270	**84.4**	07/12/2021	JMK
2-Fluorobiphenyl	EPA-8270	**76.6**	07/12/2021	JMK
2,4,6-Tribromophenol	EPA-8270	**68.6**	07/12/2021	JMK
Terphenyl-d14	EPA-8270	**92.6**	07/12/2021	JMK
2-Fluorophenol	EPA-8270/1311	**114 GS4**	07/14/2021	JMK
Phenol-d5	EPA-8270/1311	**91.5**	07/14/2021	JMK
Nitrobenzene-d5	EPA-8270/1311	**90.2**	07/14/2021	JMK
2-Fluorobiphenyl	EPA-8270/1311	**68.3**	07/14/2021	JMK
2,4,6-Tribromophenol	EPA-8270/1311	**74.9**	07/14/2021	JMK

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SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270/1311	**130**	07/14/2021	JMK
TCMX	EPA-8082	**47.4**	07/13/2021	JMK
DCB	EPA-8082	**49.3**	07/13/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.
GS4 - Surrogate outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken. Chromatogram indicates that it is likely that sample contains light oil/lube oil.

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MBG-070921S - Batch 167837 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG	3.0	07/09/2021	KLS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167941 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	MG/KG	25	07/12/2021	JNF
TPH-Oil Range	NWTPH-DX	U	MG/KG	50	07/12/2021	JNF

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167827 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Vinyl Chloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Tetrachloride	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trichlorofluoromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Carbon Disulfide	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Acetone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,1-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Methylene Chloride	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Acrylonitrile	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Methyl T-Butyl Ether	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Butanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Cis-1,2-Dichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Chloroform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Benzene	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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CERTIFICATE OF ANALYSIS

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		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

1,2-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Methyl-2-Pentanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
Toluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Hexanone	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	07/09/2021	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Ethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
m,p-Xylene	EPA-8260	U	UG/KG	20	07/09/2021	DLC
Styrene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
o-Xylene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromoform	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Isopropylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Propyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3,5-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
T-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,4-Trimethylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
S-Butyl Benzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
P-Isopropyltoluene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
N-Butylbenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	07/09/2021	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
Naphthalene	EPA-8260	U	UG/KG	10	07/09/2021	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	07/09/2021	DLC

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		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-070921S - Batch 167827 - Soil by EPA-8260

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R388001 - Batch R388001 - TCLP Extract by EPA-8260

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Vinyl Chloride (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Carbon Tetrachloride (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,1-Dichloroethene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
2-Butanone (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Chloroform (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,2-Dichloroethane (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Benzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Trichloroethene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Tetrachloroethylene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
Chlorobenzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC
1,4-Dichlorobenzene (ZHE)	EPA-8260/1311	U	MG/L	0.0050	07/20/2021	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071221S - Batch 167890 - Soil by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/KG	200	07/12/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Phenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Aniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2-Chlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzyl Alcohol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/KG	250	07/12/2021	JMK
3&4-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachloroethane	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Nitrobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Isophorone	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

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		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071221S - Batch 167890 - Soil by EPA-8270

Benzoic Acid	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/KG	250	07/12/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Naphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chloroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorobutadiene	EPA-8270	U	UG/KG	500	07/12/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
2-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
1-Methylnaphthalene	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Chloronaphthalene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2-Nitroaniline	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dimethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Acenaphthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3-Nitroaniline	EPA-8270	U	UG/KG	1000	07/12/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitrophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenzofuran	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Diethylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluorene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Nitroaniline	EPA-8270	U	UG/KG	250	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/KG	100	07/12/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Azobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Hexachlorobenzene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Pentachlorophenol	EPA-8270	U	UG/KG	500	07/12/2021	JMK
Phenanthrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Carbazole	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

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DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY BLANK RESULTS

MB-071221S - Batch 167890 - Soil by EPA-8270

Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Butylbenzylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
3,3-Dichlorobenzidine	EPA-8270	U	UG/KG	250	07/12/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Chrysene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/KG	100	07/12/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/KG	100	07/12/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitrosodimethylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Phenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Aniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Bis(2-Chloroethyl)Ether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Chlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,3-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,4-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzyl Alcohol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,2-Dichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Bis(2-Chloroisopropyl)Ether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
3&4-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitroso-Di-N-Propylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachloroethane	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Nitrobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Isophorone	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Nitrophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dimethylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzoic Acid	EPA-8270	U	UG/L	10	07/20/2021	JMK
Bis(2-Chloroethoxy)Methane	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1,2,4-Trichlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

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CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

Naphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chloroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,6-Dichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorobutadiene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chloro-3-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Methylnaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
1-Methylnaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorocyclopentadiene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4,6-Trichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4,5-Trichlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Chloronaphthalene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2-Nitroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Acenaphthylene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dimethylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,6-Dinitrotoluene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Acenaphthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
3-Nitroaniline	EPA-8270	U	UG/L	5.0	07/20/2021	JMK
2,4-Dinitrophenol	EPA-8270	U	UG/L	10	07/20/2021	JMK
4-Nitrophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dibenzofuran	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,4-Dinitrotoluene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
2,3,4,6-Tetrachlorophenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Diethylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Fluorene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Chlorophenyl-Phenylether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Nitroaniline	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4,6-Dinitro-2-Methylphenol	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
N-Nitrosodiphenylamine	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Azobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
4-Bromophenyl-Phenylether	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Hexachlorobenzene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Pentachlorophenol	EPA-8270	U	UG/L	5.0	07/20/2021	JMK
Phenanthrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Carbazole	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Di-N-Butylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Butylbenzylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[A]Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Chrysene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY BLANK RESULTS

MB-071421TCLP - Batch R387798 - TCLP Extract by EPA-8270

Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Di-N-Octylphthalate	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[B]Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[K]Fluoranthene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[A]Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Indeno[1,2,3-Cd]Pyrene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Dibenz[A,H]Anthracene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK
Benzo[G,H,I]Perylene	EPA-8270	U	UG/L	2.0	07/20/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071221S - Batch 167897 - Soil by EPA-8082

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
PCB-1016	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1221	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1232	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1242	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1248	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1254	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1260	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK
PCB-1268	EPA-8082	U	MG/KG	0.10	07/13/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387467 - Batch R387467 - Soil by EPA-7471

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7471	U	MG/KG	0.020	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387974 - Batch R387974 - TCLP Extract by EPA-7470

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Mercury	EPA-7470	U	MG/L	0.00020	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

MB-070921S - Batch 167802 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/KG	0.20	07/09/2021	EBS
Barium	EPA-6020	U	MG/KG	0.12	07/09/2021	EBS

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LABORATORY BLANK RESULTS

MB-070921S - Batch 167802 - Soil by EPA-6020

Cadmium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Chromium	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Lead	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS
Selenium	EPA-6020	U	MG/KG	1.0	07/09/2021	EBS
Silver	EPA-6020	U	MG/KG	0.10	07/09/2021	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-R387975 - Batch R387975 - TCLP Extract by EPA-6020

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Arsenic	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Barium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Cadmium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Chromium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Lead	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Selenium	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL
Silver	EPA-6020	U	MG/L	0.0050	07/14/2021	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 167837 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	**88.5**			66.5	122.7	07/09/2021	KLS
TPH-Volatile Range - BSD	NWTPH-GX	**90.3**	**2**		66.5	122.7	07/09/2021	KLS

ALS Test Batch ID: 167941 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	**100**			75.5	122.1	07/12/2021	JNF
TPH-Diesel Range - BSD	NWTPH-DX	**98.7**	**1**		75.5	122.1	07/12/2021	JNF

ALS Test Batch ID: 167827 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane - BS	EPA-8260	**90.7**			50	150	07/09/2021	DLC
Dichlorodifluoromethane - BSD	EPA-8260	**85.9**	**5**		50	150	07/09/2021	DLC
Chloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Chloromethane - BSD	EPA-8260	**113**	**4**		50	150	07/09/2021	DLC
Vinyl Chloride - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
Vinyl Chloride - BSD	EPA-8260	**118**	**4**		50	150	07/09/2021	DLC
Bromomethane - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
Bromomethane - BSD	EPA-8260	**105**	**3**		50	150	07/09/2021	DLC
Chloroethane - BS	EPA-8260	**120**			50	150	07/09/2021	DLC
Chloroethane - BSD	EPA-8260	**115**	**5**		50	150	07/09/2021	DLC
Carbon Tetrachloride - BS	EPA-8260	**112**			50	150	07/09/2021	DLC
Carbon Tetrachloride - BSD	EPA-8260	**105**	**6**		50	150	07/09/2021	DLC
Trichlorofluoromethane - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Trichlorofluoromethane - BSD	EPA-8260	**108**	**6**		50	150	07/09/2021	DLC
Carbon Disulfide - BS	EPA-8260	**124**			50	150	07/09/2021	DLC
Carbon Disulfide - BSD	EPA-8260	**116**	**6**		50	150	07/09/2021	DLC
Acetone - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Acetone - BSD	EPA-8260	**101**	**11**		50	150	07/09/2021	DLC
1,1-Dichloroethene - BS	EPA-8260	**118**			70	130	07/09/2021	DLC
1,1-Dichloroethene - BSD	EPA-8260	**111**	**6**		70	130	07/09/2021	DLC
Methylene Chloride - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
Methylene Chloride - BSD	EPA-8260	**92.4**	**26**	SR1	50	150	07/09/2021	DLC
Acrylonitrile - BS	EPA-8260	**127**			50	150	07/09/2021	DLC
Acrylonitrile - BSD	EPA-8260	**114**	**11**		50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BS	EPA-8260	**115**			50	150	07/09/2021	DLC
Methyl T-Butyl Ether - BSD	EPA-8260	**112**	**3**		50	150	07/09/2021	DLC
Trans-1,2-Dichloroethene - BS	EPA-8260	**108**			50	150	07/09/2021	DLC

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Trans-1,2-Dichloroethene - BSD	EPA-8260	**104**	**4**		50	150	07/09/2021	DLC
1,1-Dichloroethane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,1-Dichloroethane - BSD	EPA-8260	**96.9**	**16**		50	150	07/09/2021	DLC
2-Butanone - BS	EPA-8260	**121**			50	150	07/09/2021	DLC
2-Butanone - BSD	EPA-8260	**112**	**7**		50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
Cis-1,2-Dichloroethene - BSD	EPA-8260	**103**	**9**		50	150	07/09/2021	DLC
2,2-Dichloropropane - BS	EPA-8260	**123**			50	150	07/09/2021	DLC
2,2-Dichloropropane - BSD	EPA-8260	**113**	**9**		50	150	07/09/2021	DLC
Bromochloromethane - BS	EPA-8260	**118**			50	150	07/09/2021	DLC
Bromochloromethane - BSD	EPA-8260	**111**	**6**		50	150	07/09/2021	DLC
Chloroform - BS	EPA-8260	**119**			50	150	07/09/2021	DLC
Chloroform - BSD	EPA-8260	**114**	**4**		50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BS	EPA-8260	**113**			50	150	07/09/2021	DLC
1,1,1-Trichloroethane - BSD	EPA-8260	**106**	**6**		50	150	07/09/2021	DLC
1,1-Dichloropropene - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
1,1-Dichloropropene - BSD	EPA-8260	**100**	**8**		50	150	07/09/2021	DLC
1,2-Dichloroethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
1,2-Dichloroethane - BSD	EPA-8260	**105**	**5**		50	150	07/09/2021	DLC
Benzene - BS	EPA-8260	**102**			75	138	07/09/2021	DLC
Benzene - BSD	EPA-8260	**98.5**	**4**		75	138	07/09/2021	DLC
Trichloroethene - BS	EPA-8260	**107**			75	136	07/09/2021	DLC
Trichloroethene - BSD	EPA-8260	**103**	**4**		75	136	07/09/2021	DLC
1,2-Dichloropropane - BS	EPA-8260	**114**			50	150	07/09/2021	DLC
1,2-Dichloropropane - BSD	EPA-8260	**103**	**10**		50	150	07/09/2021	DLC
Dibromomethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Dibromomethane - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Bromodichloromethane - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Bromodichloromethane - BSD	EPA-8260	**106**	**4**		50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BS	EPA-8260	**102**			50	150	07/09/2021	DLC
Trans-1,3-Dichloropropene - BSD	EPA-8260	**98.6**	**3**		50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BS	EPA-8260	**109**			50	150	07/09/2021	DLC
4-Methyl-2-Pentanone - BSD	EPA-8260	**111**	**1**		50	150	07/09/2021	DLC
Toluene - BS	EPA-8260	**104**			71.6	122.1	07/09/2021	DLC
Toluene - BSD	EPA-8260	**103**	**2**		71.6	122.1	07/09/2021	DLC
Cis-1,3-Dichloropropene - BS	EPA-8260	**110**			50	150	07/09/2021	DLC
Cis-1,3-Dichloropropene - BSD	EPA-8260	**104**	**6**		50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,1,2-Trichloroethane - BSD	EPA-8260	**96.1**	**2**		50	150	07/09/2021	DLC
2-Hexanone - BS	EPA-8260	**106**			50	150	07/09/2021	DLC

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
2-Hexanone - BSD	EPA-8260	**104**	**1**		50	150	07/09/2021	DLC
1,3-Dichloropropane - BS	EPA-8260	**96.6**			50	150	07/09/2021	DLC
1,3-Dichloropropane - BSD	EPA-8260	**99.7**	**3**		50	150	07/09/2021	DLC
Tetrachloroethylene - BS	EPA-8260	**97.1**			50	150	07/09/2021	DLC
Tetrachloroethylene - BSD	EPA-8260	**96.1**	**1**		50	150	07/09/2021	DLC
Dibromochloromethane - BS	EPA-8260	**98.8**			50	150	07/09/2021	DLC
Dibromochloromethane - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,2-Dibromoethane - BS	EPA-8260	**99.2**			50	150	07/09/2021	DLC
1,2-Dibromoethane - BSD	EPA-8260	**98.4**	**1**		50	150	07/09/2021	DLC
Chlorobenzene - BS	EPA-8260	**96.9**			79	128	07/09/2021	DLC
Chlorobenzene - BSD	EPA-8260	**96.9**	**0**		79	128	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BS	EPA-8260	**98.4**			50	150	07/09/2021	DLC
1,1,1,2-Tetrachloroethane - BSD	EPA-8260	**92.9**	**6**		50	150	07/09/2021	DLC
Ethylbenzene - BS	EPA-8260	**94.8**			50	150	07/09/2021	DLC
Ethylbenzene - BSD	EPA-8260	**94.9**	**0**		50	150	07/09/2021	DLC
m,p-Xylene - BS	EPA-8260	**91.5**			50	150	07/09/2021	DLC
m,p-Xylene - BSD	EPA-8260	**91.5**	**0**		50	150	07/09/2021	DLC
Styrene - BS	EPA-8260	**98.7**			50	150	07/09/2021	DLC
Styrene - BSD	EPA-8260	**98.9**	**0**		50	150	07/09/2021	DLC
o-Xylene - BS	EPA-8260	**98.6**			50	150	07/09/2021	DLC
o-Xylene - BSD	EPA-8260	**95.5**	**3**		50	150	07/09/2021	DLC
Bromoform - BS	EPA-8260	**106**			50	150	07/09/2021	DLC
Bromoform - BSD	EPA-8260	**107**	**1**		50	150	07/09/2021	DLC
Isopropylbenzene - BS	EPA-8260	**100**			50	150	07/09/2021	DLC
Isopropylbenzene - BSD	EPA-8260	**99.7**	**1**		50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BS	EPA-8260	**97.2**			50	150	07/09/2021	DLC
1,1,2,2-Tetrachloroethane - BSD	EPA-8260	**96.7**	**1**		50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BS	EPA-8260	**95.1**			50	150	07/09/2021	DLC
1,2,3-Trichloropropane - BSD	EPA-8260	**97.7**	**3**		50	150	07/09/2021	DLC
Bromobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Bromobenzene - BSD	EPA-8260	**95.8**	**4**		50	150	07/09/2021	DLC
N-Propyl Benzene - BS	EPA-8260	**91.9**			50	150	07/09/2021	DLC
N-Propyl Benzene - BSD	EPA-8260	**91.0**	**1**		50	150	07/09/2021	DLC
2-Chlorotoluene - BS	EPA-8260	**92.5**			50	150	07/09/2021	DLC
2-Chlorotoluene - BSD	EPA-8260	**91.6**	**1**		50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BS	EPA-8260	**92.4**			50	150	07/09/2021	DLC
1,3,5-Trimethylbenzene - BSD	EPA-8260	**92.1**	**0**		50	150	07/09/2021	DLC
4-Chlorotoluene - BS	EPA-8260	**90.5**			50	150	07/09/2021	DLC
4-Chlorotoluene - BSD	EPA-8260	**90.1**	**0**		50	150	07/09/2021	DLC
T-Butyl Benzene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC

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WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
T-Butyl Benzene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trimethylbenzene - BSD	EPA-8260	**92.5**	**0**		50	150	07/09/2021	DLC
S-Butyl Benzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
S-Butyl Benzene - BSD	EPA-8260	**93.4**	**2**		50	150	07/09/2021	DLC
P-Isopropyltoluene - BS	EPA-8260	**92.9**			50	150	07/09/2021	DLC
P-Isopropyltoluene - BSD	EPA-8260	**91.8**	**1**		50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BS	EPA-8260	**91.8**			50	150	07/09/2021	DLC
1,3-Dichlorobenzene - BSD	EPA-8260	**90.8**	**1**		50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BS	EPA-8260	**86.1**			50	150	07/09/2021	DLC
1,4-Dichlorobenzene - BSD	EPA-8260	**85.8**	**0**		50	150	07/09/2021	DLC
N-Butylbenzene - BS	EPA-8260	**93.0**			50	150	07/09/2021	DLC
N-Butylbenzene - BSD	EPA-8260	**90.4**	**3**		50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BS	EPA-8260	**94.9**			50	150	07/09/2021	DLC
1,2-Dichlorobenzene - BSD	EPA-8260	**94.5**	**0**		50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BS	EPA-8260	**94.5**			50	150	07/09/2021	DLC
1,2-Dibromo 3-Chloropropane - BSD	EPA-8260	**95.8**	**1**		50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
1,2,4-Trichlorobenzene - BSD	EPA-8260	**95.6**	**3**		50	150	07/09/2021	DLC
Hexachlorobutadiene - BS	EPA-8260	**93.6**			50	150	07/09/2021	DLC
Hexachlorobutadiene - BSD	EPA-8260	**92.0**	**2**		50	150	07/09/2021	DLC
Naphthalene - BS	EPA-8260	**92.3**			50	150	07/09/2021	DLC
Naphthalene - BSD	EPA-8260	**93.8**	**2**		50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BS	EPA-8260	**93.5**			50	150	07/09/2021	DLC
1,2,3-Trichlorobenzene - BSD	EPA-8260	**94.7**	**1**		50	150	07/09/2021	DLC

SR1 - RPD outside of control limits.

ALS Test Batch ID: R388001 - TCLP Extract by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene (ZHE) - BS	EPA-8260/1311	**119**			80.2	139	07/20/2021	DLC
1,1-Dichloroethene (ZHE) - BSD	EPA-8260/1311	**116**	**3**		80.2	139	07/20/2021	DLC
Benzene (ZHE) - BS	EPA-8260/1311	**118**			79.2	138	07/20/2021	DLC
Benzene (ZHE) - BSD	EPA-8260/1311	**115**	**3**		79.2	138	07/20/2021	DLC
Trichloroethene (ZHE) - BS	EPA-8260/1311	**134**			80	134	07/20/2021	DLC
Trichloroethene (ZHE) - BSD	EPA-8260/1311	**130**	**2**		80	134	07/20/2021	DLC
Chlorobenzene (ZHE) - BS	EPA-8260/1311	**111**			78	130	07/20/2021	DLC
Chlorobenzene (ZHE) - BSD	EPA-8260/1311	**110**	**1**		78	130	07/20/2021	DLC

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
Bellingham, WA 98225

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 167890 - Soil by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**77.9**			20	150	07/12/2021	JMK
Pyridine - BSD	EPA-8270	**92.7**	**17**		20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**90.8**			20	150	07/12/2021	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**86.1**	**5**		20	150	07/12/2021	JMK
Phenol - BS	EPA-8270	**96.9**			36.1	131	07/12/2021	JMK
Phenol - BSD	EPA-8270	**110**	**13**		36.1	131	07/12/2021	JMK
Aniline - BS	EPA-8270	**67.7**			20	150	07/12/2021	JMK
Aniline - BSD	EPA-8270	**69.6**	**3**		20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**65.5**			20	150	07/12/2021	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**87.6**	**29**		20	150	07/12/2021	JMK
2-Chlorophenol - BS	EPA-8270	**80.0**			59.9	111	07/12/2021	JMK
2-Chlorophenol - BSD	EPA-8270	**90.4**	**12**	SR1	59.9	111	07/12/2021	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**71.3**			20	150	07/12/2021	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**81.5**	**13**		20	150	07/12/2021	JMK
1,4-Dichlorobenzene - BS	EPA-8270	**70.4**			44.3	122	07/12/2021	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**79.6**	**12**		44.3	122	07/12/2021	JMK
Benzyl Alcohol - BS	EPA-8270	**83.7**			20	150	07/12/2021	JMK
Benzyl Alcohol - BSD	EPA-8270	**92.9**	**10**		20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**73.2**			20	150	07/12/2021	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**82.0**	**11**		20	150	07/12/2021	JMK
2-Methylphenol - BS	EPA-8270	**84.4**			20	150	07/12/2021	JMK
2-Methylphenol - BSD	EPA-8270	**92.4**	**9**		20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**122**	**17**		20	150	07/12/2021	JMK
3&4-Methylphenol - BS	EPA-8270	**87.5**			20	150	07/12/2021	JMK
3&4-Methylphenol - BSD	EPA-8270	**95.6**	**9**		20	150	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**87.0**			31.6	134	07/12/2021	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**80.1**	**8**		31.6	134	07/12/2021	JMK
Hexachloroethane - BS	EPA-8270	**65.0**			20	150	07/12/2021	JMK
Hexachloroethane - BSD	EPA-8270	**73.3**	**12**		20	150	07/12/2021	JMK
Nitrobenzene - BS	EPA-8270	**83.0**			20	150	07/12/2021	JMK
Nitrobenzene - BSD	EPA-8270	**96.1**	**15**		20	150	07/12/2021	JMK
Isophorone - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
Isophorone - BSD	EPA-8270	**87.2**	**14**		20	150	07/12/2021	JMK
2-Nitrophenol - BS	EPA-8270	**74.7**			20	150	07/12/2021	JMK
2-Nitrophenol - BSD	EPA-8270	**87.3**	**16**		20	150	07/12/2021	JMK
2,4-Dimethylphenol - BS	EPA-8270	**76.0**			20	150	07/12/2021	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**80.2**	**5**		20	150	07/12/2021	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**80.7**			20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

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WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**93.6**	**15**		20	150	07/12/2021	JMK
2,4-Dichlorophenol - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**89.6**	**12**		20	150	07/12/2021	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**64.2**			44.6	122	07/12/2021	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**74.4**	**15**		44.6	122	07/12/2021	JMK
Naphthalene - BS	EPA-8270	**73.5**			20	150	07/12/2021	JMK
Naphthalene - BSD	EPA-8270	**84.5**	**14**		20	150	07/12/2021	JMK
4-Chloroaniline - BS	EPA-8270	**63.6**			20	150	07/12/2021	JMK
4-Chloroaniline - BSD	EPA-8270	**79.8**	**22**		20	150	07/12/2021	JMK
Hexachlorobutadiene - BS	EPA-8270	**59.4**			20	150	07/12/2021	JMK
Hexachlorobutadiene - BSD	EPA-8270	**68.7**	**14**		20	150	07/12/2021	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**87.9**			49.2	135	07/12/2021	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**96.1**	**9**		49.2	135	07/12/2021	JMK
2-Methylnaphthalene - BS	EPA-8270	**75.2**			20	150	07/12/2021	JMK
2-Methylnaphthalene - BSD	EPA-8270	**85.1**	**12**		20	150	07/12/2021	JMK
1-Methylnaphthalene - BS	EPA-8270	**77.4**			20	150	07/12/2021	JMK
1-Methylnaphthalene - BSD	EPA-8270	**87.5**	**12**		20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**41.7**			20	150	07/12/2021	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**50.7**	**19**		20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**69.5**			20	150	07/12/2021	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**76.9**	**10**		20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**72.2**			20	150	07/12/2021	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**79.9**	**10**		20	150	07/12/2021	JMK
2-Chloronaphthalene - BS	EPA-8270	**75.8**			20	150	07/12/2021	JMK
2-Chloronaphthalene - BSD	EPA-8270	**85.0**	**11**		20	150	07/12/2021	JMK
2-Nitroaniline - BS	EPA-8270	**85.0**			20	150	07/12/2021	JMK
2-Nitroaniline - BSD	EPA-8270	**96.0**	**12**		20	150	07/12/2021	JMK
Acenaphthylene - BS	EPA-8270	**80.8**			20	150	07/12/2021	JMK
Acenaphthylene - BSD	EPA-8270	**91.5**	**12**		20	150	07/12/2021	JMK
Dimethylphthalate - BS	EPA-8270	**79.3**			20	150	07/12/2021	JMK
Dimethylphthalate - BSD	EPA-8270	**89.8**	**12**		20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**81.9**			20	150	07/12/2021	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**92.2**	**12**		20	150	07/12/2021	JMK
Acenaphthene - BS	EPA-8270	**76.1**			49.3	117	07/12/2021	JMK
Acenaphthene - BSD	EPA-8270	**85.7**	**12**		49.3	117	07/12/2021	JMK
3-Nitroaniline - BS	EPA-8270	**473**		SQ1	20	150	07/12/2021	JMK
3-Nitroaniline - BSD	EPA-8270	**562**	**17**	DUP05	20	150	07/12/2021	JMK
2,4-Dinitrophenol - BS	EPA-8270	**89.6**			20	150	07/12/2021	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**106**	**16**		20	150	07/12/2021	JMK
4-Nitrophenol - BS	EPA-8270	**68.6**			29.8	137	07/12/2021	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4-Nitrophenol - BSD	EPA-8270	**79.9**	**15**		29.8	137	07/12/2021	JMK
Dibenzofuran - BS	EPA-8270	**79.2**			20	150	07/12/2021	JMK
Dibenzofuran - BSD	EPA-8270	**88.2**	**11**		20	150	07/12/2021	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**85.8**			55.3	130	07/12/2021	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**98.2**	**13**		55.3	130	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**69.0**			20	150	07/12/2021	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**78.5**	**13**		20	150	07/12/2021	JMK
Diethylphthalate - BS	EPA-8270	**82.8**			20	150	07/12/2021	JMK
Diethylphthalate - BSD	EPA-8270	**93.9**	**13**		20	150	07/12/2021	JMK
Fluorene - BS	EPA-8270	**81.3**			20	150	07/12/2021	JMK
Fluorene - BSD	EPA-8270	**90.9**	**11**		20	150	07/12/2021	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**73.3**			20	150	07/12/2021	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**83.0**	**12**		20	150	07/12/2021	JMK
4-Nitroaniline - BS	EPA-8270	**189**		SQ1	20	150	07/12/2021	JMK
4-Nitroaniline - BSD	EPA-8270	**207**	**9**	DUP05	20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**96.1**			20	150	07/12/2021	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**112**	**16**		20	150	07/12/2021	JMK
Azobenzene - BS	EPA-8270	**100**			20	150	07/12/2021	JMK
Azobenzene - BSD	EPA-8270	**115**	**14**		20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**68.1**			20	150	07/12/2021	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**78.2**	**14**		20	150	07/12/2021	JMK
Hexachlorobenzene - BS	EPA-8270	**68.8**			20	150	07/12/2021	JMK
Hexachlorobenzene - BSD	EPA-8270	**78.2**	**13**		20	150	07/12/2021	JMK
Pentachlorophenol - BS	EPA-8270	**62.6**			41.3	113	07/12/2021	JMK
Pentachlorophenol - BSD	EPA-8270	**72.8**	**15**		41.3	113	07/12/2021	JMK
Phenanthrene - BS	EPA-8270	**82.0**			20	150	07/12/2021	JMK
Phenanthrene - BSD	EPA-8270	**93.2**	**13**		20	150	07/12/2021	JMK
Anthracene - BS	EPA-8270	**78.6**			20	150	07/12/2021	JMK
Anthracene - BSD	EPA-8270	**92.4**	**16**		20	150	07/12/2021	JMK
Carbazole - BS	EPA-8270	**169**		SQ1	20	150	07/12/2021	JMK
Carbazole - BSD	EPA-8270	**181**	**7**	DUP05	20	150	07/12/2021	JMK
Di-N-Butylphthalate - BS	EPA-8270	**87.2**			20	150	07/12/2021	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**102**	**15**		20	150	07/12/2021	JMK
Fluoranthene - BS	EPA-8270	**79.5**			20	150	07/12/2021	JMK
Fluoranthene - BSD	EPA-8270	**88.8**	**11**		20	150	07/12/2021	JMK
Pyrene - BS	EPA-8270	**91.8**			57.4	145	07/12/2021	JMK
Pyrene - BSD	EPA-8270	**107**	**15**		57.4	145	07/12/2021	JMK
Butylbenzylphthalate - BS	EPA-8270	**103**			20	150	07/12/2021	JMK
Butylbenzylphthalate - BSD	EPA-8270	**121**	**16**		20	150	07/12/2021	JMK
Benzo[A]Anthracene - BS	EPA-8270	**79.7**			20	150	07/12/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT:	Whatcom Environmental Svcs., Inc. 228 E. Champion St., Suite 101 Bellingham, WA 98225	DATE:	7/22/2021
		ALS SDG#:	EV21070037
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Harold Cashman		
CLIENT PROJECT:	COB: 210 McKenzie		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Anthracene - BSD	EPA-8270	**90.8**	**13**		20	150	07/12/2021	JMK
Chrysene - BS	EPA-8270	**77.2**			20	150	07/12/2021	JMK
Chrysene - BSD	EPA-8270	**89.2**	**14**		20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**101**			20	150	07/12/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**119**	**16**		20	150	07/12/2021	JMK
Di-N-Octylphthalate - BS	EPA-8270	**98.2**			20	150	07/12/2021	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**112**	**13**		20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**89.0**			20	150	07/12/2021	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**101**	**13**		20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**83.3**			20	150	07/12/2021	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**95.4**	**14**		20	150	07/12/2021	JMK
Benzo[A]Pyrene - BS	EPA-8270	**84.2**			20	150	07/12/2021	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**97.1**	**14**		20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**67.8**			20	150	07/12/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**82.2**	**19**		20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BS	EPA-8270	**68.6**			20	150	07/12/2021	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**84.1**	**20**		20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**70.0**			20	150	07/12/2021	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**83.4**	**18**		20	150	07/12/2021	JMK

DUP05 - LCS/LCSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.
SR1 - RPD outside of control limits.

ALS Test Batch ID: R387798 - TCLP Extract by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Pyridine - BS	EPA-8270	**89.6**			20	150	07/14/2021	JMK
Pyridine - BSD	EPA-8270	**100**	**11**		20	150	07/14/2021	JMK
N-Nitrosodimethylamine - BS	EPA-8270	**88.8**			20	150	07/14/2021	JMK
N-Nitrosodimethylamine - BSD	EPA-8270	**81.8**	**8**		20	150	07/14/2021	JMK
Phenol - BS	EPA-8270	**79.0**			5	84	07/14/2021	JMK
Phenol - BSD	EPA-8270	**74.2**	**6**		5	84	07/14/2021	JMK
Aniline - BS	EPA-8270	**217**		SQ1	20	150	07/14/2021	JMK
Aniline - BSD	EPA-8270	**221**	**2**	SQ1	20	150	07/14/2021	JMK
Bis(2-Chloroethyl)Ether - BS	EPA-8270	**136**			20	150	07/14/2021	JMK
Bis(2-Chloroethyl)Ether - BSD	EPA-8270	**140**	**3**		20	150	07/14/2021	JMK
2-Chlorophenol - BS	EPA-8270	**85.6**			45	111	07/14/2021	JMK
2-Chlorophenol - BSD	EPA-8270	**79.5**	**7**		45	111	07/14/2021	JMK
1,3-Dichlorobenzene - BS	EPA-8270	**72.3**			20	150	07/14/2021	JMK
1,3-Dichlorobenzene - BSD	EPA-8270	**72.2**	**0**		20	150	07/14/2021	JMK

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CERTIFICATE OF ANALYSIS

CLIENT: Whatcom Environmental Svcs., Inc.
228 E. Champion St., Suite 101
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DATE: 7/22/2021
ALS SDG#: EV21070037
WDOE ACCREDITATION: C601

CLIENT CONTACT: Harold Cashman
CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1,4-Dichlorobenzene - BS	EPA-8270	**73.9**			27.1	114	07/14/2021	JMK
1,4-Dichlorobenzene - BSD	EPA-8270	**72.7**	**2**		27.1	114	07/14/2021	JMK
Benzyl Alcohol - BS	EPA-8270	**89.5**			20	150	07/14/2021	JMK
Benzyl Alcohol - BSD	EPA-8270	**88.1**	**2**		20	150	07/14/2021	JMK
1,2-Dichlorobenzene - BS	EPA-8270	**76.6**			20	150	07/14/2021	JMK
1,2-Dichlorobenzene - BSD	EPA-8270	**74.0**	**3**		20	150	07/14/2021	JMK
2-Methylphenol - BS	EPA-8270	**92.5**			20	150	07/14/2021	JMK
2-Methylphenol - BSD	EPA-8270	**89.7**	**3**		20	150	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether - BS	EPA-8270	**131**			20	150	07/14/2021	JMK
Bis(2-Chloroisopropyl)Ether - BSD	EPA-8270	**124**	**6**		20	150	07/14/2021	JMK
3&4-Methylphenol - BS	EPA-8270	**90.4**			20	150	07/14/2021	JMK
3&4-Methylphenol - BSD	EPA-8270	**86.2**	**5**		20	150	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine - BS	EPA-8270	**93.4**			42.2	119	07/14/2021	JMK
N-Nitroso-Di-N-Propylamine - BSD	EPA-8270	**83.2**	**12**		42.2	119	07/14/2021	JMK
Hexachloroethane - BS	EPA-8270	**66.3**			20	150	07/14/2021	JMK
Hexachloroethane - BSD	EPA-8270	**65.2**	**2**		20	150	07/14/2021	JMK
Nitrobenzene - BS	EPA-8270	**98.9**			20	150	07/14/2021	JMK
Nitrobenzene - BSD	EPA-8270	**95.9**	**3**		20	150	07/14/2021	JMK
Isophorone - BS	EPA-8270	**88.2**			20	150	07/14/2021	JMK
Isophorone - BSD	EPA-8270	**83.9**	**5**		20	150	07/14/2021	JMK
2-Nitrophenol - BS	EPA-8270	**109**			20	150	07/14/2021	JMK
2-Nitrophenol - BSD	EPA-8270	**99.5**	**9**		20	150	07/14/2021	JMK
2,4-Dimethylphenol - BS	EPA-8270	**84.7**			20	150	07/14/2021	JMK
2,4-Dimethylphenol - BSD	EPA-8270	**79.5**	**6**		20	150	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane - BS	EPA-8270	**95.2**			20	150	07/14/2021	JMK
Bis(2-Chloroethoxy)Methane - BSD	EPA-8270	**91.0**	**4**		20	150	07/14/2021	JMK
2,4-Dichlorophenol - BS	EPA-8270	**82.4**			20	150	07/14/2021	JMK
2,4-Dichlorophenol - BSD	EPA-8270	**75.8**	**8**		20	150	07/14/2021	JMK
1,2,4-Trichlorobenzene - BS	EPA-8270	**71.1**			29.4	120	07/14/2021	JMK
1,2,4-Trichlorobenzene - BSD	EPA-8270	**68.3**	**4**		29.4	120	07/14/2021	JMK
Naphthalene - BS	EPA-8270	**82.7**			20	150	07/14/2021	JMK
Naphthalene - BSD	EPA-8270	**78.9**	**5**		20	150	07/14/2021	JMK
4-Chloroaniline - BS	EPA-8270	**71.9**			20	150	07/14/2021	JMK
4-Chloroaniline - BSD	EPA-8270	**73.6**	**2**		20	150	07/14/2021	JMK
Hexachlorobutadiene - BS	EPA-8270	**64.5**			20	150	07/14/2021	JMK
Hexachlorobutadiene - BSD	EPA-8270	**61.2**	**5**		20	150	07/14/2021	JMK
4-Chloro-3-Methylphenol - BS	EPA-8270	**95.8**			44	113	07/14/2021	JMK
4-Chloro-3-Methylphenol - BSD	EPA-8270	**89.5**	**7**		44	113	07/14/2021	JMK
2-Methylnaphthalene - BS	EPA-8270	**83.4**			20	150	07/14/2021	JMK
2-Methylnaphthalene - BSD	EPA-8270	**79.9**	**4**		20	150	07/14/2021	JMK

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CLIENT PROJECT: COB: 210 McKenzie

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
1-Methylnaphthalene - BS	EPA-8270	**86.9**			20	150	07/14/2021	JMK
1-Methylnaphthalene - BSD	EPA-8270	**82.1**	**6**		20	150	07/14/2021	JMK
Hexachlorocyclopentadiene - BS	EPA-8270	**40.8**			20	150	07/14/2021	JMK
Hexachlorocyclopentadiene - BSD	EPA-8270	**42.6**	**4**		20	150	07/14/2021	JMK
2,4,6-Trichlorophenol - BS	EPA-8270	**66.7**			20	150	07/14/2021	JMK
2,4,6-Trichlorophenol - BSD	EPA-8270	**60.2**	**10**		20	150	07/14/2021	JMK
2,4,5-Trichlorophenol - BS	EPA-8270	**72.0**			20	150	07/14/2021	JMK
2,4,5-Trichlorophenol - BSD	EPA-8270	**64.1**	**12**		20	150	07/14/2021	JMK
2-Chloronaphthalene - BS	EPA-8270	**84.9**			20	150	07/14/2021	JMK
2-Chloronaphthalene - BSD	EPA-8270	**82.8**	**3**		20	150	07/14/2021	JMK
2-Nitroaniline - BS	EPA-8270	**96.0**			20	150	07/14/2021	JMK
2-Nitroaniline - BSD	EPA-8270	**94.0**	**2**		20	150	07/14/2021	JMK
Acenaphthylene - BS	EPA-8270	**91.6**			20	150	07/14/2021	JMK
Acenaphthylene - BSD	EPA-8270	**88.0**	**4**		20	150	07/14/2021	JMK
Dimethylphthalate - BS	EPA-8270	**92.3**			20	150	07/14/2021	JMK
Dimethylphthalate - BSD	EPA-8270	**88.7**	**4**		20	150	07/14/2021	JMK
2,6-Dinitrotoluene - BS	EPA-8270	**92.9**			20	150	07/14/2021	JMK
2,6-Dinitrotoluene - BSD	EPA-8270	**90.4**	**3**		20	150	07/14/2021	JMK
Acenaphthene - BS	EPA-8270	**87.1**			41	107	07/14/2021	JMK
Acenaphthene - BSD	EPA-8270	**83.6**	**4**		41	107	07/14/2021	JMK
3-Nitroaniline - BS	EPA-8270	**160**		SQ1	20	150	07/14/2021	JMK
3-Nitroaniline - BSD	EPA-8270	**197**	**21**	SQ1	20	150	07/14/2021	JMK
2,4-Dinitrophenol - BS	EPA-8270	**78.5**			20	150	07/14/2021	JMK
2,4-Dinitrophenol - BSD	EPA-8270	**74.2**	**6**		20	150	07/14/2021	JMK
4-Nitrophenol - BS	EPA-8270	**40.9**			5	63	07/14/2021	JMK
4-Nitrophenol - BSD	EPA-8270	**37.2**	**9**		5	63	07/14/2021	JMK
Dibenzofuran - BS	EPA-8270	**88.9**			20	150	07/14/2021	JMK
Dibenzofuran - BSD	EPA-8270	**86.1**	**3**		20	150	07/14/2021	JMK
2,4-Dinitrotoluene - BS	EPA-8270	**95.0**			53.1	136	07/14/2021	JMK
2,4-Dinitrotoluene - BSD	EPA-8270	**92.5**	**3**		53.1	136	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol - BS	EPA-8270	**64.3**			20	150	07/14/2021	JMK
2,3,4,6-Tetrachlorophenol - BSD	EPA-8270	**57.1**	**12**		20	150	07/14/2021	JMK
Diethylphthalate - BS	EPA-8270	**96.4**			20	150	07/14/2021	JMK
Diethylphthalate - BSD	EPA-8270	**92.8**	**4**		20	150	07/14/2021	JMK
Fluorene - BS	EPA-8270	**89.2**			20	150	07/14/2021	JMK
Fluorene - BSD	EPA-8270	**87.4**	**2**		20	150	07/14/2021	JMK
4-Chlorophenyl-Phenylether - BS	EPA-8270	**82.3**			20	150	07/14/2021	JMK
4-Chlorophenyl-Phenylether - BSD	EPA-8270	**80.0**	**3**		20	150	07/14/2021	JMK
4-Nitroaniline - BS	EPA-8270	**122**			20	150	07/14/2021	JMK
4-Nitroaniline - BSD	EPA-8270	**121**	**0**		20	150	07/14/2021	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
4,6-Dinitro-2-Methylphenol - BS	EPA-8270	**93.9**			20	150	07/14/2021	JMK
4,6-Dinitro-2-Methylphenol - BSD	EPA-8270	**85.6**	**9**		20	150	07/14/2021	JMK
Azobenzene - BS	EPA-8270	**121**			20	150	07/14/2021	JMK
Azobenzene - BSD	EPA-8270	**116**	**5**		20	150	07/14/2021	JMK
4-Bromophenyl-Phenylether - BS	EPA-8270	**80.2**			20	150	07/14/2021	JMK
4-Bromophenyl-Phenylether - BSD	EPA-8270	**75.9**	**6**		20	150	07/14/2021	JMK
Hexachlorobenzene - BS	EPA-8270	**80.6**			20	150	07/14/2021	JMK
Hexachlorobenzene - BSD	EPA-8270	**75.6**	**6**		20	150	07/14/2021	JMK
Pentachlorophenol - BS	EPA-8270	**57.5**			33	124	07/14/2021	JMK
Pentachlorophenol - BSD	EPA-8270	**52.0**	**10**		33	124	07/14/2021	JMK
Phenanthrene - BS	EPA-8270	**94.2**			20	150	07/14/2021	JMK
Phenanthrene - BSD	EPA-8270	**89.4**	**5**		20	150	07/14/2021	JMK
Anthracene - BS	EPA-8270	**94.2**			20	150	07/14/2021	JMK
Anthracene - BSD	EPA-8270	**89.9**	**5**		20	150	07/14/2021	JMK
Carbazole - BS	EPA-8270	**71.7**			20	150	07/14/2021	JMK
Carbazole - BSD	EPA-8270	**69.2**	**4**		20	150	07/14/2021	JMK
Di-N-Butylphthalate - BS	EPA-8270	**104**			20	150	07/14/2021	JMK
Di-N-Butylphthalate - BSD	EPA-8270	**98.1**	**6**		20	150	07/14/2021	JMK
Fluoranthene - BS	EPA-8270	**88.3**			20	150	07/14/2021	JMK
Fluoranthene - BSD	EPA-8270	**83.2**	**6**		20	150	07/14/2021	JMK
Pyrene - BS	EPA-8270	**122**			18	136	07/14/2021	JMK
Pyrene - BSD	EPA-8270	**111**	**9**		18	136	07/14/2021	JMK
Butylbenzylphthalate - BS	EPA-8270	**135**			20	150	07/14/2021	JMK
Butylbenzylphthalate - BSD	EPA-8270	**123**	**9**		20	150	07/14/2021	JMK
Benzo[A]Anthracene - BS	EPA-8270	**91.3**			20	150	07/14/2021	JMK
Benzo[A]Anthracene - BSD	EPA-8270	**87.2**	**5**		20	150	07/14/2021	JMK
Chrysene - BS	EPA-8270	**90.7**			20	150	07/14/2021	JMK
Chrysene - BSD	EPA-8270	**86.7**	**5**		20	150	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	**131**			20	150	07/14/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	**122**	**7**		20	150	07/14/2021	JMK
Di-N-Octylphthalate - BS	EPA-8270	**114**			20	150	07/14/2021	JMK
Di-N-Octylphthalate - BSD	EPA-8270	**107**	**7**		20	150	07/14/2021	JMK
Benzo[B]Fluoranthene - BS	EPA-8270	**102**			20	150	07/14/2021	JMK
Benzo[B]Fluoranthene - BSD	EPA-8270	**97.5**	**4**		20	150	07/14/2021	JMK
Benzo[K]Fluoranthene - BS	EPA-8270	**99.4**			20	150	07/14/2021	JMK
Benzo[K]Fluoranthene - BSD	EPA-8270	**95.0**	**5**		20	150	07/14/2021	JMK
Benzo[A]Pyrene - BS	EPA-8270	**97.1**			20	150	07/14/2021	JMK
Benzo[A]Pyrene - BSD	EPA-8270	**94.1**	**3**		20	150	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BS	EPA-8270	**73.4**			20	150	07/14/2021	JMK
Indeno[1,2,3-Cd]Pyrene - BSD	EPA-8270	**72.1**	**2**		20	150	07/14/2021	JMK

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Dibenz[A,H]Anthracene - BS	EPA-8270	**68.1**			20	150	07/14/2021	JMK
Dibenz[A,H]Anthracene - BSD	EPA-8270	**67.1**	**1**		20	150	07/14/2021	JMK
Benzo[G,H,I]Perylene - BS	EPA-8270	**68.5**			20	150	07/14/2021	JMK
Benzo[G,H,I]Perylene - BSD	EPA-8270	**67.5**	**1**		20	150	07/14/2021	JMK

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: 167897 - Soil by EPA-8082

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
PCB-1016 - BS	EPA-8082	**67.7**			50	150	07/13/2021	JMK
PCB-1016 - BSD	EPA-8082	**71.5**	**5**		50	150	07/13/2021	JMK
PCB-1260 - BS	EPA-8082	**73.7**			50	150	07/13/2021	JMK
PCB-1260 - BSD	EPA-8082	**80.6**	**9**		50	150	07/13/2021	JMK

ALS Test Batch ID: R387467 - Soil by EPA-7471

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7471	**109**			81.8	117	07/14/2021	RAL
Mercury - BSD	EPA-7471	**107**	**1**		81.8	117	07/14/2021	RAL

ALS Test Batch ID: R387974 - TCLP Extract by EPA-7470

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Mercury - BS	EPA-7470	**106**			85	115	07/14/2021	RAL
Mercury - BSD	EPA-7470	**107**	**1**		85	115	07/14/2021	RAL

ALS Test Batch ID: 167802 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**99.0**			80	120	07/09/2021	EBS
Arsenic - BSD	EPA-6020	**97.0**	**2**		80	120	07/09/2021	EBS
Barium - BS	EPA-6020	**101**			80	120	07/09/2021	EBS
Barium - BSD	EPA-6020	**98.3**	**3**		80	120	07/09/2021	EBS
Cadmium - BS	EPA-6020	**105**			80	120	07/09/2021	EBS
Cadmium - BSD	EPA-6020	**102**	**3**		80	120	07/09/2021	EBS
Chromium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS
Chromium - BSD	EPA-6020	**97.5**	**3**		80	120	07/09/2021	EBS
Lead - BS	EPA-6020	**98.3**			80	120	07/09/2021	EBS
Lead - BSD	EPA-6020	**96.5**	**2**		80	120	07/09/2021	EBS
Selenium - BS	EPA-6020	**100**			80	120	07/09/2021	EBS

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LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Selenium - BSD	EPA-6020	**97.2**	**3**		80	120	07/09/2021	EBS
Silver - BS	EPA-6020	**107**			80	120	07/09/2021	EBS
Silver - BSD	EPA-6020	**103**	**3**		80	120	07/09/2021	EBS

ALS Test Batch ID: R387975 - TCLP Extract by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS MIN	LIMITS MAX	ANALYSIS DATE	ANALYSIS BY
Arsenic - BS	EPA-6020	**97.0**			89.1	110	07/14/2021	RAL
Arsenic - BSD	EPA-6020	**98.0**	**1**		89.1	110	07/14/2021	RAL
Barium - BS	EPA-6020	**98.0**			88.5	108	07/14/2021	RAL
Barium - BSD	EPA-6020	**98.0**	**0**		88.5	108	07/14/2021	RAL
Cadmium - BS	EPA-6020	**103**			89.4	109	07/14/2021	RAL
Cadmium - BSD	EPA-6020	**103**	**0**		89.4	109	07/14/2021	RAL
Chromium - BS	EPA-6020	**103**			86.2	107	07/14/2021	RAL
Chromium - BSD	EPA-6020	**101**	**2**		86.2	107	07/14/2021	RAL
Lead - BS	EPA-6020	**100**			87.5	107	07/14/2021	RAL
Lead - BSD	EPA-6020	**100**	**0**		87.5	107	07/14/2021	RAL
Selenium - BS	EPA-6020	**98.0**			90.2	113	07/14/2021	RAL
Selenium - BSD	EPA-6020	**99.0**	**1**		90.2	113	07/14/2021	RAL
Silver - BS	EPA-6020	**107**			80	120	07/14/2021	RAL
Silver - BSD	EPA-6020	**107**	**0**		80	120	07/14/2021	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only): EV2107037

Date 7/8/21 Page 1 Of 1

PROJECT ID: COB: 210 McKenzie
REPORT TO COMPANY: Whatcom Environmental Services
PROJECT MANAGER: Harold Cashman
ADDRESS: 228 E. Champion St. #101
Bellingham, WA 98225
PHONE: 360 752-9571 P.O. #:
E-MAIL:
INVOICE TO COMPANY: Same as above
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA 8021 ☐ BTEX by EPA 8260 ☐	MTBE by EPA 8021 ☐ MTBE by EPA 8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	PCB by EPA 8082 ☐ Pesticides by EPA 8081 ☐	Metals-MTCA-5 ☐ RCRA-8 ☒ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☒ VOA ☒ Semi-Vol ☒ Pest ☐ Herbs ☐	OTHER (Specify): PCBs	pH	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. P-1 Composite	7/8/21	11:30	Soil	1		X	X				X			X			X		X	X	X		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
8.																							
9.																							
10.																							

SPECIAL INSTRUCTIONS: Sample collected via Method 5035A

SIGNATURES (Name, Company, Date, Time):
1. Relinquished By: [signature] WES 7-9-21 10:10
Received By: [signature] ALS 7-9-21 1010
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*
Organic, Metals & Inorganic Analysis: [10] Standard | 5 | 3 | 2 | 1 | SAME DAY
Fuels & Hydrocarbon Analysis: [5] Standard | 3 | 1 | SAME DAY
OTHER: Specify:

*Turnaround request less than standard may incur Rush Charges

Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID: P-1 Composite

Report date: July 21, 2021

Submitted to:

Whatcom Environmental
228 E. Champion Suite 101
Bellingham, WA 98225

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on one sample submitted by Whatcom Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The sample, identified as P-1 Composite, was received in the laboratory on July 9, 2021. Upon arrival at the laboratory the sample was inspected and contents verified against information provided on the chain-of-custody form. The sample was stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test number	2107-022
Sample ID	P-1 Composite
Test initiation date; time	7/16/2021; 0945h
Test termination date; time	7/21/2021; 0945h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L Plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The sample was tested using fish received on July 6, 2021.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	32 days post swim-up (hatch date 5/21/2021)
Mean weight	0.31 g
Mean length	31 mm
Ratio of longest to shortest	1.3
Loading	0.51 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on sample P-1 Composite is contained in Table 3. There was no mortality during the test. Based on these results, the sample does not designate as either a dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
P-1 Composite	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated July 5, 2021. The LC_{50} of 200 µg/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 18.2 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised June 2016.

WDOE. 2020. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised September 2020.

Appendix A

Oncorhynchus mykiss Dangerous Waste Toxicity Test

Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: Whatcom Environmental Services
Sample ID: P-1 Composite
Test #: 2107-022
Log In #: T21-191

Start Date & Time: 7/16/2021 0945
End Date & Time: 7/20/2021 0945
Test Organism: *Oncorhynchus mykiss*
Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms					Dissolved Oxygen (mg/L)					pH (units)					Conductivity (umhos/cm)					Temperature (°C)					Percent Survival
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
1	CON	12	10	10	10	10	10	8.4	8.0	7.8	7.5	7.2	8.10	7.93	7.62	7.41	7.18	361				364	12.4	12.0	12.0	12.4	12.1	
2		14	10	10	10	10	10	8.7	8.4	8.1	7.4	7.0	8.12	7.97	7.59	7.44	7.22	361				360						
3		25	10	10	10	10	10	8.6	8.3	8.1	7.6	7.4	8.13	7.87	7.59	7.46	7.20	360				367						
1	10 PPM	23	10	10	10	10	10	8.4	8.0	7.7	7.4	7.0	8.10	7.92	7.61	7.41	7.18	363				364	12.5	12.1	11.8	12.5	12.4	
2		2	10	10	10	10	10	8.5	8.2	8.1	7.8	7.6	8.11	7.95	7.55	7.43	7.19	364				361						
3		9	10	10	10	10	10	8.7	8.4	8.1	7.6	7.2	8.11	7.84	7.57	7.46	7.15	363				362						
1	100 PPM	7	10	10	10	10	10	8.9	8.5	8.3	7.9	7.5	8.14	7.97	7.58	7.44	7.20	367				367	12.6	11.8	11.9	12.6	12.1	
2		20	10	10	10	10	10	8.5	8.3	8.0	7.7	7.4	8.16	7.95	7.54	7.42	7.22	362				360						
3		15	10	10	10	10	10	9.1	8.7	8.3	7.6	7.1	8.12	7.84	7.57	7.47	7.17	363				361						
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
Technician Initials			AS	CJ	CJ	AS	DH	AS	CJ	CJ	AS	DH																

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	68	100	68	100	<0.03
100PPM	68	100	68	100	

Animal Source: Troutlodge
Date Received: 7/16/2021

Test Volume: 6.0L
Date of Hatch: 5/21/2021
Date of Swim up: 6/14/2021

Weights (g): .28 .31 .30 .33 .34 .27 .32 .31 .32 .30
Lengths(mm): 28 32 30 32 36 27 31 31 34 31
Length max/min: 35/27 1.3

μ = .31 Rainier Environmental
μ = 31 Washington Laboratory

Loading: 0.5 g/L

5013 Pacific HWY E Suite 20
Tacoma, WA 98424

Dilution Water Source: MHSW 056

QA Check CJ

Appendix B

Reference Toxicant Test

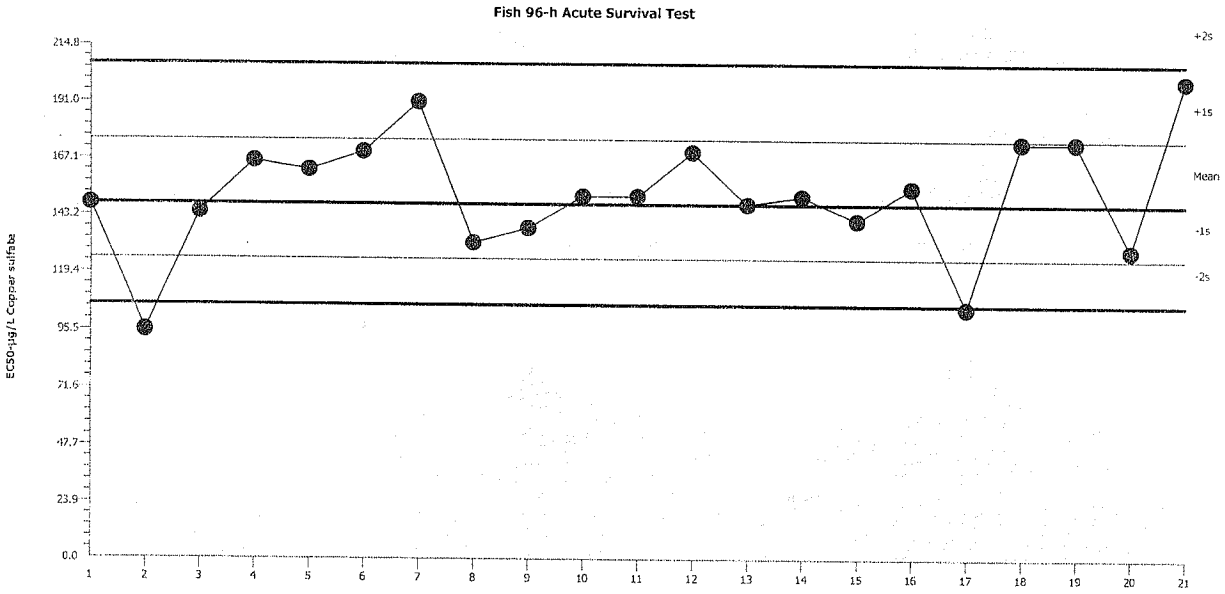
Control Chart and Statistical Summary

CETIS QC Plot

Report Date: 12 Jul-21 10:05 (1 of 1)

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Test Type:	Survival (96h)	**Organism:**	Oncorhynchus mykiss (Rainbow Tro	**Material:**	Copper sulfate
Protocol:	Not Applicable	**Endpoint:**	96h Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	148.1	**Count:**	20	**-1s Warning Limit:**	125.3	**-2s Action Limit:**	105.9
Sigma:	NA	**CV:**	18.20%	**+1s Warning Limit:**	175.1	**+2s Action Limit:**	207.1

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2019	Sep	20	148.1	-0.006829	-0.000277			14-9775-6582	02-8526-9159
2		Oct	22	95.48	-52.63	-2.62	(-)	(-)	08-2604-9852	04-5996-4554
3		Nov	25	144.7	-3.39	-0.1381			19-0900-7567	17-7816-6246
4		Dec	26	166.2	18.13	0.689			18-0718-4325	01-1522-2292
5	2020	Jan	27	162.5	14.33	0.5512			15-7428-0290	09-7189-2054
6		Feb	28	170.1	22.02	0.8269			09-4267-7927	12-7910-1452
7		Apr	1	191	42.85	1.516	(+)		13-6543-5000	21-3363-8866
8		May	1	132	-16.17	-0.6896			05-3085-5611	09-0915-7454
9		Jun	4	138.2	-9.925	-0.4138			02-5099-4531	13-4027-8146
10		Jul	6	151.6	3.455	0.1376			15-0399-3719	05-1602-0366
11		Aug	11	151.6	3.455	0.1376			11-3397-1930	16-8568-1199
12		Sep	14	170.1	22.02	0.8269			14-7225-6269	12-3543-2567
13		Oct	16	148.1	-0.006829	-0.000277			14-5810-5046	20-2713-3131
14		Nov	18	151.6	3.455	0.1376			10-5338-0034	08-0074-4976
15		Dec	23	141.4	-6.695	-0.276			15-6478-5352	03-7190-5847
16	2021	Jan	25	155.1	6.998	0.2754			20-5317-8946	09-6722-9321
17		Feb	25	104.7	-43.39	-2.068	(-)	(-)	02-0723-8590	03-5049-2171
18		Mar	26	174.1	25.99	0.9647			20-1005-2762	02-2683-0690
19		May	3	174.1	25.99	0.9647			06-3924-6336	17-2626-4312
20		Jun	2	128.9	-19.18	-0.8274			07-7369-8679	18-7582-9918
21		Jul	5	200	51.88	1.792	(+)		05-2506-1213	20-3965-9928

CETIS Summary Report

Test Code: RA070521OM | 05-2506-1213

Fish 96-h Acute Survival Test — Rainier Environmental Laboratory

Batch ID:	20-1773-3416	Test Type:	Survival (96h)	Analyst:	Eric Tollefson
Start Date:	05 Jul-21 10:35	Protocol:	Not Applicable	Diluent:	Mod-Hard Synthetic Water
Ending Date:	09 Jul-21 10:35	Species:	Oncorhynchus mykiss	Brine:	
Duration:	96h	Source:	Trout Lodge Fish Farm	Age:	100d
Sample ID:	09-8083-0896	Code:	RA070521OM	Client:	Internal Lab
Sample Date:	05 Jul-21	Material:	Copper sulfate	Project:	
Receive Date:	05 Jul-21	Source:	Reference Toxicant		
Sample Age:	11h	Station:	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-5892-4148	96h Survival Rate	100	200	141.4	10.2%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
20-3965-9928	96h Survival Rate	LC50	200	172.9	231.3		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	1	1	1	1	1	0	0	0.0%	0.0%
100		3	0.9	0.8627	0.9373	0.8	1	0.05774	0.1	11.11%	10.0%
200		3	0.6	0.5627	0.6373	0.5	0.7	0.05774	0.1	16.67%	40.0%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	1	1
100		0.9	1	0.8
200		0.6	0.5	0.7
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	10/10	10/10
100		9/10	10/10	8/10
200		6/10	5/10	7/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

Rainier ENVIRONMENTAL

Washington
5013 Pacific Highway East, Suite 20 Fife,
WA 98424
Phone253.922.8898

Chain of Custody

Date 7/8/21 Page 1 of 1

Sample Collection By:

Report to:		Invoice To:	
Company	Whatcom Environmental Services	Company	Same as report
Address	228 E. Champion St. #101	Address	
City/State/Zip	Bellingham WA 98225	City/State/Zip	
Contact	Harold Cashman	Contact	
Phone	(360) 752-9571	Phone	
Email	hjcashman@whatcom-es.com	Email	

	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS	ANALYSES REQUIRED: Dangerous Waste Designation (Method 8021-B)	Receipt Temperature (°C)
1	P-1 Composite	7/8/21	11:30	Soil	4oz glass	1		X	
2									
3									
4									
5									
6									
7									
8									
9									
10									

PROJECT INFORMATION		SAMPLE RECEIPT	
Client:	City of B'ham	Total No. of Containers	1
PO No.:	210 McKenzie	Received Good Condition?	Y
Shipped Via:	UPS	Matches Test Schedule?	Y

SPECIAL INSTRUCTIONS/COMMENTS:

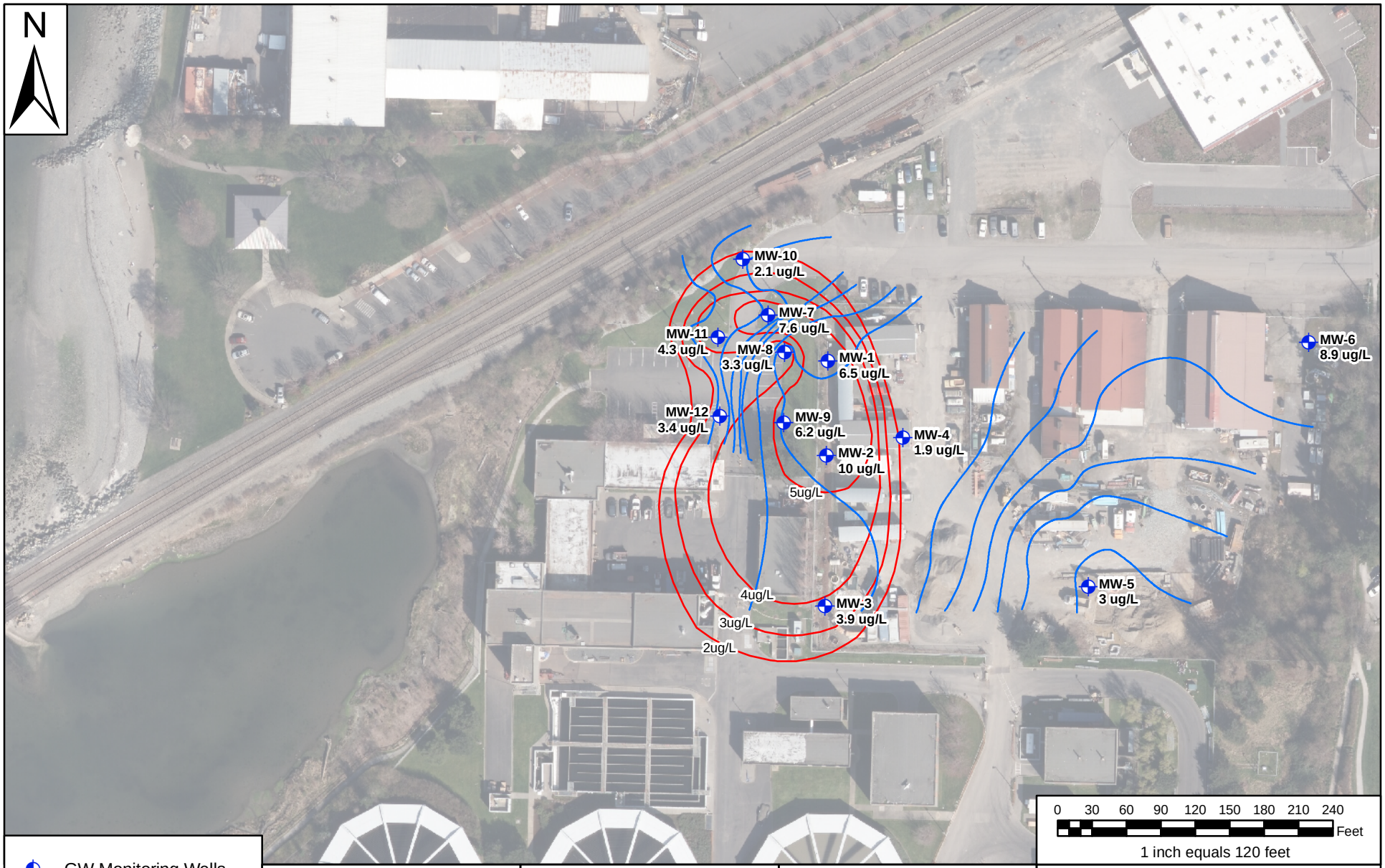
RELINQUISHED BY (CLIENT)	RELINQUISHED BY (COURIER)
(Signature) (Time) 2:15	(Signature) (Time)
(Printed Name) Harold Cashman (Date) 7/8/21	(Printed Name) (Date)
(Company) Whatcom Environmental Services	(Company)

RECEIVED BY (COURIER)	RECEIVED BY (LABORATORY)
(Signature) (Time)	(Signature) Annie Lee (Time) 1400
(Printed Name) (Date)	(Printed Name) Annie Lee (Date) 7/9/21
(Company)	(Log in #) T21-191

APPENDIX L
DISSOLVED ARSENIC CONCENTRATION MAPS

LIST OF DISSOLVED ARSENIC CONCENTRATION MAPS

Figure L-1	06/15/2011
Figure L-2	12/06/2011
Figure L-3	06/12/2012
Figure L-4	11/15/2012
Figure L-5	09/17/2014
Figure L-6	09/28/2015
Figure L-7	09/07/2016
Figure L-8	09/19/2017
Figure L-9	09/20/2018
Figure L-10	08/06/2019
Figure L-11	09/14/2020



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

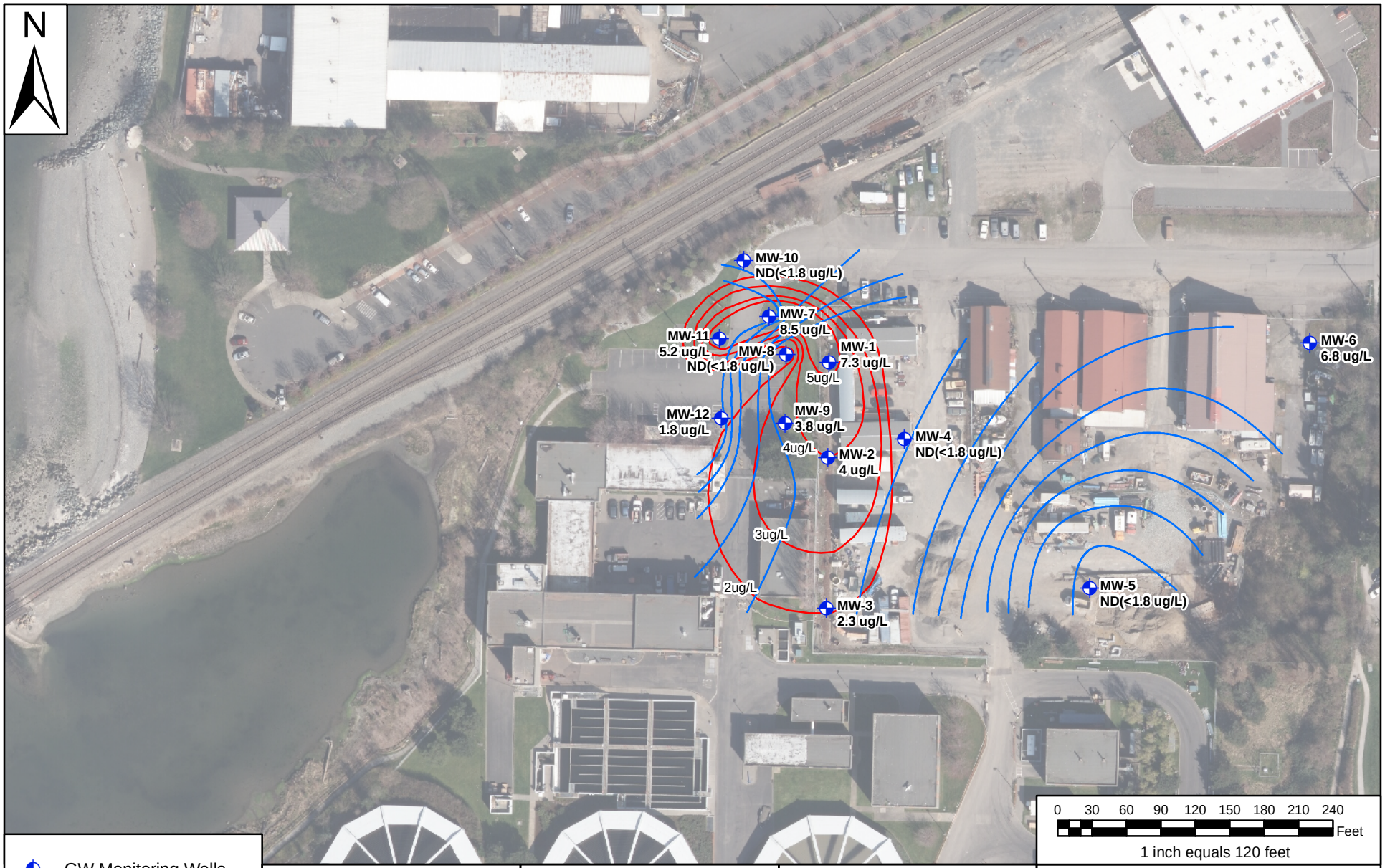
nwhatcom ENVIRONMENTAL

Arsenic Plume Map (06/15/11)

210 McKenzie RI/FS

09/16/14

Figure L-1



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham

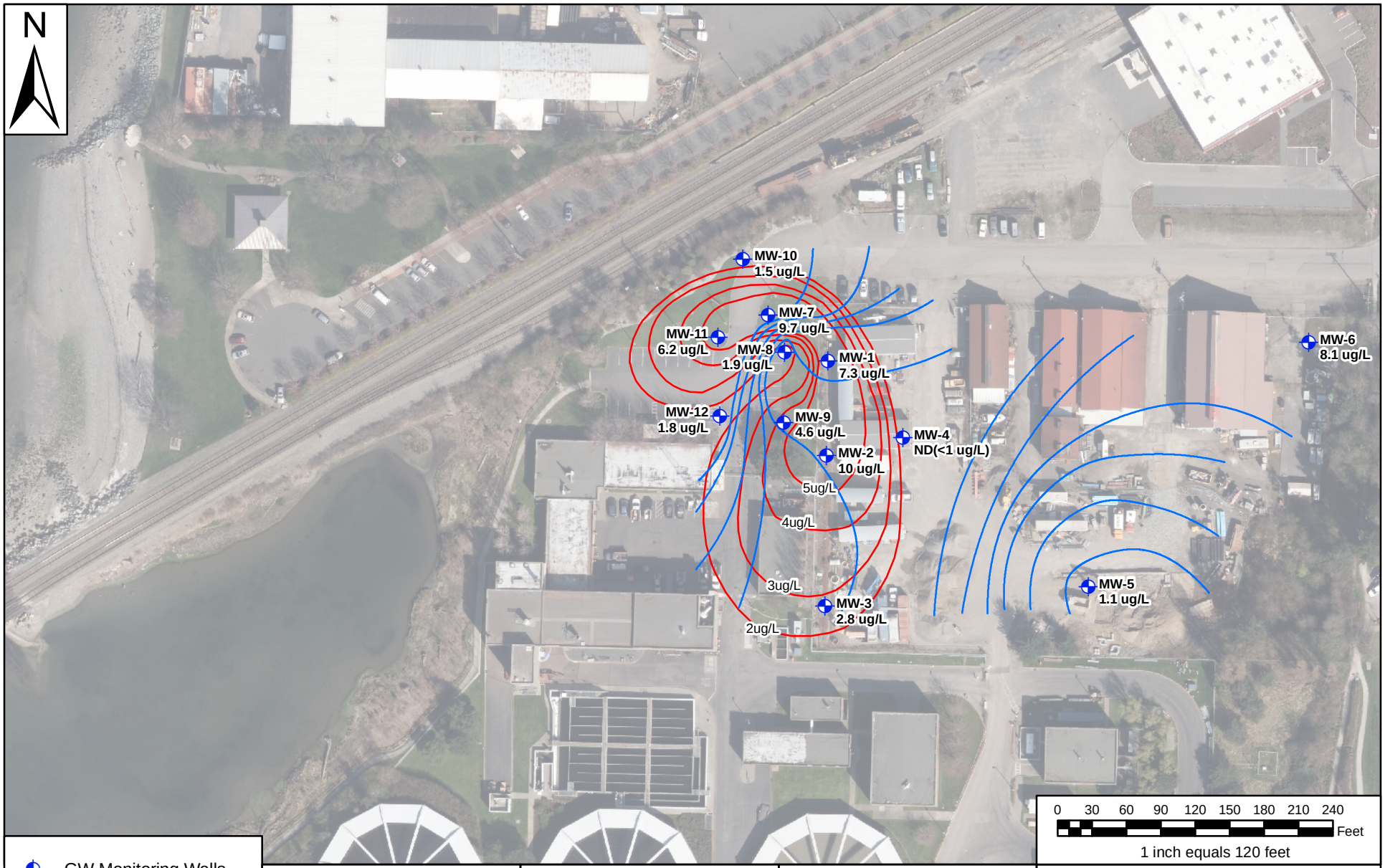
Prepared by: nwhatcom ENVIRONMENTAL

Arsenic Plume Map (12/06/11)

210 McKenzie RI/FS

09/16/14

Figure L-2



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham

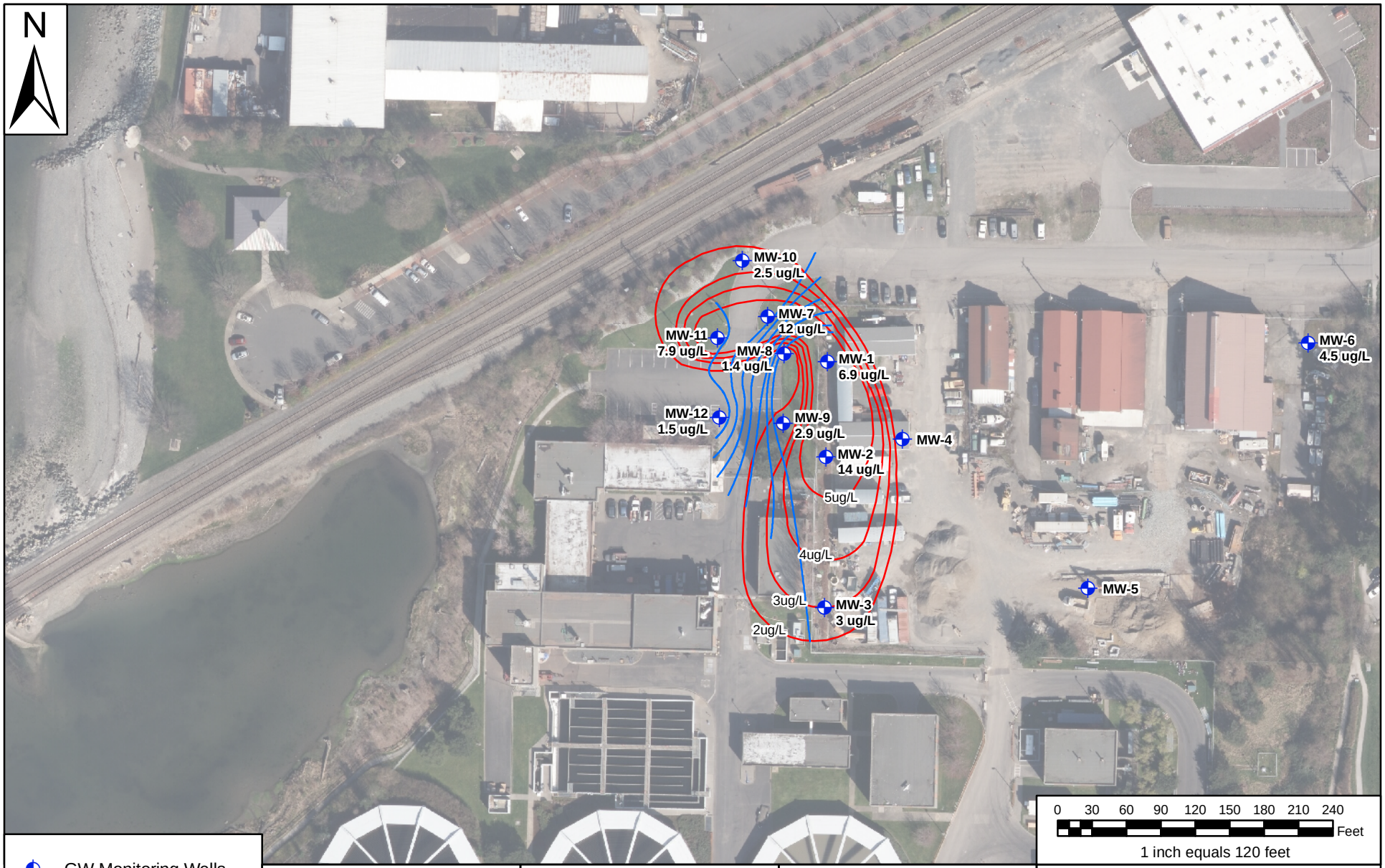
Prepared by: nwhatcom ENVIRONMENTAL

Arsenic Plume Map (06/12/12)

210 McKenzie RI/FS

09/16/14

Figure L-3



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

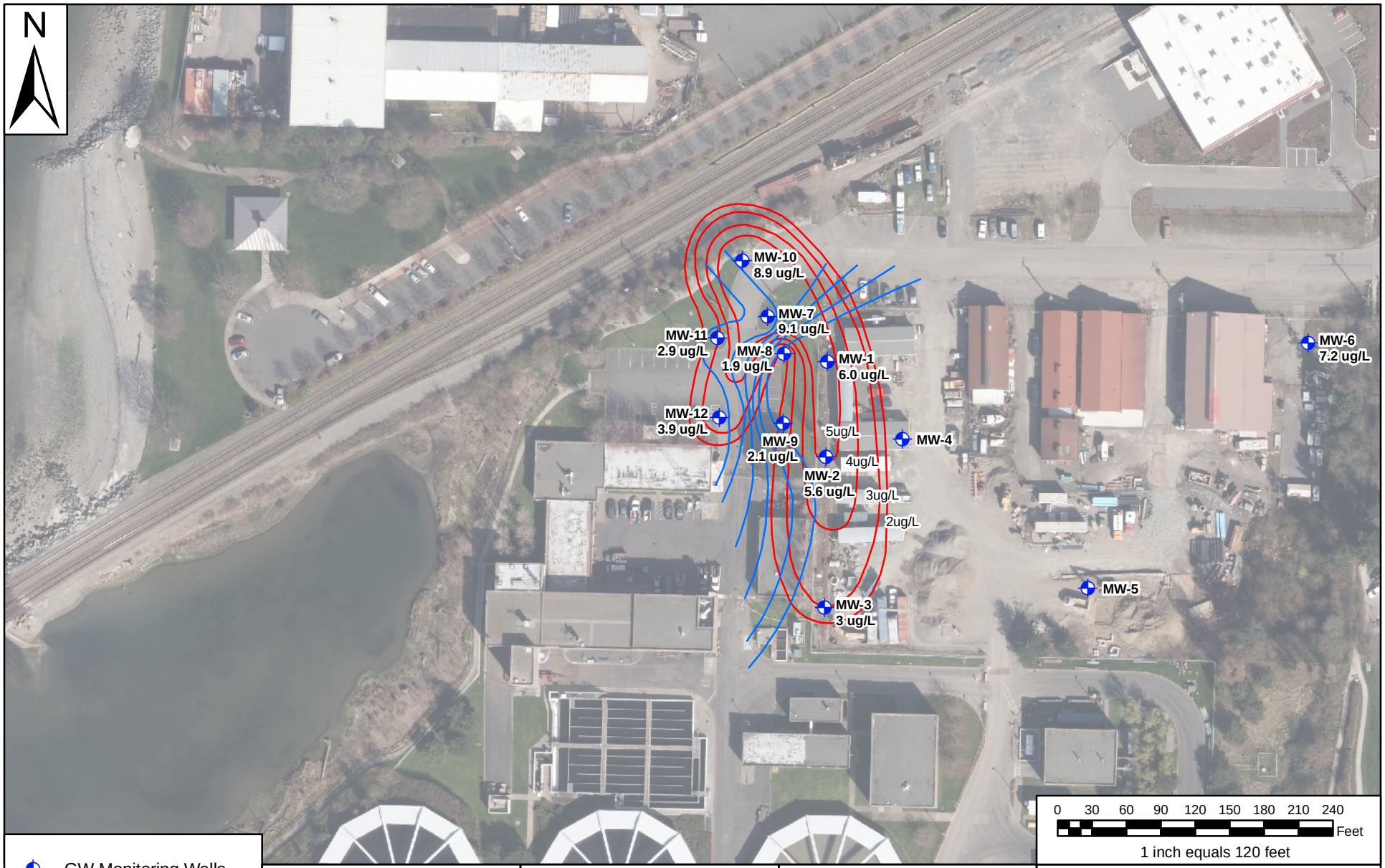
whatcom ENVIRONMENTAL

Arsenic Plume Map (11/15/12)

210 McKenzie RI/FS

09/15/14

Figure L-4



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

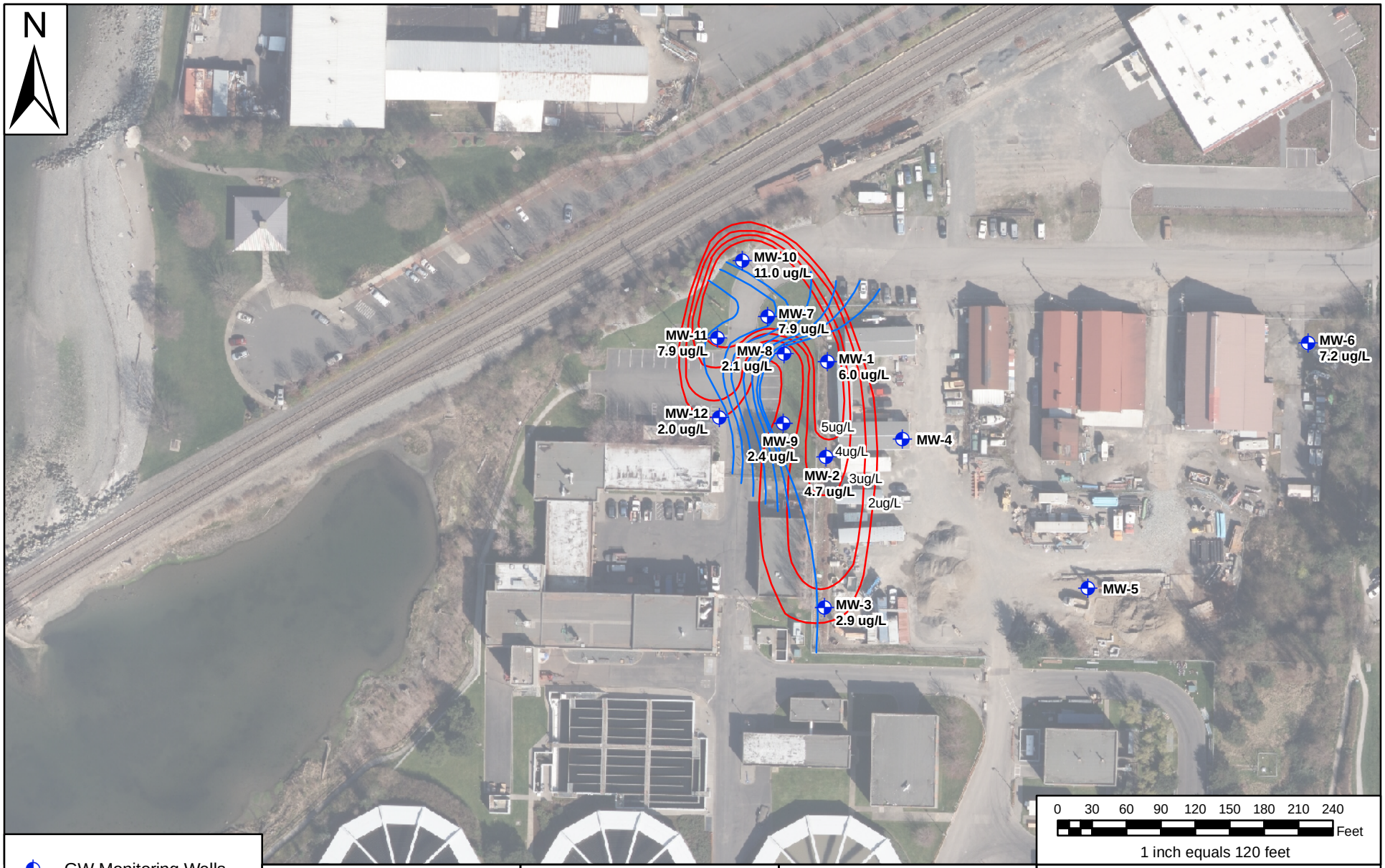
nwhatcom ENVIRONMENTAL

Arsenic Plume Map (09/17/14)

210 McKenzie RI/FS

10/03/14

Figure L-5



GW Monitoring Wells

GW Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

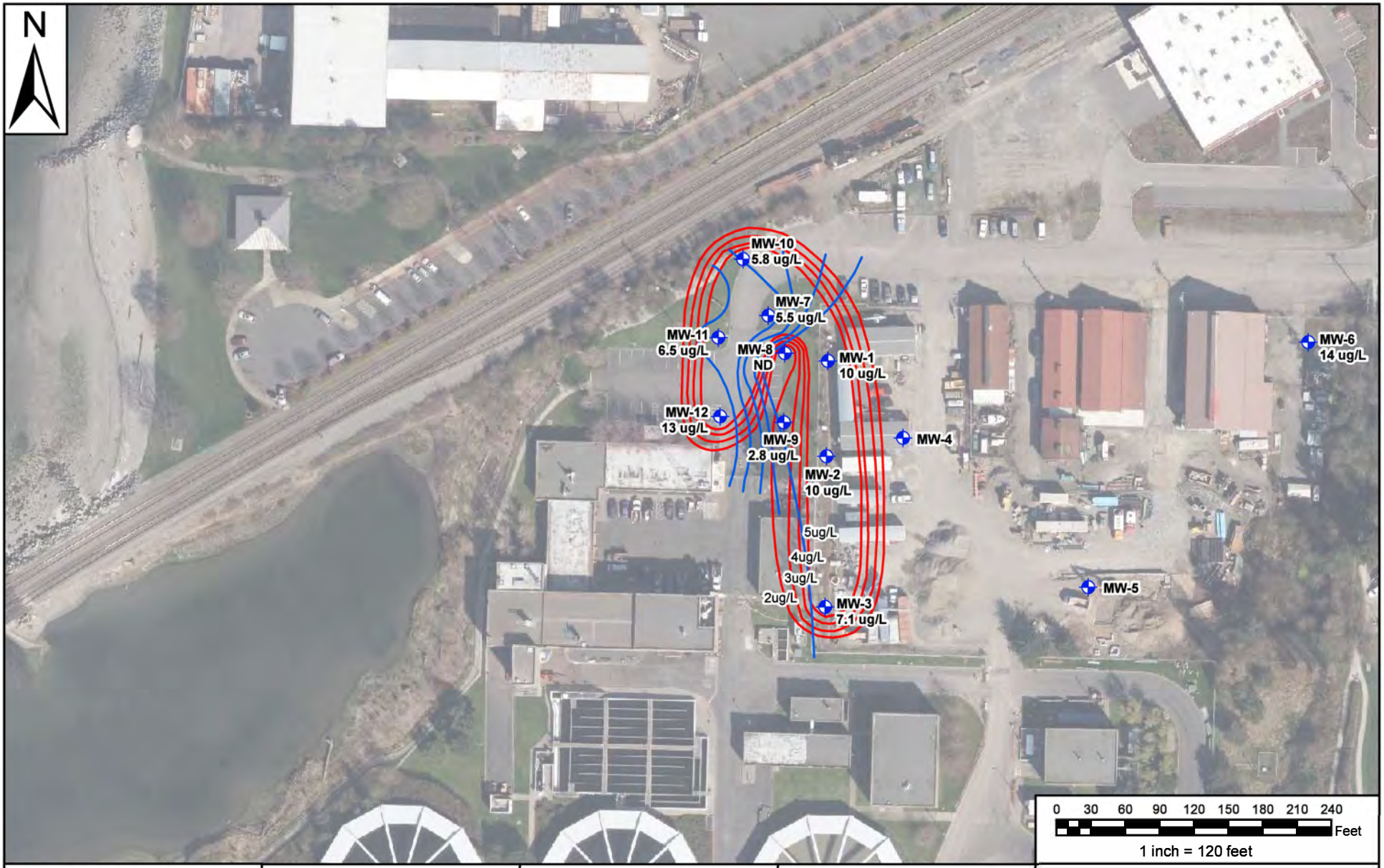
whatcom ENVIRONMENTAL

Arsenic Plume Map (09/28/15)

210 McKenzie RI/FS

10/22/15

Figure L-6



GW Monitoring Wells

Groundwater Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

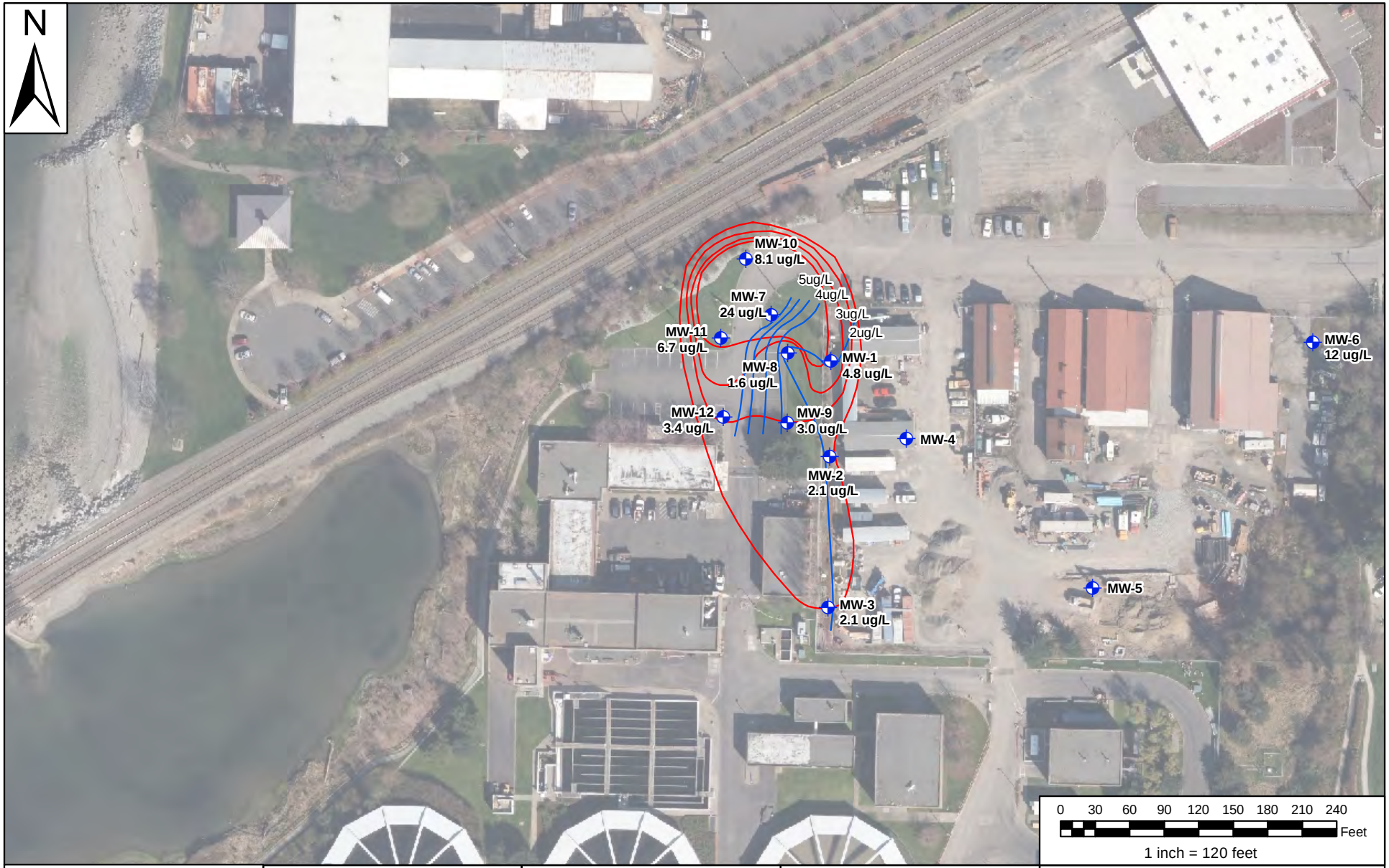
whatcom ENVIRONMENTAL

Arsenic Plume Map (09/07/2016)

210 McKenzie RI/FS

10/10/16

Figure L-7



GW Monitoring Wells

Groundwater Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham

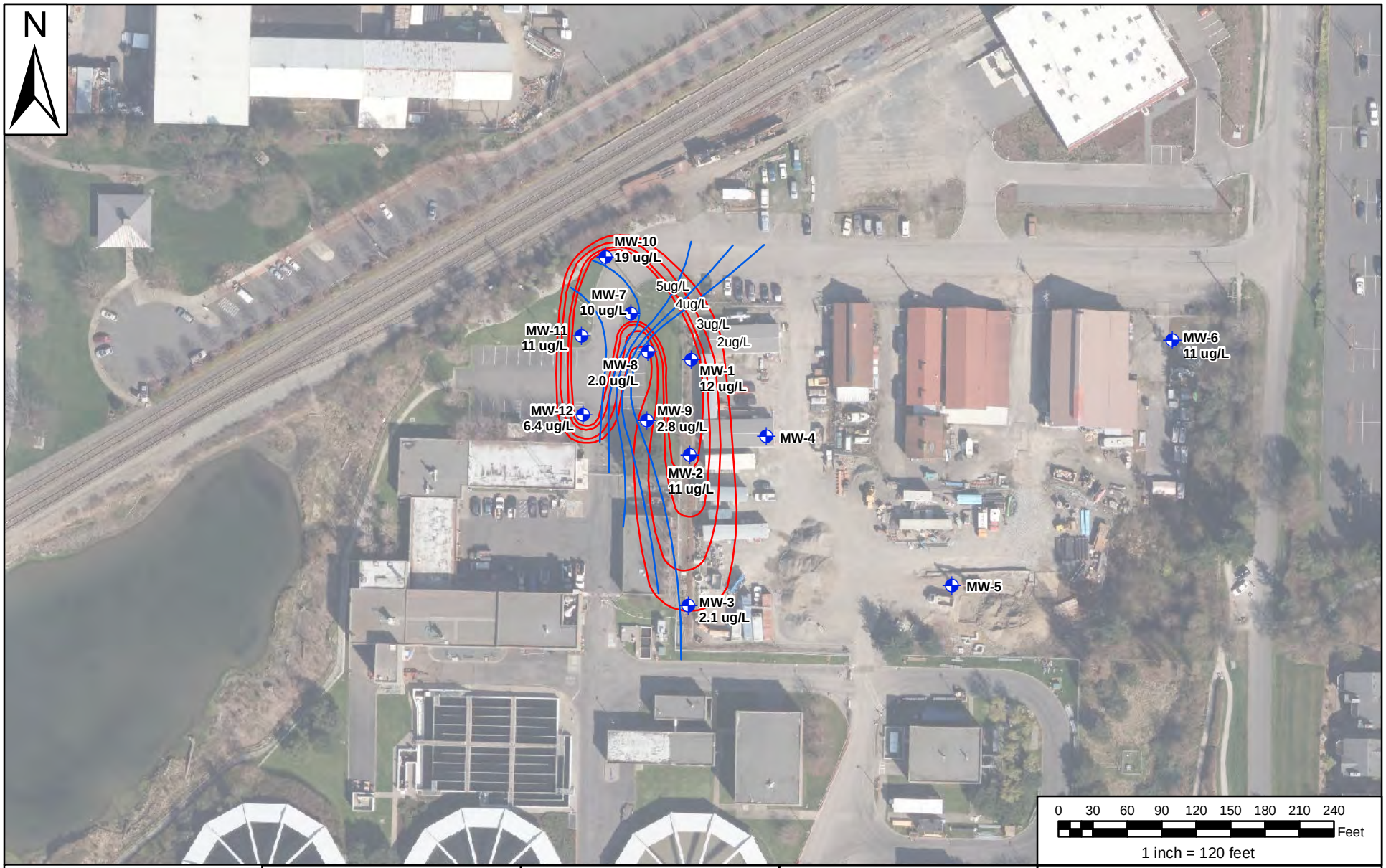
Prepared by: nwhatcom ENVIRONMENTAL

Arsenic Plume Map (09/19/2017)

210 McKenzie RI/FS

09/25/17

Figure L-8



GW Monitoring Wells

Groundwater Contour Lines

Arsenic Plume Contours

* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham WASHINGTON

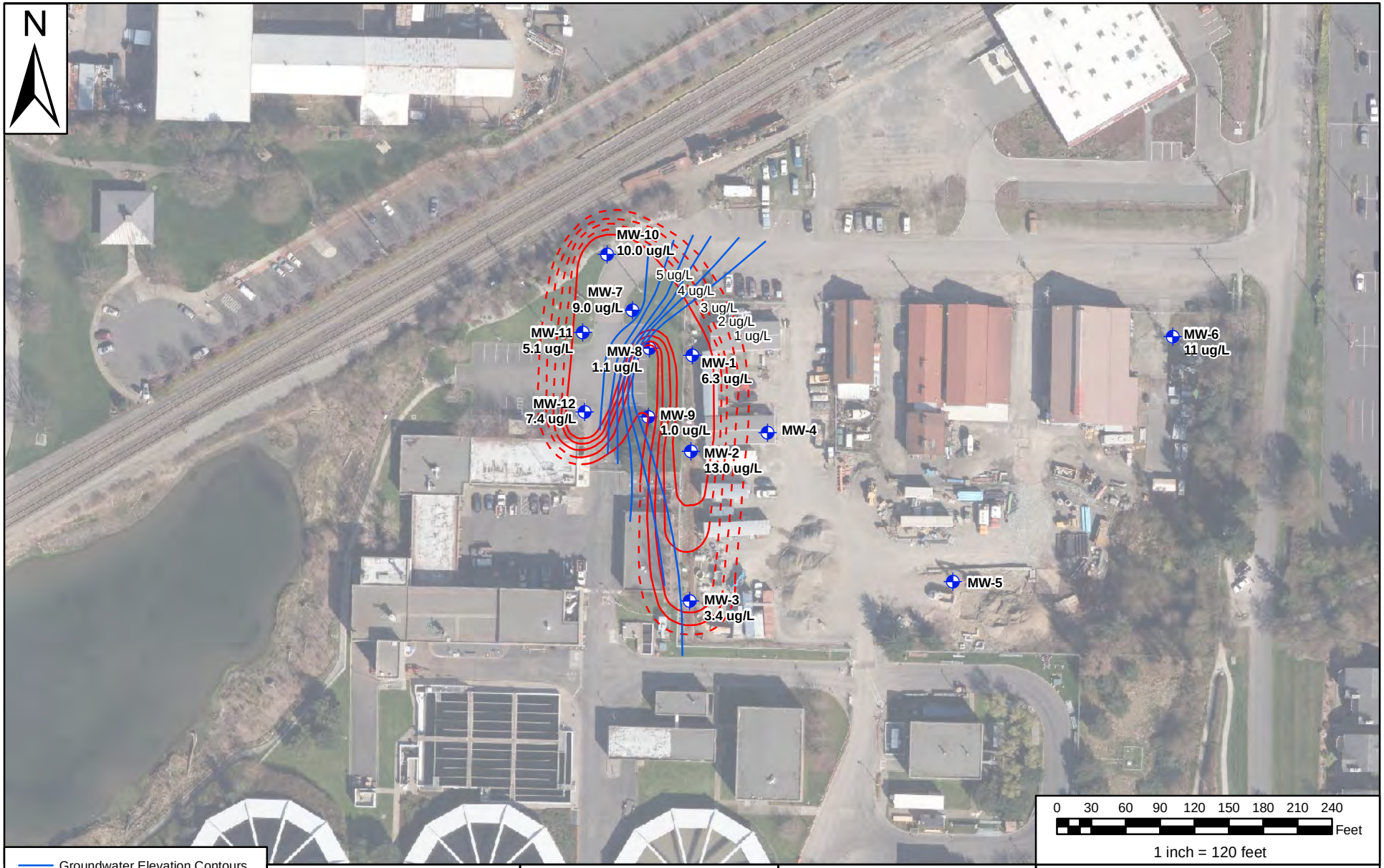
Prepared by: whatcom ENVIRONMENTAL

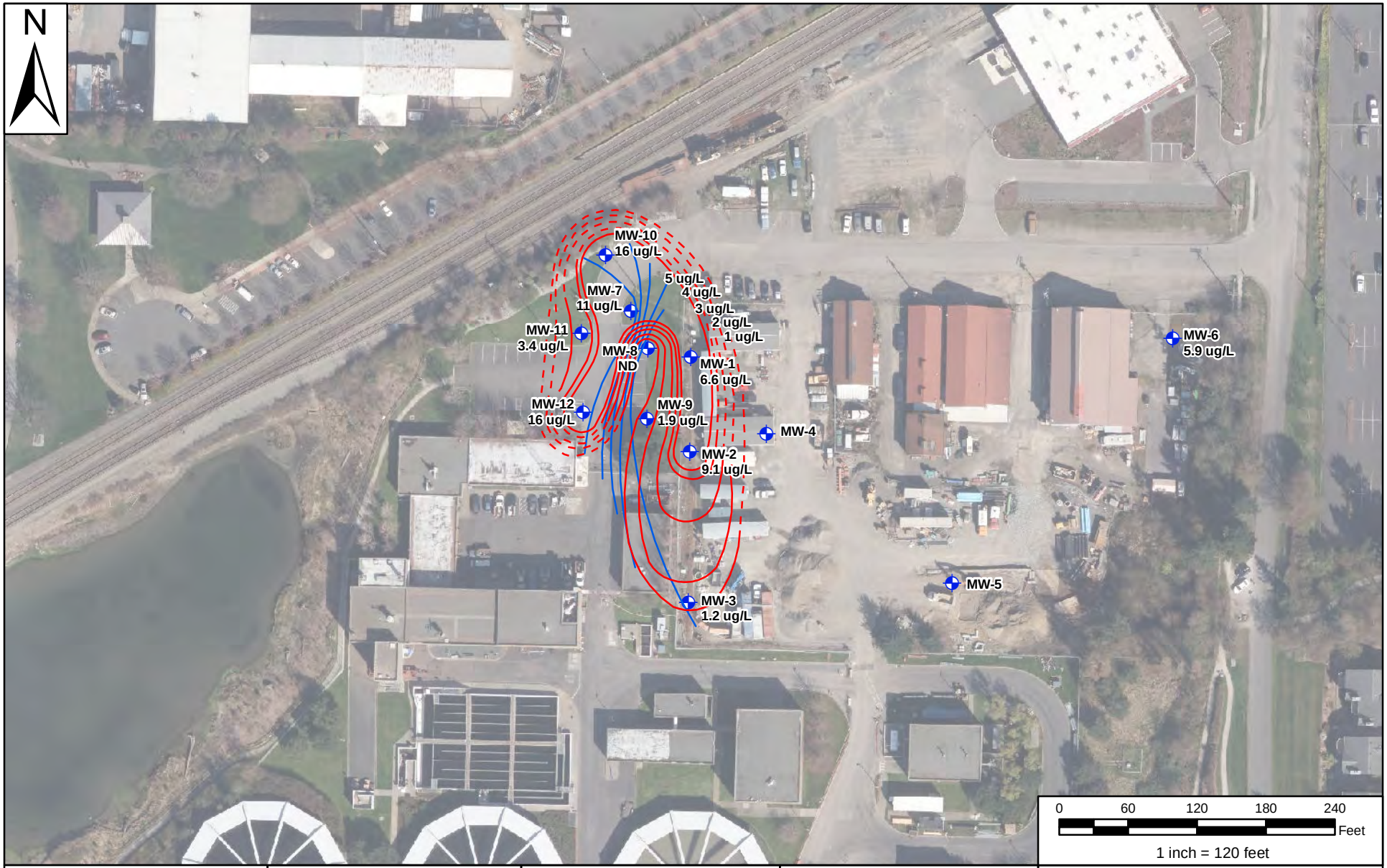
Arsenic Plume Map (09/20/2018)

210 McKenzie RI/FS

10/10/18

Figure L-9


N
MW-10
10.0 ug/L
5 ug/L
4 ug/L
3 ug/L
2 ug/L
1 ug/L
MW-7
9.0 ug/L
MW-11
5.1 ug/L
MW-8
1.1 ug/L
MW-1
6.3 ug/L
MW-6
11 ug/L
MW-12
7.4 ug/L
MW-9
1.0 ug/L
MW-4
MW-2
13.0 ug/L
MW-5
MW-3
3.4 ug/L
0 30 60 90 120 150 180 210 240
Feet
1 inch = 120 feet
Groundwater Elevation Contours
Arsenic Plume Contour
Arsenic Plume Contour (Uncertain)
GW Monitoring Wells
* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.
All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).
Prepared for:
City of Bellingham
WASHINGTON
Prepared by:
nwhatcom
ENVIRONMENTAL
Arsenic Plume Map
(08/06/2019)
210 McKenzie
RI/FS
08/29/19
Figure L-10



Groundwater Elevation Contours
Arsenic Plume Contour
Arsenic Plume Contour (Uncertain)
GW Monitoring Wells
* MW-4, MW-5 and MW-6 were not included in drawing the arsenic plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham WASHINGTON

Prepared by: whatcom ENVIRONMENTAL

Arsenic Plume Map (09/14/2020)

210 McKenzie RI/FS

10/12/20

Figure L-11

APPENDIX M
DISSOLVED IRON CONCENTRATION MAPS

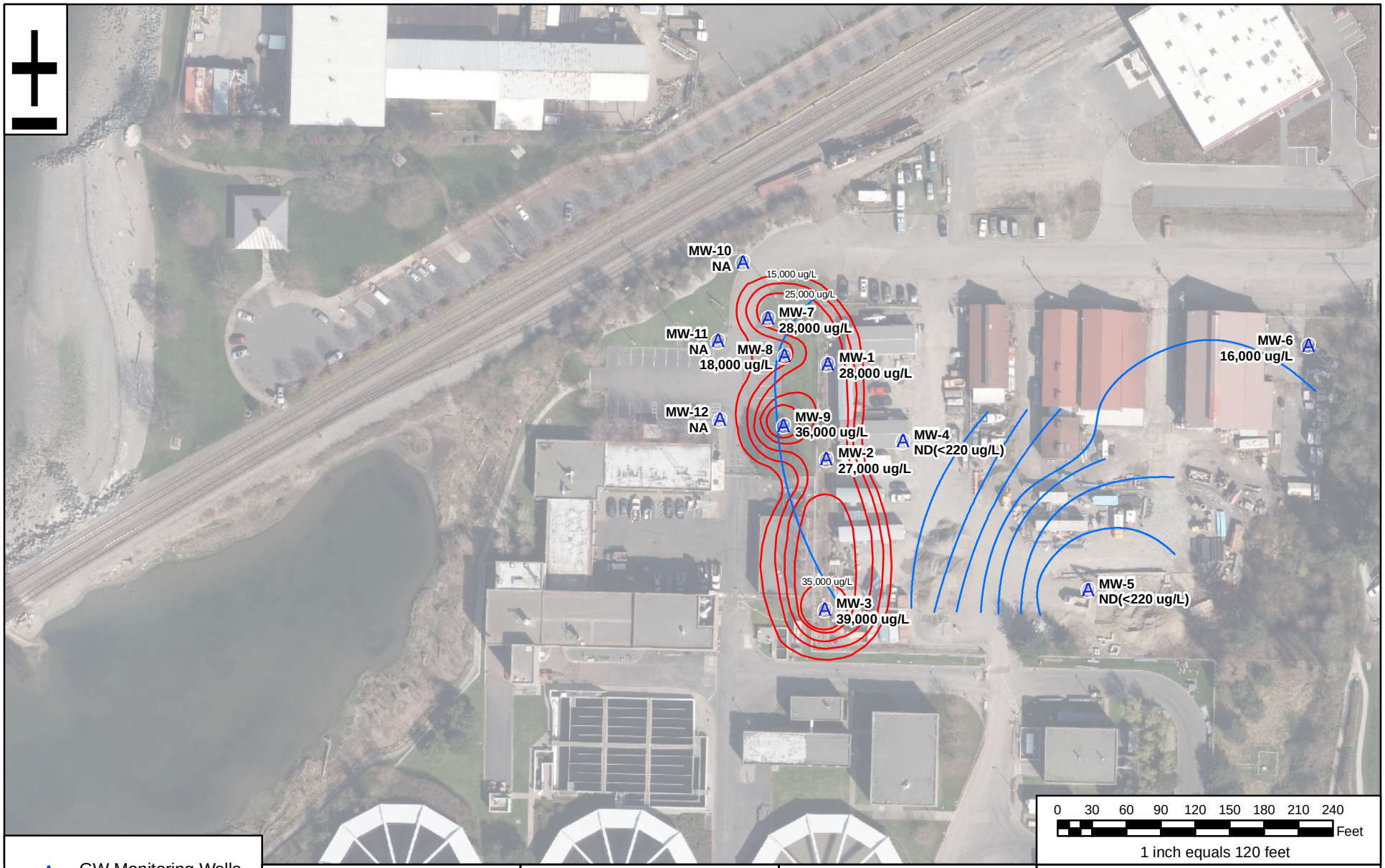
LIST OF DISSOLVED IRON CONCENTRATION MAPS

Figure M-1 03/23/2011

Figure M-2 06/16/2011

Figure M-3 09/22/2011

Figure M-4 12/07/2011



A GW Monitoring Wells

GW Contour Lines

Iron Plume Contours

* MW-5 and MW-6 were not included in drawing the iron plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

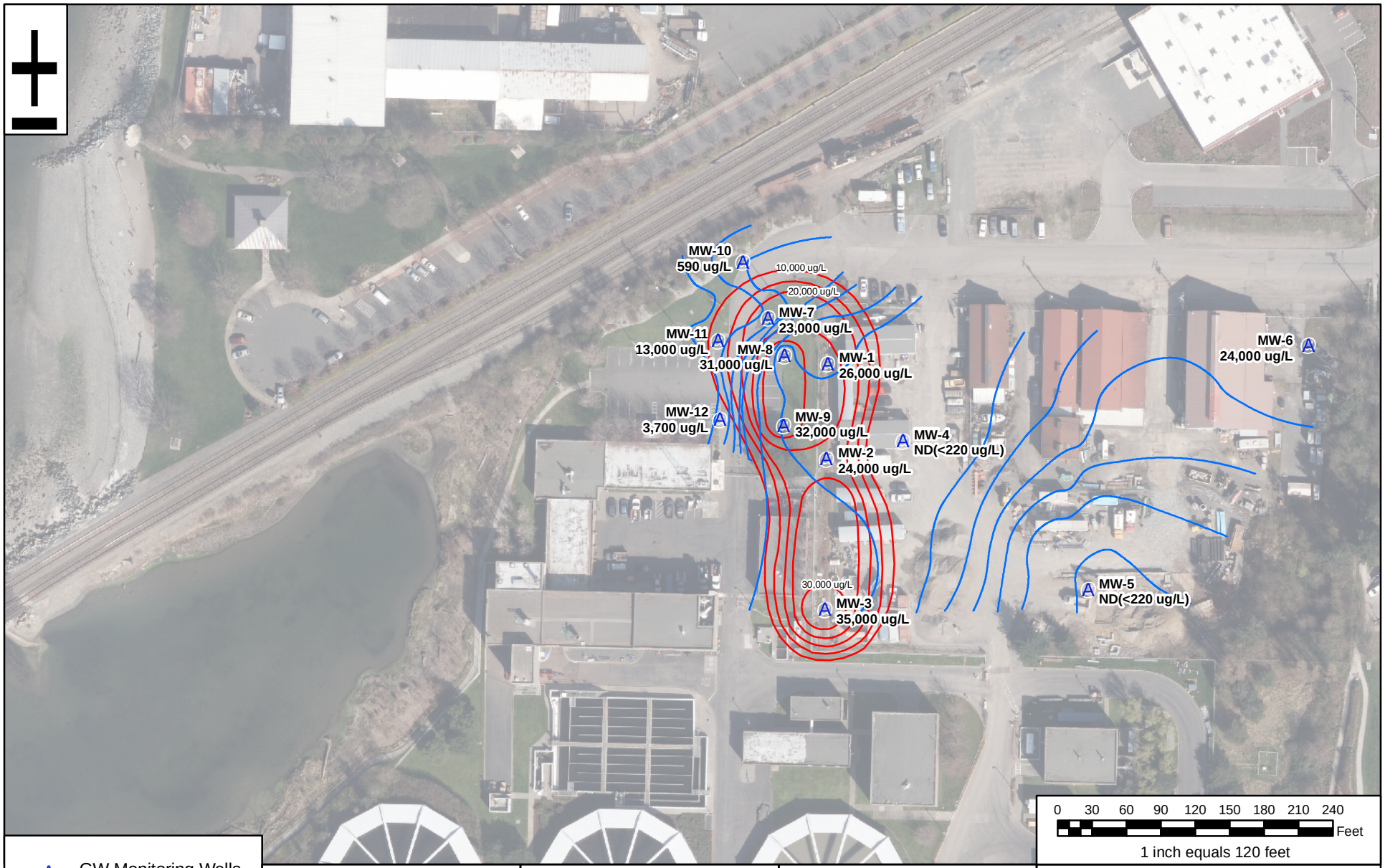
nwhatcom ENVIRONMENTAL

Iron Plume Map (03/23/11)

210 McKenzie RI/FS

11/24/14

Figure M-1



A GW Monitoring Wells

GW Contour Lines

Iron Plume Contours

* MW-5 and MW-6 were not included in drawing the iron plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

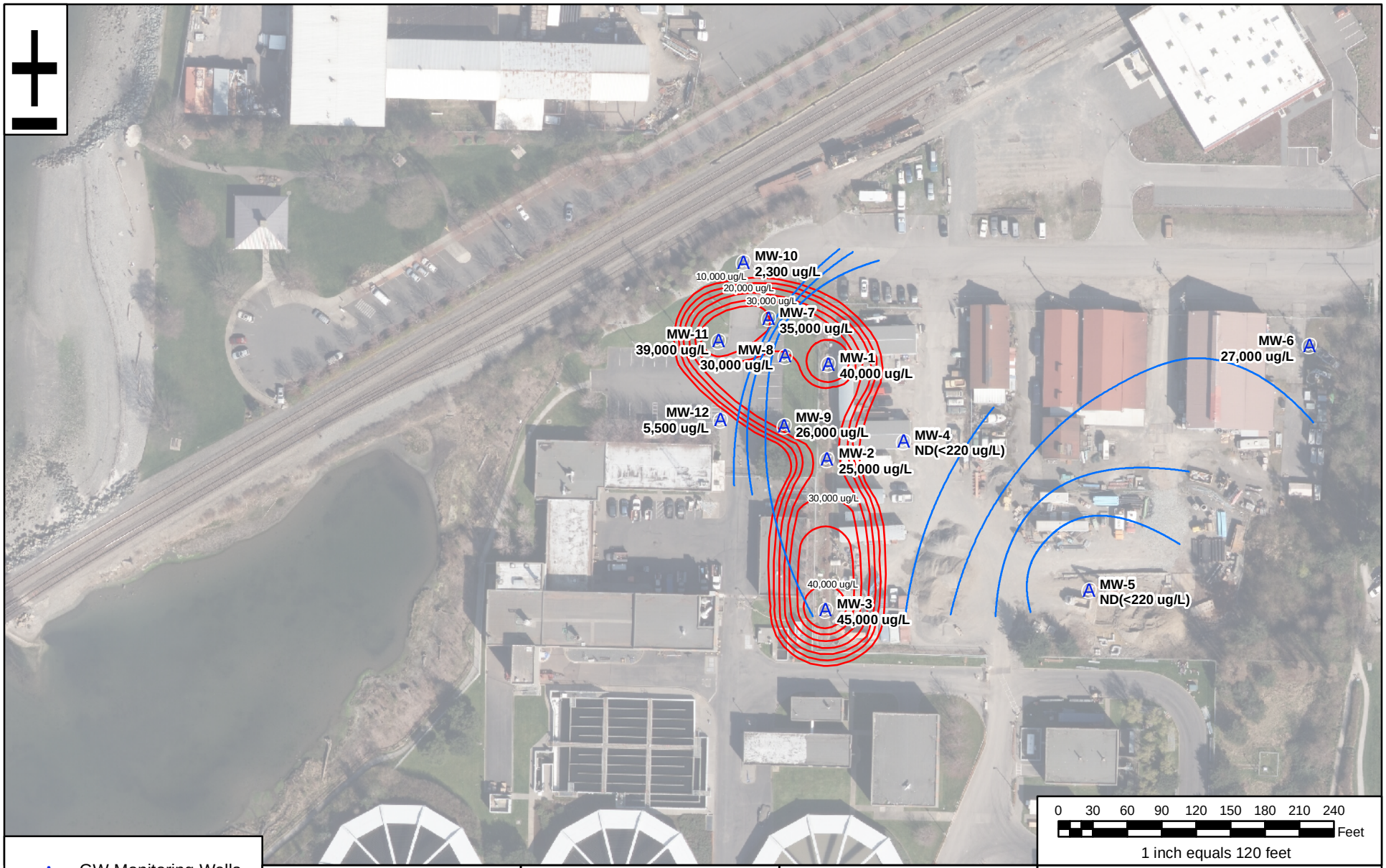
nwhatcom ENVIRONMENTAL

Iron Plume Map (06/16/11)

210 McKenzie RI/FS

11/24/14

Figure M-2



A GW Monitoring Wells

GW Contour Lines

Iron Plume Contours

* MW-5 and MW-6 were not included in drawing the iron plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for:

City of Bellingham

Prepared by:

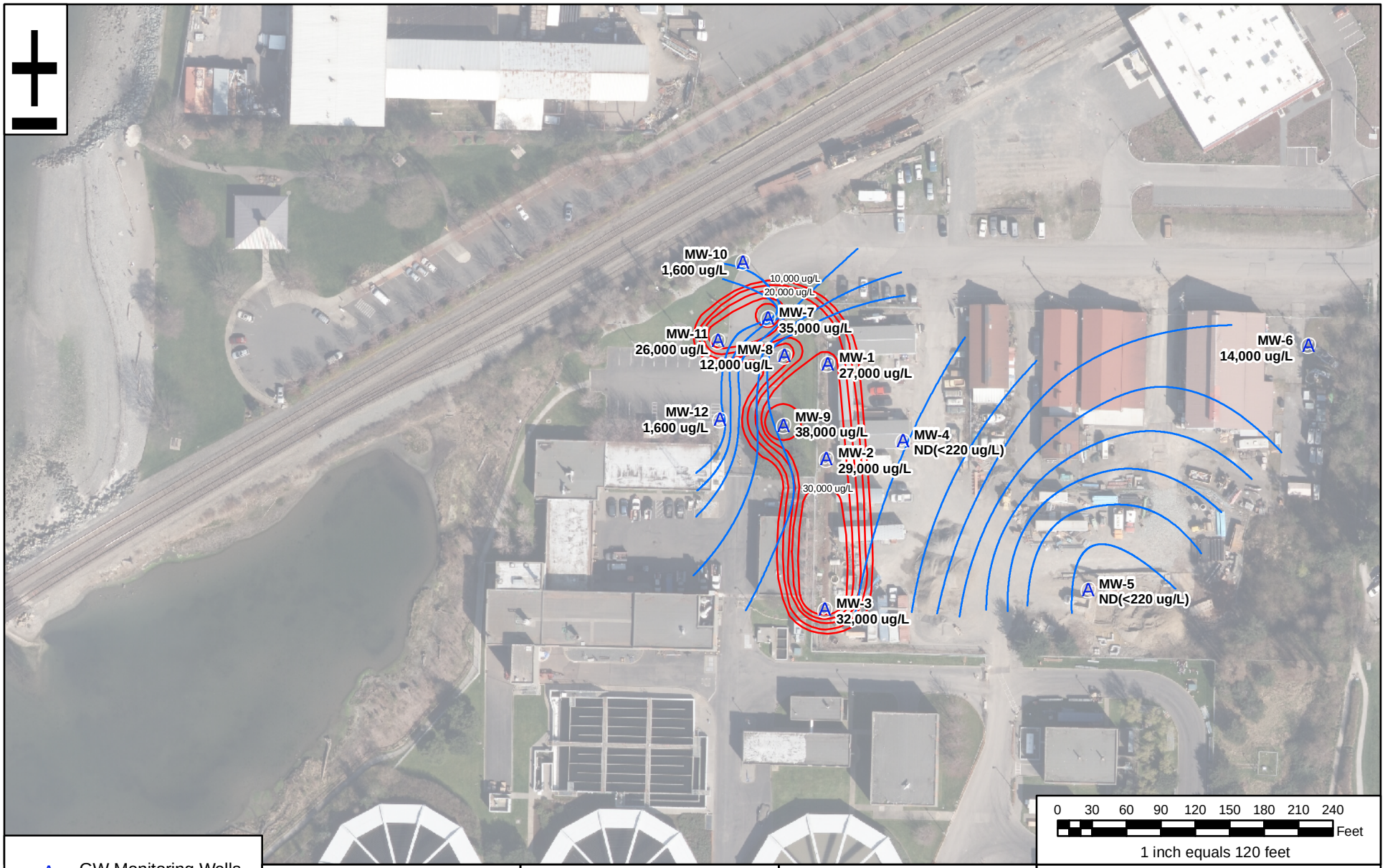
nwhatcom ENVIRONMENTAL

Iron Plume Map (09/22/11)

210 McKenzie RI/FS

11/24/14

Figure M-3



0 30 60 90 120 150 180 210 240 Feet

1 inch equals 120 feet

A GW Monitoring Wells

GW Contour Lines

Iron Plume Contours

* MW-5 and MW-6 were not included in drawing the iron plume.

All data are approximate and should be used for relative location reference only.
2013 Aerial Photograph (COB).

Prepared for: City of Bellingham

Prepared by: nwhatcom ENVIRONMENTAL

Iron Plume Map (12/07/11)

210 McKenzie RI/FS

11/24/14

Figure M-4

APPENDIX N
TERRESTRIAL ECOLOGICAL EVALUATION

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation. You still need to submit your evaluation as part of your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Bellingham City 210 McKenzie	
Facility/Site Address: 210 McKenzie Ave, Bellingham, WA 98225	
Facility/Site No: FSID# 151016	VCP Project No.: NW2179

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Thomas Davis		Title: Consulting Scientist	
Organization: ALL4 LLC			
Mailing address: 228 E Champion St #101			
City: Bellingham	State: WA	Zip code: 98225	
Phone: 360.752.9571	Fax:	E-mail: tdavis@all4inc.com	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2**.*

☑ No or Unknown *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☑ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☑ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☑ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☑ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*

☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

Northwest Region: Attn: Sara Nied 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: Mark Dunbar 15 W. Yakima Ave., Suite 200 Yakima, WA 98902
Southwest Region: Attn: Scott Rose P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: Patti Carter N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Terrestrial Ecological Evaluation Process- Simplified or Site-Specific Evaluation?

Documentation Form

	Terrestrial Concern	Response (Circle One)
*1	Is the site is located on or directly adjacent to an area where management or land use plans will maintain or restore native or semi-native vegetation?	Yes / (No)
*2a	Is the site used by a threatened or endangered species?	Yes / (No)
*2b	Is the site used by a wildlife species classified by the state department of fish and wildlife as a "priority species" or "species of concern" under Title 77 RCW?	Yes / (No)
*2c	Is the site used by a plant species classified by the Washington state department of Natural Resources natural heritage program as "endangered," "threatened," or "sensitive" under Title 79 RCW.	Yes / (No)
*3	Is the site (area where the contamination is located) located on a property that contains at least ten acres of native vegetation within 500 feet of the area where the contamination is located?	Yes / (No)
4	Has the department determined that the site may present a risk to significant wildlife populations?	Yes / (No)

*1 This includes for example, green-belts, protected wetlands, forestlands, locally designated environmentally sensitive areas, open space areas managed for wildlife, and some parks or outdoor recreation areas. This does not include park areas used for intensive sport activities such as baseball or football.

*2a What are the threatened or endangered species in Washington state?

*2b Which plant species are classified as threatened, endangered, or sensitive? Where can I find out more information about this topic?

*2c For plants, "used" means that a plant species grows at the site or has been found growing at the site. For animals, "used" means that individuals of a species have been observed to live, feed or breed at the site.

*3 For this analysis, do not include native vegetation beyond the property boundary.

The following sources shall be used in making this determination: Natural Vegetation of Oregon and Washington, J.F. Franklin and C.T. Dyrness, Oregon State University Press, 1988, and L.C. Hitchcock, C.L. Hitchcock, J.W. Thompson and A. Cronquist, 1955-1969, Vascular Plants of the Pacific Northwest(5 volumes). Areas planted with native species for ornamental or landscaping purposes shall not be considered to be native vegetation. [WAC 173-340-7491(2)(c)(i)]

(Here's a link to the Seattle Public Library and the Washington State Library to borrow a copy of Natural Vegetation of Oregon and Washington, J.F. Franklin and C.T. Dyrness, Oregon State University Press, 1988, or you may purchase it through your favorite bookseller. Here's an additional link to a useful online Field Guide to Selected Rare Plants of Washington developed by the Washington State Department of Natural Resources' Natural Heritage Program (WNHP) and the Spokane District of the U.S.D.I. Bureau of Land Management (BLM) which contains fact sheets for 139 vascular plant species and one lichen species.

Here is an aid to calculating area and an aerial photo depicting a site, its 500 foot boundary and several labeled circles identifying various areas for reference in judging the area of native vegetation within the 500 foot radius.

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493] [Index of Tables]

[TEE Home]

Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).	
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.	
Area (acres) / Points 0.25 or less / 4 0.5 / 5 1.0 / 6 1.5 / 7 2.0 / 8 2.5 / 9 3.0 / 10 3.5 / 11 4.0 or more / 12	11
2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1	3
3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3	3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]	2
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	12

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

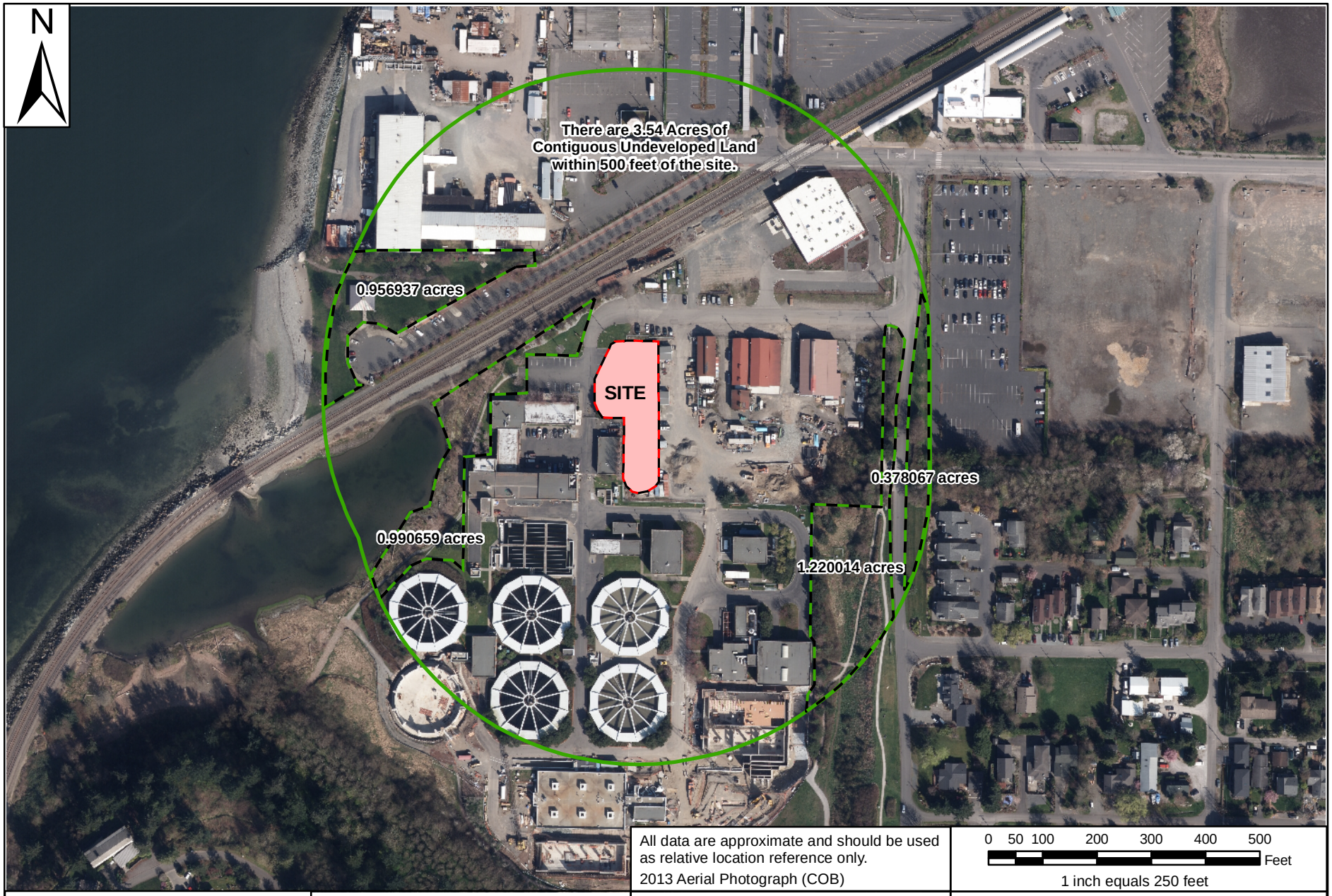
Intermediate: Area does not rate as either high or low.

[c] Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[Area Calculation Aid] [Aerial Photo with Area Designations] [TEE Table 749-1] [Index of Tables]

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493]

[TEE Home]



All data are approximate and should be used as relative location reference only.

2013 Aerial Photograph (COB)

0 50 100 200 300 400 500 Feet

1 inch equals 250 feet

TEE Contiguous Undeveloped Land
500 ft Buffer
SITE Extent

Prepared for:

City of Bellingham

Prepared by:

ALL4

Terrestrial Ecological Evaluation Contiguous Undeveloped Land

210 McKenzie Remediation

05/13/24

Figure N-1

APPENDIX O
REMEDIAL ALTERNATIVE COST ESTIMATE CALCULATIONS

Cost Estimate

	#1 Complete	#2 Partial + PRB	#3 Partial + Cap	#4 PRB + Cap
Excavation ($150/ton):	$1,755,000	$986,900	$900,900	$86,000
Backfill ($40/ton):	$468,000	$263,173	$240,240	$22,933
Confirmation Sampling/Labor:	$307,818	$356,943	$556,535	$272,840
Waste Characterization:	$55,000	$38,000	$38,000	$10,000
CAP/Engineering/Design:	$50,000	$50,000	$50,000	$50,000
Fill & Grade Permit:	$2,500	$2,500	$2,500	$2,500
SEPA:	$10,000	$10,000	$10,000	$10,000
SW System/Const SWPPP:	$10,000	$10,000	$90,000	$90,000
Site Prep/Well Abandonment:	$10,000	$10,000	$10,000	$10,000
Dewatering/Disposal:	$250,000	$100,000	$100,000	$50,000
PRB Installation:	$0	$2,284,000	$0	$2,284,000
Asphalt Cap:	$0	$0	$64,000	$135,000
Cap Maintenance:	$0	$0	$5,000	$5,000
Institutional Controls:	$0	$7,500	$7,500	$7,500
Site Closure/Well Abandonment:	$50,000	$50,000	$50,000	$50,000
Total	$2,968,318	$4,169,016	$2,074,675	$3,085,773
20% Contingency	$593,664	$833,803	$414,935	$617,155
Total + Contingency	$3,561,981	$5,002,820	$2,489,611	$3,702,928

Reasons for contingency:

Assumes no sheet piling is needed in excavations. Volume estimates do not include layback.

Dewatering costs are an allowance; costs may differ based on treatment/disposal method chosen.

Assumes soil will be stockpiled and dewatered onsite. Moisture control amendment costs not included.

Does not account for replacement of any paved surfaces (to be done as part of site redevelopment).

Waste characterization costs come from 2021 report estimates