REMEDIAL INVESTIGATION/FEASIBILITY STUDY AND REMEDIAL ACTION REPORT

BMC ISSAQUAH FACILITY 5210 EAST LAKE SAMMAMISH PARKWAY SOUTHEAST ISSAQUAH, KING COUNTY, WASHINGTON Facility Site ID #8428648 Cleanup Site ID #7791

> Project No. 1099.25 April 13, 2016

Prepared for: BMC West Corporation



Prepared by: ZipperGeo Geoprofessional Consultants



April 13, 2016

BMC West Corporation 720 Park Boulevard, #200 Boise, Idaho 83712

Attn: Mr. Paul S. Street, CAO

RE: RI/FS and Remedial Action Report BMC Issaquah Facility 5210 East Lake Sammamish Parkway Southeast Issaquah, King County, Washington ZGA Project No. 1099.25 Facility Site ID #8428648 Cleanup Site ID #7791

Dear Mr. Street:

Zipper Geo Associates, LLC (ZGA) appreciates the opportunity to submit this combined Remedial Investigation/Feasibility Study and Remedial Action Report related to a historical release of gasoline at the BMC facility in Issaquah, Washington. Based on the results of post-remedial action soil sampling and four quarters of groundwater sampling, we are requesting a No Further Action determination on behalf of the owner.

If you have questions, or if we may be of further service in any way, please contact us. Thank you for working with us on this project, we look forward to the opportunity of working with you again in the future.

Sincerely, Zipper Geo Associates, LLC

Jon Einarsen, LG Principal



Jeff Tinklepaugh, GIT Staff Geologist

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1.0 INTRODUCTION

This Remedial Investigation/Feasibility (RI/FS) and Remedial Action report describes investigations and remedial actions completed and documented by Zipper Geo Associates (ZGA) at the BMC millworks and lumber yard located at 5210 East Lake Sammamish Parkway SE in Issaquah, King County, Washington (the Property). This work was completed in response to a release from underground storage tanks that were removed in 1989.

The purpose of the Remedial Investigation is to collect, develop and evaluate sufficient soil and groundwater data to determine what cleanup actions at the Property are necessary pursuant to the Model Toxics Control Act (MTCA) WAC 173-340-350(1) - (7).

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. In accordance with WAC 173-340-350(8), this FS includes "cleanup action alternatives that are protective of human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route".

The purpose of the Remedial Action is to remove the gasoline contaminated soil that was acting as a source area for groundwater contamination.

2.0 REMEDIAL INVESTIGATION

2.1 SITE IDENTIFICATION AND LOCATION

The Property is located at 5210 East Lake Sammamish Parkway Southeast, Issaquah, King County, Washington and comprises 15.15 acres. The Property is located in the southwestern quarter of the northeastern quarter of Township 24 N, Range 06 E, Section 21. The Property is identified as King County Tax Parcel #009500-0030 and is currently occupied by the BMC Issaquah Facility. A topographic map and 2016 air photo indicating the location of the Property is presented in Figure 1 and Figure 2, respectively.

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Figure 1. Approximate location of the Property depicted on the Issaquah, Washington Quadrangle (U.S. Geological Survey, 1950, photo-revised 1968 and 1973).





Figure 2 – 2016 Aerial Photograph (Google Earth). The property boundary is indicated by the black dashed line. The Site as defined by WAC 173-340-200 can be seen as the trapezoidal-shaped patch of fresh asphalt.



WAC 173-340-200 defines the Site as "any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located". In accordance with this definition, the Site is located within the west central part of King County tax parcel #009500-0030. The approximate location of the Site as defined by WAC 173-340-200 is indicated on Figure 2.

The Property lies at an elevation of approximately 60 feet above Mean Sea Level. The Property and nearby areas lying south and west are relatively level and lie only a few feet higher than Lake Sammamish, which is located about 4,000 feet to the northwest. The property is bounded by uplands to the north and east. The immediate vicinity of the Property consists of mixed developed and undeveloped land. A storm water detention pond bounds the north side of the Property, beyond which lies a church and undeveloped forested land. The Property is bounded to the east by a residential housing development and undeveloped forested land, beyond which lies moderate density residential housing. The Property is bounded to the south by a McDonald's restaurant and a commercial building formerly occupied by an Albertson's grocery store and currently occupied by a Value Village, beyond which lie commercial businesses adjacent to East Lake Sammamish Parkway Southeast. The Property is bounded to the west by East Lake Sammamish Parkway Southeast, beyond which lie several multi-story office buildings.

2.2 Property Development and History

The Property was utilized for agricultural purposes from at least 1936 until the existing warehouse buildings were constructed in 1966. Since that time the Property has been used for light manufacturing of lumber products, lumber warehousing, and wholesale and retail lumber sales. The Property contains one large warehouse used for retail showroom space, offices, training, lumber storage, manufacturing of lumber products, and storage of finished products. The Property also contains two open-sided lumber sheds, a smaller building utilized for lumber storage and for pre-finishing manufactured lumber products, and a smaller building formerly utilized as a maintenance shop and currently utilized for storage. Several smaller buildings and open-sided lumber sheds have been constructed since 1966. Some of these have subsequently been demolished.

2.2.1 Current and Future Site Use and Facilities

It is our understanding that the future use of the Property will be consistent with its current use.

2.2.2 Zoning and Comprehensive Plan Designation

The City of Issaquah Zoning Map (dated July 14, 2015) and Comprehensive Plan Land Designation Map (dated June 30, 2015) indicate that the Property is designated as MU (Mixed Use).

2.2.3 Transportation and Roads

The Property is bounded to the west by East Lake Sammamish Parkway Southeast. No other roads are proximal.

2.2.4 Utilities

The property is served by the City of Issaquah for potable water, sanitary sewer, and storm sewer. Puget Sound Energy serves the area for natural gas and electricity. According to an as-built plan provided by the owner, a 24-inch storm water pipe is located along the west side of the Site. This storm water pipe was identified along the west side of the Site during remedial action activities. No other utilities were identified



in the Site.

2.2.5 Potential Sources of Contamination

The likely source of contamination was leaking USTs, leaking distribution piping or pipe fittings, improper fuel handling by employees or the fuel distributor (i.e., over-fills and other spills), or some combination of these when the UST system was active prior to its decommissioning in 1989.

2.3 Site Discovery

ZGA reviewed the following report and letters prepared by others for the Property describing the discovery of contamination and subsequent actions:

- 1. "Environmental Investigation Results" dated April 6, 1998 prepared by TRC Corporation, hereafter referred to as the TRC report.
- 2. Letter from the Washington State Department of Ecology to BMC West Building Materials dated April 22, 2003.
- 3. Letter from Building Materials Holding Corporation to the Washington State Department of Ecology dated May 13, 2003.

A copy of each of these documents is included in Appendix A.

The TRC report describes two subsurface investigations that were completed near the main entrance to the Property in 1996 and 1997. The purpose of the investigations was to evaluate the nature and extent of petroleum contamination on the west side of the facility suspected to be related to the former presence of three gasoline underground storage tanks (USTs) formerly located in this area. The USTs were reportedly removed in 1989.

TRCs initial investigation consisted of advancing ten hollow-stem auger borings in the vicinity of the former USTs. Groundwater samples were collected from the hollow-stem auger (monitoring wells were not constructed). Four composite soil samples and three groundwater samples were submitted for laboratory analysis. Each sample was analyzed for BTEX (benzene, toluene, ethyl benzene, and total xylenes) using EPA Method 8020 and for total petroleum hydrocarbons using EPA Method 418.1. The second investigation consisted of advancing six direct-push explorations in the vicinity of the former USTs. Groundwater samples were collected using well points. Four discrete soil samples and six groundwater samples were submitted for laboratory analysis. Each sample was analyzed for BTEX and volatile petroleum hydrocarbons (gasoline) using EPA Method 8021B and 8015B, respectively. The analytical results for both investigations are summarized below.



Sample #	Media	Units	TPH or VPH	В	т	E	х
BH-1			99	0.010	0.004	0.0069	0.0065
BH-2			ND ¹	ND	ND	ND	ND
BH-5			ND	0.076	0.022	0.100	0.790
BH-6		malka	44	0.028	0.0022	0.008	0.031
BH-A, 2-4'	S S	iiig/ kg	2,200	11	5.2	24	280
BH-B, 2-4'			2,100	15	8.8	15	110
BH-E, 2-4'			160	1.0	0.29	1.4	4.1
BH-F, 2-4'			0.650	0.0047	0.0019	0.0035	0.0064
Current Clean	up Standard		30/100 ²	0.03	7	6	9
BH-1			2,100	3.0	2.3	2.9	3.8
BH-3			280	ND	ND	ND	6.7
BH-5	e		3,000	7.3	1.5	10	110
BH-A	vat		5,100	62	96	130	1,300
BH-B	h	ug/L	13,000	170	110	350	1,600
BH-C	no		ND	ND	ND	ND	ND
BH-D	ۍ (ND	ND	1.0	ND	ND
BH-E			870	25	4.6	26	8.2
BH-F			1,500	73	6.0	75	59
Current Clean	Current Cleanup Standard			5	1,000	700	1,000

TPH, total petroleum hydrocarbons; VPH, volatile petroleum hydrocarbons; B, benzene; T, toluene; E, ethyl benzene; X, xylenes. ¹ Not detected; ² the lower cleanup level applies if benzene is present. The shaded values exceed current cleanup levels defined in the Model Toxics Control Act (WAC 173-340).

The analytical results for 11 of 17 of the soil and groundwater samples described in the TRC report exceed current cleanup levels defined in the Model Toxics Control Act (WAC 173-340). A copy of the TRC report was provided to the Washington State Department of Ecology (Ecology) and the Property was placed on the Leaking Underground Storage Tank list.

2.4 Supplemental Subsurface Investigation

BMC engaged ZGA in 2013 to complete additional subsurface investigation to further assess the nature and extent of soil and groundwater impacts near the former UST cavity. Activities associated with this task included completion of the following tasks:

- 1. Performance of a geophysical investigation in an effort to locate the former UST cavity on the west part of the Property.
- 2. Subsurface exploration using direct-push methods in the vicinity of the former UST cavity.
- 3. Installation of four groundwater monitoring wells near the former UST cavity.
- 4. Soil and groundwater sampling.
- 5. Analytical laboratory testing.

Each of these investigation activities is summarized below.



2.4.1 Geophysical Investigation

Underground Detection Services, Inc. (UDS) performed the geophysical investigation under subcontract to ZGA on April 17, 2013. A copy of their report is included in Appendix B. UDS utilized a ground penetrating radar device to locate the former UST cavity. The search was focused in the area of the former UST cavity as identified by TRC Corporation in their 1997 report. UDS identified an approximately 625 square-foot area that appears to have, in their opinion, been excavated and backfilled with soil that contrasts with surrounding soil. No other large anomalies were identified.

2.4.2 Subsurface Exploration

Direct-push field activities were conducted on April 29 and April 30, 2013 by Mr. James Georgis and Mr. Jon Einarsen, both licensed geologists with ZGA.

Figures indicating the approximate locations of the soil explorations and groundwater monitoring wells in relation to the pertinent structures and general site boundaries is attached as Figure 3 and Figure 4 (Appendix C).

Nine direct push soil borings (GP-1 to GP-9) were advanced in the vicinity of the former UST cavity on the west side of the Property. One direct-push boring (GP-10) was advanced adjacent to a still located outside of the pre-finish room on the east part of the Property.

A direct-push sampling device was supplied and operated by Cascade Drilling. The device utilized a directpush sampler equipped with disposable PVC sample sleeves. Throughout the drilling operation, soil samples were obtained continuously (to the extent practical) from four-foot long pushes driven into the ground using 550 foot-pound, percussion hammer. The steel sampling tube was extracted from the hole and the liners were removed and split open. All of the direct-push explorations were advanced to depths of approximately 15 feet below the ground surface (bgs). An effort was made to sample soil continuously from the ground surface to the total depth of each exploration, but sample recovery varied in each exploration.

A field log of each exploration was maintained, including the thickness and depth of each soil unit encountered and the depth to the uppermost water table. Soil samples were observed to document soil lithology, color, and moisture content. Soils were logged in general accordance with American Society for Testing and Materials (ASTM) Practice Designation D-2488, *Standard Practice for Description of Soils (Visual-Manual Procedure)*. Exploration logs are included in Appendix D of this report.

2.4.3 Groundwater Monitoring Well Installation

Dedicated groundwater monitoring wells were completed in GP-1, GP-6, GP-7, and GP-8. These wells are designated as MW-1 through MW-4 (Figure 3). All four wells are screened from 5 feet to 15 feet bgs. The monitoring wells consist of 2-inch inside diameter, schedule 40, flush-threaded PVC. A ten-foot section of 0.010-inch slotted screen was mated to an appropriate length section of blank riser, which extended to approximately 0.25 feet below the ground surface. The annular space between the well casing and the borehole wall was filled with #10-20 silica sand extending approximately two feet above the screened interval. A hydrated bentonite seal was placed above this, and the wells were completed at the ground surface with lockable, flush-mount monuments that were cemented in place. The monitoring wells were constructed in accordance with the Washington State *Minimum Standards for Construction and Maintenance of Wells* (WAC 173-160). Monitoring well construction details are provided along with the exploration logs in Appendix D.



The monitoring wells were subsequently developed by purging with a bailer on May 8, 2013. Approximately 22 gallons of development water was generated during well development activities. Soil cuttings, development groundwater, and equipment cleaning water generated during the field activities were placed in Department of Transportation (DOT) approved, 55-gallon steel drums, closed and appropriately labeled with project-specific information and initial accumulation date. This investigation-derived waste was properly disposed along the impacted soil and groundwater during remedial action activities (see Section 4 of this report).

2.4.4 Soil and Groundwater Sampling

Two soil samples were retained for analysis from each exploration, except that three were retained from GP-1. Soil samples retained for chemical analysis from the direct-push explorations were collected at depths ranging from approximately 4 feet to 12 feet bgs. The shallow direct-push samples were collected in an effort to identify the lateral extent of contamination; the deeper samples were collected in an effort to quantify the vertical distribution of contamination.

All soil samples were extracted by hand from the direct-push sample liner using disposable gloves and placed directly into laboratory supplied glassware and preserved in accordance with EPA Method 5035B.

One groundwater sample was collected and analyzed from MW-1 to MW-4 on May 24, 2013. Prior to sample collection, each monitoring well was purged until consistent values (i.e., less than 10% variance between consecutive readings) were obtained for pH, turbidity, temperature and conductivity using a Horiba U-22 multi-parameter water quality meter equipped with a flow through cell.

Groundwater was collected with a peristaltic pump utilizing low flow techniques. The intake of the pump was set approximately one foot below the top of the screened interval in each well. Dedicated polyethylene tubing was used for each monitoring well. Discharge from the pump was directed into sample containers supplied by the laboratory, and preserved as appropriate for specific analyses.

Each sample container was labeled with the site name, date, time, exploration number, sample number, and sampling personnel. Sample containers were placed in a chilled cooler immediately after sampling, and subsequently transported to the analytical laboratory by ZGA under chain-of-custody procedures.

2.4.5 Analytical Laboratory Testing

Nineteen soil samples and four groundwater samples were submitted for chemical analysis. All samples were analyzed by ALS Laboratories of Everett, a Washington State accredited laboratory, as described below:

- Total petroleum hydrocarbons (TPH) in the gasoline, diesel and oil range using Northwest Methods NWTPH-GX and NWTPH-DX.
- BTEX (benzene, ethylbenzene, toluene, and xylenes) and MTBE (methyl tertiary-butyl ether) using EPA Method 8021.
- Lead using EPA Method 6020 (soil) and 200.8 (groundwater).

The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix E. All analyses were completed using standard turnaround times. Data packages were checked for completeness immediately upon receipt from the laboratory to ensure that data and QA/QC information



requested were present. Data quality was assessed by considering holding times, surrogate recovery, method blanks, matrix spike and matrix spike duplicate recovery, and detection limits.

2.4.6 Subsurface Conditions

Detailed lithologic descriptions are presented on the soil boring logs included in Appendix D. In general, subsurface conditions were consistent in each direct-push exploration and generally consisted of about two to four inches of asphalt pavement underlain by about two to four feet of gravely sand and sandy gravel fill soils, in turn underlain by native silty sand to gravelly sand interbedded with silt.

Groundwater was encountered in each of the direct-push borings at depths ranging from about four to six feet at the time of drilling. The relative location and elevation of the PVC casing for each of the four groundwater monitoring wells were surveyed by PLS, Inc. of Issaquah using an arbitrary datum. Static groundwater levels were subsequently measured in these monitoring wells on May 24, 2013 as summarized in Table 2.

Monitoring Well	Relative Casing Elevation (Feet)	Depth to Groundwater (Feet)	Relative Groundwater Elevation (Feet)
MW-1	99.99	2.19	97.80
MW-2	99.45	1.84	97.61
MW-3	99.73	2.59	97.14
MW-4	99.96	2.12	97.84

Table 2. Groundwater Elevations (May 24, 2013)

A groundwater contour map is presented in Figure 4 (Appendix C). Based on these results, groundwater in the immediate vicinity of the former UST cavity was estimated to flow in a west-southwesterly direction with a gradient of approximately 0.0235 ft./ft. at that time. It should be noted that the depth to groundwater and groundwater flow directions will likely vary depending upon seasonal variations in rainfall and other factors.

2.4.7 Analytical Laboratory Results

Soil and groundwater quality summary results are presented in Table 3 and Table 4, respectively. Analytical results that exceed applicable cleanup levels are highlighted. Complete laboratory reports and chains-of-custody are included in Appendix E. Additional discussion and interpretation of analytical results relative to applicable cleanup levels is included in Section 2.8. Summarized analytical results are also presented in Figure 3 (soil) and Figure 4 (groundwater, Appendix C).

Soil Quality

Nineteen soil samples were collected from GP-1 to GP-9 in the assumed vicinity of the former UST cavity. Diesel-range organics (DRO), oil-range organics (ORO) and lead were not detected above laboratory reporting limits, or were detected in concentrations below applicable cleanup levels in all 19 samples. Gasoline-range organics (GRO) and BTEX were not detected above laboratory reporting limits, or were detected in concentrations below applicable cleanup levels in GP-2, GP-3, GP-6, GP-7 and GP-9.

GRO was detected in concentrations above cleanup levels at depths of about five feet in GP-1, GP-4, GP-5, and GP-8. Certain BTEX components also exceeded cleanup levels in GP-1 and GP-5 at a depth of about five feet. GRO and BTEX were not detected above laboratory reporting limits, or were detected in



concentrations below applicable cleanup levels in deeper samples collected in these four borings, indicating that the soil contamination is limited to shallow soil, and is likely influenced by historical groundwater elevation fluctuations. Based on the available information, the estimated extent of soil contaminated above cleanup levels is indicated on Figure 3.

Sample	Depth (ft.)	Total Petroleum Depth Hydrocarbons (ft.) (mg/Kg)			Vo	Metals (mg/Kg)			
		GRO	DRO	ORO	В	Т	E	Х	Pb
GP1-1	5	530	200	<50	0.20	<0.25	4.4	6.3	7.9
GP1-2	7	39	<25	<50	<0.03	<0.05	0.40	0.83	3.9
GP1-3	12	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.6
GP2-1	5	36	<25	<50	<0.03	<0.50	0.11	<0.20	5.4
GP2-2	8	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.8
GP3-1	5	<3.0	29	50	<0.03	<0.05	<0.05	<0.20	2.2
GP3-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.7
GP4-1	5	1,100	70	<50	<0.30	<0.50	<0.50	<2.0	6.6
GP4-2	9	4.5	<25	<50	<0.03	<0.05	<0.05	<0.20	4.3
GP5-1	5	2,800	320	<50	2.0	<2.0	41	240	8.7
GP5-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.7
GP6-1	5	<3.0	43	250	<0.03	<0.05	<0.05	<0.20	2.0
GP6-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.3
GP7-1	4	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.4
GP7-2	9	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	4.0
GP8-1	5	1,900	85	<50	<0.60	<1.0	<1.0	<4.0	6.7
GP8-2	8	3.8	<25	<50	0.030	<0.05	<0.05	<0.20	2.4
GP9-1	4	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.1
GP9-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.5
Method A Level	A Cleanup	100/30*	2,000	2,000	0.03	7	6	9	250

Table 3. Summarized Analytical Results (Soil)

mg/Kg: milligrams per kilogram (parts-per-million); <: Not detected above indicated laboratory minimum reporting limit. Shaded values exceed MTCA Method A cleanup levels (see Section 4). B, benzene; T, toluene; E, ethylbenzene; X, total xylenes. Please refer to Appendix D for the complete set of analytes and analytical results for VOC. *The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.



Groundwater Quality

Groundwater samples were collected from four wells installed near the assumed location of the former UST cavity (MW-1 to MW-4). TPH, BTEX, and lead were not detected above laboratory reporting limits in MW-2 and MW-3. The reported concentration of GRO and MW-1 equals the cleanup level, and the reported concentration in MW-4 exceeds the cleanup level. BTEX components were also detected in MW-1 and MW-4, but in concentrations below cleanup levels.

Monitoring	Tota Hyo	ll Petrole drocarbo (ug/L)	um ns	Volatile Organic Compounds (ug/L)					Metals (ug/L)	
weii	GRO	DRO	ORO	В	т	E	x	MTBE	Pb (Total)	Pb (Dissolved)
MW-1	1,000	<130	<250	<1.0	<1.0	24	38	<3.0	<1.0	<1.0
MW-2	<50	<130	<250	<1.0	<1.0	<1.0	<3.0	<3.0	<1.0	<1.0
MW-3	<50	<130	<250	<1.0	<1.0	<1.0	<3.0	<3.0	<1.0	<1.0
MW-4	2,400	<130	<250	<1.0	1.1	69	200	<3.0	<1.0	<1.0
Method A Cleanup Level	1,000/ 800*	500	500	5	1,000	700	1,000	20	15	15

Table 4. Summarized Analytical Results (Groundwater)

ug/L, micrograms per liter (parts-per-billion); GRO, gasoline-range organics; DRO, diesel-range organics; ORO, oil-range organics; B, benzene; T, toluene; E, ethylbenzene; X, total xylenes; MTBE, methyl T-butyl ether; Pb, lead. *The higher value applies if benzene is not present.

Groundwater Geochemistry

An evaluation of groundwater geochemistry was completed in an effort to characterize the oxidation state of groundwater in the vicinity of the former UST cavity. The oxidation state can be estimated by measurement with oxidation–reduction potential (ORP) and dissolved oxygen (DO) field instruments.

DO and ORP were measured with a Horiba U-22 multi-meter equipped with a flow cell. DO ranged from 9.61 to 9.99 mg/L and ORP ranged from 226 to 287 millivolts. We interpret these results to indicate the uppermost aquifer underlying in the Site is in an aerobic condition.

2.4.8 Constituents of Concern

Soil and groundwater samples at the Site have been analyzed for TPH, lead, and BTEX. Constituents of concern for the Site consist of GRO, benzene, ethylbenzene, and xylenes.

2.4.9 Potential Receptors

Direct Contact

Impacted soil and groundwater are located less than 5 feet beneath the ground surface, and therefore construction workers could be at risk of direct contact.

Surface Water and Sediment

Issaquah Creek is the nearest waterbody to the property and meanders to within approximately 1,100 feet southwest of the down gradient end of the Site. Based on distance and the lack of detections in one down gradient well (MW-3) it is unlikely that Issaquah Creek has been impacted by the groundwater plume on the Site. Therefore, surface water and sediment in Issaquah Creek have not been sampled.



Air/Soil Vapor

Indoor air and soil vapor sampling has not been completed at the Site. Based on the available soil and groundwater quality data, contaminated soil and groundwater is not present beneath or proximal to buildings at the property. The reported concentration of BTEX in groundwater do not exceed groundwater screening levels defined in the 2015 revisions to Ecology (2009).

Natural Resources and Wildlife

The Site is fully developed and covered with asphalt pavement and is not likely to support natural resources or wildlife. The property is bounded by commercial development to the west and south and by residential neighborhoods to the east. A wooded slope bounds the north and northeastern edge of the property and could act as a wildlife corridor. Additionally, there is a detention pond in the northwestern corner of the Property, which covers approximately 20,000 square feet, that may support wildlife. However, these areas are not located within the Site.

2.5 Natural Conditions

2.5.1 Physiographic Setting and Topography

The Property lies at an elevation of approximately 60 feet above Mean Sea Level. The Property and nearby areas lying south and west are relatively level and lie only a few feet higher than Lake Sammamish, located about 4,000 feet to the northwest. The nearest downgradient water body is Issaquah Creek, which meanders to within 1,100 feet southwest of the property and flows to the northwest into Lake Sammamish. The property is bounded by uplands to the north and east.

2.5.2 Geology

Geologic conditions in the vicinity of the Property have been mapped by Booth and Minard (1992). According to this geologic map, the Property is underlain by young Quaternary alluvial sediments (unit Qyal, Figure 5), which extend south and west to Interstate 90 and northwest to Lake Sammamish. These soils consist of beach and lacustrine (lake) deposits.

Site specific lithologic descriptions are presented on the soil boring logs included in Appendix D. Fill soils were observed at depths of up to 4 feet. Fill soils varied greatly in grain size distribution and included silty sand, gravelly sand, sandy gravel, and gravel. Native soils were encountered at depths of 2 feet or greater and appeared as gray to brown deposits of silty clay, clayey silt, fine sandy silt, silty fine sand, silty sand, sravelly sand, and sandy gravel. We interpret a unit of brown, wet, clayey silt, observed at 3 to 5 feet below ground surface in seven boreholes, to be a possible relic topsoil. We also interpret a unit of light-gray silt with a trace to some wood fragments, observed at 13 to 15 feet below ground surface in five boreholes, to be a possible volcanic ash deposit.





Figure 5. A portion of the Geologic Map of the Issaquah Quadrangle (Booth and Minard, 1992). The approximate location of the Site is indicated by the red arrow.

2.5.3 Surface Water

The Site and the Property are paved and developed. Surface water runoff at the Property drains to catch basins, which in turn drain to a retention pond located immediately north of the northwest part of the Property.

2.5.4 Groundwater

Based on a groundwater contour map on the King County Water and Land Services web site, produced by Golder Associates in 1993, shallow groundwater in the vicinity of the Site flows in a north-northwesterly direction (Figure 6). Groundwater was observed between about 2 to 3 feet below the ground surface during our post-remedial action groundwater sampling (see Section 5 of this report). Depth to groundwater and groundwater flow directions will likely vary seasonally.





Figure 6. Groundwater contours. The approximate location of the property is indicated by the red arrow.

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Based on our review of a well log database maintained by the Washington State Department of Ecology (http://apps.ecy.wa.gov/welllog/index.asp), one water supply well installed in 1966 was identified on the Property. The well was 62 feet deep and penetrated a confined aquifer at a depth of 61½ feet. The well was artesian with three feet of water measured above the casing. The drillers well log indicates that native soils consisted of about 6 feet of peat and clay, underlain by sand and gravel to the total depth of the boring. The well was decommissioned by filling with cement-bentonite slurry in 1990.

2.5.5 Terrestrial Ecological Evaluation (TEE)

In accordance with WAC 173-340-7492(2)(c), the TEE can be ended because no hazardous substance listed in Table 749-2 will be present in soil following the completion of the remedial action. See Section 4 of this report. The only contaminant of concern listed in Table 749-2 is gasoline, which has a target cleanup level of 200 mg/kg for unrestricted land use and 12,000 mg/kg for commercial sites. The highest residual concentration of gasoline in soil is 120 mg/kg (see Table 9 of this report).

2.5.6 Conceptual Model

Gasoline and BTEX were released to soil and groundwater sometime during or before 1989. Documentation regarding the condition of the USTs and fuel distribution system at the time of removal in 1989 has not been identified. Based on the results of soil and groundwater sampling and analysis as described herein, it is reasonable to assume that the source of the release was leaking USTs or associated distribution piping.

The source area is the former location of the USTs. A smear zone exists between about 2 feet and 5 feet, within the historical and seasonal fluctuation of groundwater at the Site. Groundwater at the site is assumed to flow in a generally westerly direction, towards Lake Sammamish. Given the length of time since the release, this conceptual model assumes that the groundwater plume is stable or shrinking.

Based on water quality results, the soil to groundwater pathway is complete. The Site is completely covered with asphalt pavement, therefore the soil exposure route (ingestion and dermal contact) for humans and wildlife is incomplete. Groundwater is not being extracted from the Site for beneficial use and therefore the groundwater exposure route for ingestion and dermal contact is incomplete, but could become complete in the future. Contaminated soil and groundwater is not present beneath or proximal to buildings, therefore the soil and groundwater to indoor air route for inhalation are incomplete. Construction workers are potential receptors and the direct exposure route to soil and groundwater could be complete during potential future subsurface improvements.

Issaquah Creek is the nearest waterbody to the property and meanders to within approximately 1100 feet southwest of the down gradient end of the Site. Based on distance it is unlikely that Issaquah Creek has been impacted by the groundwater plume on the Site.

2.7 Cleanup Standards

Soil and groundwater at the Site are confirmed to be impacted with gasoline, benzene, ethylbenzene, and xylenes. Method A cleanup standards are used for the purposes of this RI based on the potential for future use of groundwater on or near the Site and based on the potential for direct exposure to construction workers. Method A cleanup levels for COC are defined in Table 5.



Table 5. Cleanup Standards

Media	Gasoline	Benzene	Ethylbenzene	Xylenes
Soil	100/30* mg/kg	0.03 mg/kg	6 mg/kg	9 mg/kg
Groundwater	1,000/800** ug/L	5 ug/L	700 ug/L	1,000 ug/L

*The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.

**The higher value applies if there is no detectable benzene in groundwater.

2.7.1 Points of Compliance

The points of compliance are the locations at which cleanup levels for COC must be attained. The points of compliance are established in accordance with WAC 173-340-740(6)(b) for soil and WAC 173-340-720(8)(b) for groundwater.

<u>Soil</u>

The point of compliance is based on groundwater protection and protection from vapors and is thus established as all soil throughout the Site.

Groundwater

The point of compliance for groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected. For the purposes of this RI the point of compliance for groundwater is established from the ground surface to a depth of 15 feet.

Vapor

The vapor intrusion pathway will be considered incomplete when the cleanup action objectives have been achieved at the points of compliance for soil and groundwater on the Property.

2.8 Areas Requiring Cleanup

2.8.1 Constituents of Concern

Soil and groundwater samples at the Site have been analyzed for TPH, lead, and BTEX. Constituents of concern for this site include GRO, benzene, ethylbenzene, and xylene.

The concentration of gasoline in soil samples GP1-1 (530 mg/Kg), GP4-1 (1,100 mg/Kg), GP5-1 (2,800 mg/Kg) and GP8-1 (1,900 mg/Kg) exceeds the Method A cleanup level (100 mg/Kg or 30 mg/Kg in the presence of benzene). The concentration of benzene in GP1-1 (0.20 mg/Kg) and GP5-1 (2.0 mg/Kg) exceeds the Method A cleanup level (0.03 mg/Kg) and equals the cleanup level in GP8-2.

The concentration of gasoline exceeds the cleanup level in MW-4 and equals the cleanup level in MW-1.

2.8.2 Soil – Vertical and Lateral

Soil is impacted above cleanup levels near the source area (the former UST cavity), and to a lesser degree in a smear zone north and west of the source area. Soil contaminated above cleanup levels was observed in samples taken at depths of approximately 5 feet. Assuming that a smear zone exists within the historic and seasonal groundwater levels, contaminated soils likely exist between approximately 2 and 5 feet below ground surface. The estimated extent of the area that includes soil contaminated above cleanup levels is indicated on Figure 3 (Appendix C).



2.8.3 Groundwater – Vertical and Lateral

Groundwater in MW-4 has exceeded cleanup levels for gasoline but not BTEX. Gasoline and BTEX have not been detected, or have been detected in concentrations below cleanup levels in the other three wells. The estimated extent of the area that includes or has included groundwater contaminated above cleanup levels is indicated on Figure 4 (Appendix C). The vertical extend of groundwater contamination is assumed to coincide with the smear zone, from about 2 feet to about 8 ½ feet deep.

2.8.4 Surface Water and Sediment

Impacts to surface water and sediment in Issaquah Creek are not likely given groundwater quality results in the down gradient well.

2.8.5 Indoor Air and Soil Vapor

It is unknown if the soil to indoor air and groundwater to indoor pathways are complete. Remedial action associated with the cleanup of soil and groundwater at the Site should effectively mitigate this risk.

3.0 FEASIBILITY STUDY

The purpose of this Feasibility Study (FS) is to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site. In accordance with WAC 173-340-350, this FS includes "cleanup action alternatives that are protective of human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route".

Ten remedial action alternatives were evaluated for this FS. Alternatives were initially screened based on an assessment of effectiveness and implementability. Alternatives deemed to be not protective, feasible, or appropriate for the subject site were eliminated from further evaluation, except that certain alternatives were retained as a component of other technologies. Those alternatives that were deemed effective, could be implemented with minimal impacts to the community, workers, and the environment and that had a lower cost were retained for further evaluation. Methods selected for further evaluation included "Monitored Natural Attenuation", "Excavation and Offsite Disposal", and "Enhanced Bioremediation".

The recommended remedy utilizes excavation and offsite disposal combined with enhanced bioremediation. This approach optimizes achieving the Remedial Action Objectives at the best overall cost.

3.1 Remedial Action Objectives

The objectives of this FS were to identify a range of remedial action alternatives that are appropriate for the Site and to document and develop the information necessary to select an appropriate remedial action alternative consistent with WAC 173-340-360. The Remedial Action Objectives (RAOs) are media specific goals for protecting human health and the environment. Soil and groundwater comprise the media of concern at the Site. The Remedial Investigation as described in Section 2 of this report did not identify any ecological risk at the Site. Thus, the RAOs focus on the protection of human health due to potential contact with gasoline-range TPH and BTEX. The human health RAOs are as follows:

1. Achieve the MTCA Method A cleanup levels for gasoline-range TPH and BTEX in soil and groundwater at the Site.



3.2 Screening of Remedial Action Alternatives

An initial screening of remedial action alternatives was completed to reduce the number alternatives retained for detailed analysis. In accordance with WAC 173-340-360, the following elements were qualitatively evaluated for each alternative:

Protectiveness. Overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, time required to reduce risk at the facility and attain cleanup standards, on-site and off-site risks resulting from implementing the alternative, and improvement of the overall environmental quality.

Permanence. The degree to which the alternative permanently reduces the toxicity, mobility or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated.

Cost. The cost to implement the alternative, including the cost of construction, the net present value of any long-term costs, and agency oversight costs that are cost recoverable. Long term costs include operation and maintenance costs, monitoring costs, equipment replacement costs, and the cost of maintaining institutional controls. Cost estimates for treatment technologies shall describe pretreatment, analytical, labor, and waste management costs. The design life of the cleanup action shall be estimated and the cost of replacement or repair of major elements shall be included in the cost estimate.

Effectiveness. Long term effectiveness includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time hazardous substances are expected to remain on site at concentrations that exceed cleanup levels, the magnitude of residual risk with the alternative in place, and the effectiveness of controls required to manage treatment residues or remaining wastes. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: Reuse or recycling; destruction or detoxification; immobilization or solidification; on-site or off-site disposal in an engineered, lined and monitored facility; on-site isolation or containment with attendant engineering controls; and institutional controls and monitoring.

Risk. The risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks.

Implementability. Ability to be implemented including consideration of whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with existing facility operations and other current or potential remedial actions.



Ten remedial action alternatives were evaluated for this FS. These are tabulated on Table 6, which summarizes the effectiveness, implementability, implantation risk, and relative cost. Alternatives deemed to be not effective or implementable were eliminated from further evaluation, except that the "Monitored Natural Attenuation" alternative was retained as a baseline and the "Groundwater Monitoring" alternative was retained as a component of other technologies. Remedial methods retained for further evaluation included "Excavation and Offsite Disposal" and "Enhanced Bioremediation".



Table 6. Remedial Action Alternatives Screening

					Screening Criteria				
Alternative	Technology	Media	Description	Effectiveness	Implementability	Implementation Risk	Cost	Screening Comments	Retained?
No Action	None	GW/S	No Action	Not effective	Easy	None	None	Does not prevent potential exposures. Does not monitor groundwater quality or plume dynamics.	No
Institutional Controls	Groundwater Monitoring	GW	Groundwater sampling and analysis.	Effective for documenting groundwater quality conditions and plume dynamics.	Easy	Low	Low	Retained to document groundwater quality and effectiveness of other technologies.	Yes
	Deed Restrictions	GW/S	Restrict access to soil and groundwater.	Effective at preventing direct contact with soil and groundwater.	Easy to Difficult	Low	Low	If necessary, a deed restriction would be practical for Site.	No
	Monitored Natural Attenuation	GW	Passive treatment of groundwater using natural processes.	The continued presence of TPH exceeding cleanup levels in soil and groundwater suggest that MNA is not effective.	Easy	Low	Low	Retained as a baseline for comparison to other technologies.	Yes
	Chemical Oxidation	GW/S	Chemically oxidizes and destroys the contaminant.	Can be effective for treatment of contaminated groundwater and soil below the water table.	Moderate-Difficult	Moderate	Moderate	High reliability for GRO and BTEX, but the oxidant must come into direct contact with the contaminant. Very effective in groundwater and saturated soils but less effective in the vadose zone. May require multiple rounds of injections.	No
In – Situ Treatment	Soil Vapor Extraction	S	Apply a vacuum to the vadose zone to extract volatile organic compounds	Can be an effective method of removing GRO and BTEX from the vadose zone.	Moderate	Low	Moderate	Requires multiple extraction wells with a radius of influence sufficient to reach contaminated soil within the Site. Not effective for remediation of contaminated groundwater. Soil vapor effluent may need to be treated prior to release to the atmosphere.	No
	In-Situ Air Stripping	GW	Uses a double screened well and injected air to strip volatile components.	Can be an effective method of removing GRO and BTEX in groundwater.	Moderate	Low	Moderate	Cost is high due to need for multiple treatment wells. Exhaust air may require treatment.	No
	Enhanced Bioremediation	GW/S	Encourages the biodegradation of contaminants by native microbes.	Can be effective for treatment of contaminated groundwater and soil below the water table	Easy	Low	Moderate	Cost, implementation risk, and implementability vary with method of application. Injection wells are easy to install but may not adequately disperse the product. Applying an enhanced bioremediation product in the base of an excavation will optimize dispersal, provided that the product is applied beneath the water table.	Yes
Ex-Situ Treatment	Dual Phase Extraction	GW	A high vacuum is applied to simultaneously remove contaminated ground water and volatile components from the vadose zone.	Can be effective in treating contaminated groundwater and soil in the vadose zone.	Moderate	Low	Moderate	Can hydraulically contain offsite migration of contaminants. Can mitigate the potential for vapor intrusion. Extracted groundwater and soil gas may need to be treated prior to disposal. Multiple treatment wells needed.	No
	Pump & Treat	GW	Pump contaminated groundwater and treat at the surface.	Ineffective for vadose zone soils.	Easy	Low	High	Pump & Treat does not have a history of high reliability. Requires construction of a water treatment system or disposal option.	No
Excavation / Off-Site Disposal Without Treatment	Excavation and Off-Site Disposal	S	Excavate contaminated soil and dispose at licensed landfill.	Highly effective for removal of GRO and BTEX in the vadose and smear zones.	Easy	Low	Moderate	When the extent of soil contamination is well defined, excavation and off-site disposal is a straightforward method of removing contaminated soil from the site.	Yes

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3.3 Site Specific Remedial Action Alternatives

Based on the preliminary screening of the Remedial Action Alternatives, three alternatives were retained for further evaluation. The alternatives retained are:

- Alternative A: Monitored Natural Attenuation (MNA)
- Alternative B: Excavation and Offsite Disposal
- Alternative C: Enhanced Bioremediation

The Monitored Natural Attenuation alternative is retained to provide a baseline for costs and risks at the Site. Groundwater monitoring was also retained as a method of documenting groundwater quality and effectiveness of remedial efforts. Excavation and offsite disposal of contaminated soil was retained as the primary method of remediation. Enhanced bioremediation was retained as a supplement to excavation and offsite disposal.

3.3.1 Monitored Natural Attenuation

"Monitored natural attenuation" (MNA) refers to the reliance on natural attenuation processes to achieve the RAOs. Natural attenuation includes a variety of physical, chemical, and biological processes that, under favorable conditions, reduce the mass, toxicity, mobility, volume, and/or concentration of contaminants in soil and/or groundwater. Natural attenuation includes "nondestructive" processes such as dispersion, adsorption, dilution and volatilization, and "destructive" processes such as biodegradation. Biodegradation is the preferred attenuation mechanism, because it results in actual reduction of contaminant mass. However, the measured concentrations of GRO and BTEX components in soil and groundwater at the site suggest that, despite a period of approximately 27 years since the removal of the USTs, the rate of natural attenuation is not likely to achieve the RAOs in a reasonable time span.

3.3.2 Excavation and Offsite Disposal

Excavation and Offsite Disposal consists of manually removing contaminated soil and exporting it to a licensed disposal facility. The effectiveness of this alternative depends on the accuracy of the estimated area of contamination and the thoroughness of the excavation. The process can be monitored and adjusted based on field testing for contaminants. A technician can field screen soil samples for TPH using "sheen tests" and a Photoionization Detector (PID). After the contaminated soil is removed, the resulting excavation is backfilled with suitable clean fill material. Groundwater monitoring can be implemented in the area after the excavation and disposal is complete to analyze the effectiveness of the remediation. This process can expose construction workers and field technicians to the discussed contaminants and requires a health and safety plan to be completed before work can begin.

3.3.3 Enhanced Bioremediation

Enhanced Bioremediation is a broad term for encouraging the consumption of contaminants by native organisms. In this case, Enhanced Bioremediation refers to the application of an oxygen releasing compound (ORC) to saturated soil. Oxygen is utilized by native microbes during the consumption of petroleum hydrocarbons. Therefore, increasing the oxygen available to the native microbes increases their capacity to consume TPH. Application methods and ORC products can be tailored to achieve the RAOs while taking into consideration site-specific geological and financial constraints. ORC compounds activate upon contact with water, which limits their effectiveness in the subsurface to saturated soils.



3.4 Evaluation of Remedial Action Alternatives

A detailed analysis of Alternatives A, B, and C with respect to the requirements of WAC 173-340-360 (Selection of Cleanup Actions) is presented in Table 7. Estimated costs to implement the alternatives are presented in Section 3.5.



Table 7. Selected Alternatives Evaluation

Alternative A	 Protectiveness Degree to which existing risks are reduced Time required to reduce the risk and attain cleanup standards On-site and off-site risks resulting from implementing the alternative Improvement of the overall environmental quality 	 Permanence Degree of permanent reduction of contaminant toxicity, mobility, and volume Adequacy of destruction of hazardous substances Reduction or elimination of substance release, and source of release Degree of irreversibility of waste treatment processes Characteristics and quantity of generated treatment residuals 	 Long Term Effectiveness Degree of certainty of that the alternative will be successful Reliability while contaminants remain on-site greater than cleanup levels Magnitude of residual risk Effectiveness of controls implemented to manage residual risk 	 Management of Short Term Risks Risk to human health and the environment associated with the alternative during construction and implementation The effectiveness of measures taken manage short-term risks 	 Technical and Administrative Implementability Technical possibility Availability of off-site facilities, services, and materials Administrative and regulatory requirements Schedule, size, and complexity of construction Monitoring requirements Site access for construction, operations, and monitoring Integration with existing site operations or other current and potential future remedial action
Monitored Natural Attenuation	This alternative provides some reduction to existing risk in groundwater, given continued advection, dispersion, sorption, and volatilization. Time required to reduce risks and attain cleanup standards is not within a reasonable time frame, and may not be achievable (particularly for soil). No on- or off-site risks result from implementing MNA as no actions are required for implementation. On- and off-site risks remain the same as currently exist. MNA provides no improvement in overall environmental quality when implemented as a standalone technology because no actions are conducted as part of implementation. Remedial action objectives are not achieved.	This alternative does not provide a reduction of contaminant toxicity, mobility, or volume. The destruction of contaminants does not appear to be occurring at the Site. Decreasing concentrations appear to be related to advection, dispersion, sorption, and volatilization. This alternative does not reduce, eliminate, or control sources as MNA does not address contaminated soil that appears to be the source of groundwater impacts. Off-site migration of contaminated groundwater remains active. Except for investigation derived waste (IDW) associated with groundwater sampling, no treatment residuals are generated by implementation of an MNA alternative	This alternative provides a low degree of success within a reasonable time frame. It is not expected to achieve cleanup goals for soil. This alternative is not reliable because contaminant destruction does not appear to be occurring at a high enough rate to achieve the RAOs in a reasonable time frame. The magnitude of residual risk with this alternative is unchanged from the existing conditions. The controls in place to manage risk include surface capping, which adequately manages direct-contact risk; however, there are no controls to manage ongoing migration of PCE from soil to groundwater.	Except for managing IDW, no short- term risk is associated with construction of this alternative because no construction activities will be conducted. Existing risk remains consistent with the current site risks.	This alternative is technically possible to implement and involves no construction. No facilities, services, or materials are needed for alternative implementation because no construction will be performed. However, this alternative is not administratively implementable because it does not meet the regulatory requirements for a cleanup action. Monitoring requirements are expected to be longer term than for other alternatives because risks will not be reduced with this alternative. There are no concerns with site access because no construction is associated with this alternative. This alternative does not impact existing site operations.

Cost

- Cost of construction
- Long-term monitoring, and operations and maintenance costs
- Cost to maintain
 institutional controls
- Agency oversight costs

This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included and are expected to be consistent for all proposed alternatives. The cost associated with an MNA alternative is expected to be low.



Table 7. Selected Alternatives Evaluation

Alternative B	 Protectiveness Degree to which existing risks are reduced Time required to reduce the risk and attain cleanup standards On-site and off-site risks resulting from implementing the alternative Improvement of the overall environmental quality 	 Permanence Degree of permanent reduction of contaminant toxicity, mobility, and volume Adequacy of destruction of hazardous substances Reduction or elimination of substance release, and source of release Degree of irreversibility of waste treatment processes Characteristics and quantity of generated treatment residuals 	 Long Term Effectiveness Degree of certainty that the alternative will be successful Reliability while contaminants remain on-site greater than cleanup levels Magnitude of residual risk Effectiveness of controls implemented to manage residual risk 	 Management of Short Term Risks Risk to human health and the environment associated with the alternative during construction and implementation The effectiveness of measures taken manage short-term risks 	 Technical and Administrative Implementability Technical possibility Availability of off-site facilities, services, and materials Administrative and regulatory requirements Schedule, size, and complexity of construction Monitoring requirements Site access for construction, operations, and monitoring Integration with existing site operations or other current and potential future remedial action
Excavation and Offsite Disposal of	This alternative provides a high	This alternative provides a high	This alternative provides high	This alternative will generate a	This alternative is simple to
Contaminated Soil	degree of reduction of existing risk through removal of contaminant mass in soil. The time required to reduce risk and achieve cleanup is the same as the time it takes to dig and backfill the excavation, which we estimate will take one to three weeks to complete. It is anticipated that the majority of contaminants are sorbed to the soil. Extracted soil will be considered hazardous and will be disposed of at a licensed off- site facility. This alternative provides a high degree of improvement in overall environmental quality through mass reduction in soil and some groundwater.	degree of permanent reduction of contaminant toxicity, mobility, and volume reduction. Removal of contaminated soils if done diligently effectively removes the contaminant from the system. However, the process does not destroy the contaminant and generated waste, including stockpiled soil, will require management during implementation over the short term. Contaminated soils will be disposed of at a licensed facility.	degree of certainty of success because has been implemented successfully at similar sites. Excavation and offsite disposal is very reliable if the extent of the contaminated soil is well known. Monitoring can be conducted in the long term to confirm performance. The magnitude of residual risk associated with this alternative is small because the contaminant is removed from the system.	potential direct contact risks to workers during excavation, stockpiling, transport, and disposal. Stockpiled contaminated soil should be protected from precipitation to reduce the chance of the contaminants being reintroduced to the excavation. Site activities will require appropriate PPE, BMPs, and appropriate training requirements for management of risk. These controls are highly effective and anticipated to adequately manage short-term risk.	implement assuming the extent of the contaminated soils has been determined. All necessary off-site facilities, materials, and services are available within the region. This alternative meets administrative and regulatory requirements. This alternative is anticipated to require 1-3 weeks to complete the excavation. Short term monitoring will include sampling of sidewall soil and separation of contaminated from clean excavation soils through sheen tests, PID tests, and laboratory analyses. Long term groundwater monitoring will be in place after construction. Site access for construction is moderately complex because of active site uses, and will halt site operations in the excavation area.

Cost

- Cost of construction
- Long-term monitoring, and operations and maintenance costs
- Cost to maintain
 institutional controls
- Agency oversight costs

This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included, and are expected to be consistent for all proposed alternatives. The overall cost associated with this alternative is expected to be low as the overall time span for remediation is relatively short and long term monitoring will be performed in stretched intervals.



Table 7. Selected Alternatives Evaluation

Alternative C Enhanced Aerobic Bioremediation	 Protectiveness Degree to which existing risks are reduced Time required to reduce the risk and attain cleanup standards On-site and off-site risks resulting from implementing the alternative Improvement of the overall environmental quality 	 Permanence Degree of permanent reduction of contaminant toxicity, mobility, and volume Adequacy of destruction of hazardous substances Reduction or elimination of substance release, and source of release Degree of irreversibility of waste treatment processes Characteristics and quantity of generated treatment residuals 	 Long Term Effectiveness Degree of certainty that the alternative will be successful Reliability while contaminants remain on-site greater than cleanup levels Magnitude of residual risk Effectiveness of controls implemented to manage residual risk 	 Management of Short Term Risks Risk to human health and the environment associated with the alternative during construction and implementation The effectiveness of measures taken manage short-term risks 	 Technical and Administrative Implementability Technical possibility Availability of off-site facilities, services, and materials Administrative and regulatory requirements Schedule, size, and complexity of construction Monitoring requirements Site access for construction, operations, and monitoring Integration with existing site operations or other current and potential future remedial action
	This alternative provides a high degree of reduction of existing risk through the destruction of contaminant mass in saturated soil given accurate application and receptive microbes. The time required to reduce risk and achieve cleanup is anticipated to take one year or less. ORCs by their nature as oxidizers can damage the respiratory system of humans who inhale them. A health and safety plan will have to be implemented. This alternative provides a high degree of improvement in overall environmental quality through mass reduction in saturated soil.	This alternative provides a high degree of permanent reduction of contaminant toxicity, mobility, and volume reduction. If applied accurately within saturated soil, ORCs can promote the destruction of contaminants via biodegradation.	This alternative provides a high degree of certainty when accurately applied. We anticipate that the method of application will entail an excavation to the bottom of the smear zone, thus combining the effects of Alternatives B and C. Monitoring can be conducted in the long term to confirm performance. The magnitude of residual risk associated with this alternative is small because the contaminant is removed from the system.	This alternative will generate potential direct contact risk to workers during implementation. Site activities will require appropriate PPE, BMPs, and appropriate training requirements for management of risk. These controls are highly effective and anticipated to adequately manage short-term risk.	This alternative is simple to implement assuming the extent of the contamination has been determined. All necessary off-site facilities, materials, and services are available within the region. This alternative meets administrative and regulatory requirements. Long term monitoring should not influence site operations but will require coordination with the client.

Cost

- Cost of construction
- Long-term monitoring, and operations and maintenance costs
- Cost to maintain
 institutional controls
- Agency oversight costs

This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included, and are expected to be consistent for all proposed alternatives. The overall cost associated with this alternative is expected to be low as the overall time span for remediation is relatively short and long term monitoring will be performed in stretched intervals.



3.5 Recommended Remedial Alternative

Estimated costs for the primary alternatives are summarized below:

Primary Alternative	Estimated Cost
Alternative A. Monitored Natural Attenuation	\$42,000
Alternatives B and C. Excavation and offsite disposal	
supplemented with enhanced aerobic bioremediation and	\$254,000
groundwater monitoring	

Alternative A is not likely to meet the remedial action objectives and has been retained as a baseline for comparison. A combination of Alternatives B and C, excavation and offsite disposal and enhanced bioremediation with post-remediation groundwater monitoring, is the recommended alternative. This approach optimizes achieving the RAOs and compliance with MTCA at the best overall cost. Key elements of the recommended alternative are described below.

- 1. Enroll the site in the Washington State Department of Ecology's Voluntary Cleanup Program and arrange for subcontractors. Prepare a Remedial Action Work Plan and a Site-Specific Health and Safety Plan.
- 2. Excavate and dispose of contaminated soil at a facility licensed to accept the material. Collect and analyze soil samples during and upon completion of the remedial activities to distinguish clean and contaminated soil and to document the soil cleanup.
- 3. Dose the base of the excavation with an oxygen-releasing compound in an effort to enhance the natural bioremediation of residual TPH in soil and groundwater.
- 4. Backfill, compact, and resurface the excavation.
- 5. We anticipate that one to two existing groundwater monitoring wells may need to be replaced following the completion of the remedial excavation.
- 6. Complete subsequent groundwater sampling and analysis to evaluate the effectiveness of the remedial actions in regard to dissolved phase hydrocarbons in groundwater.

4.0 **REMEDIAL ACTION**

BMC retained Clearcreek Contractors of Marysville, Washington to complete the remedial excavation. Clearcreek mobilized a Hitachi 200 LC excavator to the Site, and the work was initiated on July 20, 2015. The asphalt over the estimated extent of the Site, as determined during the RI, was removed and disposed. Clean overburden fill soils were removed to a depth of about two feet, stockpiled, and covered. Four discreet samples of stockpiled soil were collected and analyzed for gasoline and BTEX, which were not detected above laboratory reporting limits (Table 9). The clean overburden soil was returned to the excavation following the removal of impacted soil.

Excavated soil was field screened using the sheen test, a photo-ionization detector, and/or odor. Gasoline impacted soils were identified at depths ranging from about 2 feet to 6 feet below grade, except for on the south part of the excavation where three likely historical UST cavities were found. The cavities were identified by the presence of rectangular areas that contained several feet of pea gravel. Gasoline impacted soil in these areas extended to depths ranging from about 8 to 11 feet.

A 24-inch PVC storm water pipe was encountered along the west side of the remedial excavation on July 21, 2015. Although the pipe was not damaged by the excavator, water leaked into the remedial excavation from what appeared to be a faulty pipe join (see photos in Appendix F). We determined that the storm



water pipe discharged to the retention pond that is located immediately north of the northwest part of the Property (about 250 feet north of the Site).

A series of soil berms were constructed to block the water, and the removal of impacted soil continued through July 23, 2015. At that time work was stopped for a period of about 6 weeks to make arrangements to pump, treat, and dispose of the excavation pit water and to lower the water elevation in the north adjoining storm water retention pond such that the storm water would stop draining into the remedial excavation.

The remedial excavation work re-initiated and completed on September 10 through September 15, 2015. Dewatering effluent was pumped into a series of four 17,640-gallon Baker Tanks. The effluent was treated by being pumped through a sand filter (to reduce turbidity) and an activated carbon filter (to adsorb TPH and BTEX). The treated dewatering effluent was disposed into the King County sanitary sewer system under a King County permit acquired by BMC. A copy of the permit is included in Appendix G.

Pre-treatment dewatering effluent samples were collected on July 22 and July 24, 2015. Post-treatment dewatering effluent samples were collected on August 5, 2015 and September 8, 2015. Gasoline and BTEX were not detected in the post-treatment samples. Dewatering effluent analytical results are presented in Table 8. Laboratory reports are presented in Appendix H.

A site plan depicting the location of soil samples collected during the remedial excavation is presented in Figure 7 (Appendix H). A total of 1,395.87 tons of gasoline-contaminated and suspect gasoline-contaminated soil was removed and trucked to the Regional Disposal Company transfer station in Seattle. Copies of the scale tickets are included in Appendix J. Twenty-four soil samples were collected to monitor the effectiveness of the remedial excavation (Table 9). TPH and BTEX were not detected above laboratory reporting limits, or were detected in concentrations below the Method A cleanup level in all residual soil samples except one. This sample (1099-21A), collected at a depth of about 6 feet on the north part of the west sidewall (Figure 7, Appendix H), contained gasoline and benzene at reported concentrations of 120 mg/kg and 0.12 mg/kg.

Upon completion of the over-excavation activities, eleven hundred pounds of the Regenesis product ORC Advanced pellets were placed at the base of the excavation and kneaded into the smear zone using an excavator. The purpose of the ORC Advanced pellets was to promote the biodegradation of any remaining TPH. The remedial excavation was backfilled with quarry spalls (at the base of the excavation, beneath the water table), clean overburden previously stockpiled on the Property, and clean imported pit run fill soil and subsequently covered with asphalt pavement.

ZGA returned to the Property on February 4, 2016 and advanced four hand auger explorations (HA-1 to HA-4) in the East Lake Sammamish Parkway Southeast right-of-way, immediately west of the Site (see Figure 7, Appendix H). A soil sample was collected from each exploration at the top of the water table (about 3 feet bgs) and analyzed for gasoline and BTEX. Gasoline and BTEX were not detected above laboratory reporting limits in any of the samples.



Table 8. Dewatering Effluent Analyses

SAMPLE #	DATE	LOCATION	TOTAL PETROLEUM HYDROCARBONS (ug/L)			VOLATILE ORGANIC COMPOUNDS (ug/L)				FATE
			GRO	DRO	ORO	В	Т	E	X	
1099-BT1	7-22-15	Baker Tank	420	790	470	ND<1.0	2.8	11	20	Subsequently
1099-BT2	7-24-15	(Pre-Treatment)	1,100	3,100	490	ND<1.0	1.1	11	16	treated
TW-1	8-5-15	Poly Tank	ND<50	ND<130	ND<258	ND<1.0	ND<1.0	ND<1.0	ND<3.0	Transmitted
TW-2	9-8-15	(Post-Treatment)	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	ND<3.0	to sanitary sewer

ug/L, micrograms per liter (parts-per-billion); GRO, gasoline-range organics; DRO, diesel-range organics; ORO, oil-range organics; B, benzene; T, toluene; E, ethylbenzene; X, total xylenes; NA, not analyzed.



Table 9. Remedial Excavation Analytical Results

			PTH LOCATION	TOTAL PETROLEUM HYDROCARBONS			VOLATILE ORGANIC COMPOUNDS					
SAMPLE #	SAMPLE # DATE			(mg/kg)		(mg/kg)				Pb	FATE	
				GRO	DRO	ORO	В	Т	E	X		
SP-1				ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
SP-2	7-20-15	NA	Steeliniled Overburden Seil	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		Clean fill soil returned to
SP-3		INA	Stockplied Overbuilden Soli	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		excavation
SP-4	7-21-15			ND<3.0	ND<25	58	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-1	7-20-15	5	Floor West	310	ND<25	ND<50	ND<0.30	1.2	1.6	ND<2.0	6.0	Removed
1099-2		6	Floor North	5.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-3		6	Sidewall North	4.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-4		6	Floor Central	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-5	7 21 15	6	Floor Southwest	6.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-6	/-21-13	6	Floor Northeast	4.8	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		Residual
1099-7		8.25	Floor Beneath UST Cavity #1	7.1	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-8		8	Floor Beneath UST Cavity #2	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-9		5.75	Sidewall Southeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-10		6	Sidewall East	5.6	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-11		6	Sidewall Northeast	7.8	ND<25	ND<50	0.031	ND<0.05	0.18	ND<0.2		Removed
1099-12	7 22 15	6	Sidewall Northwest	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-13	7-22-13	6	Sidewall Northeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-14		6	Floor Northeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-15		6	Sidewall Northeast	6.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-16	7-24-15	11	Floor Beneath UST Cavity #3	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-17	7-24-15	11	Floor Beneath UST Cavity #3	12	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-18		8		ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	5	
1099-19	9-10-15	8	Sidewall South	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	2.3	
1099-20	9-10-15	8		ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	3.9	Residual
1099-21		6		ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	2.9	
1099-21A		6	Sidewall West	120	ND<25	ND<50	0.12	0.29	1.0	0.69	3.4	
1099-22	9-15-15	6		11	ND<25	ND<50	ND<0.03	ND<0.05	0.10	ND<0.2	3.0	
1099-23		6		30	ND<25	ND<50	ND<0.03	ND<0.05	0.076	ND<0.20	3.5	
HA-1		3		ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
HA-2	2 1 16	3	Immediately West of the Remedial Excavation	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
HA-3	2-4-10	3	in the City of Issaquah Right-Of-Way	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
HA-4		3		ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
Method A Clean	up Level			30/100*	2,000	2,000	0.03	7	6	9	250	

mg/Kg: milligrams per kilogram (parts-per-million); <: Not detected above indicated laboratory minimum reporting limit. Shaded values exceed MTCA Method A cleanup levels. B, benzene; T, toluene; E, ethylbenzene; X, total xylenes. *The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.



5.0 CONFIRMATION GROUNDWATER SAMPLING

After the completion of the remedial actions described in Section 4, quarterly groundwater samples were collected from five wells in the vicinity of the remedial excavation for a period of one year to evaluate the effectiveness of the remedial efforts.

5.1 Monitoring Well Installations

In 2013, as a part of the Phase II ESA, ZGA observed the installation of four groundwater monitoring wells in the vicinity of the TPH and BTEX impacted soil (MW-1 to MW-4). MW-1 and MW-4 were decommissioned during the remedial excavation described in Section 4. In November of 2015, ZGA observed the installation of three groundwater monitoring wells within the footprint of the remedial excavation (MW-1A, MW-4A, and MW-5). Well installation was performed by Environmental Drilling Inc. who operated a truck-mounted hollow stem auger drill rig. MW-1A and MW-4A were located near the former locations of the decommissioned wells for which they were named. MW-5 was located near the center of the remedial excavation footprint. MW-1A, MW-4A, and MW-5 were installed to a depth of approximately 10 feet bgs. These 2015 wells were developed with 2-inch PVC casings screened from approximately 4 to 10 feet bgs with a sand pack from approximately 3 to 10 feet bgs. The well heads were set into approximately 1½ feet of concrete at the surface with bentonite between the concrete and the sand pack. Groundwater was observed at a depth of approximately 2.5 to 3 feet bgs at the time of drilling.

A field log of each exploration was maintained, including the thickness and depth of each soil unit encountered and the depth to the uppermost water table recorded. Soil samples were observed to document soil lithology, color, and moisture content. Soils were recorded in general accordance with American Society for Testing and Materials (ASTM) Practice Designation D-2488, *Standard Practice for Description of Soils (Visual-Manual Procedure)*. Exploration logs are included in Appendix J of this report. Approximate location of monitoring wells are presented in Appendix J.

5.2 Sampling Methodology

Groundwater was sampled quarterly over a one-year period since the completion of the remedial excavation. Wells sampled post-remediation include MW-1A, MW-2, MW-3, MW-4A, and MW-5.

Prior to sampling, the depth to groundwater in each well was measured with an electronic water level indicator. Top of casing elevations were surveyed by PLS, Inc. Elevations were recorded in feet relative to an arbitrary datum of 100 feet defined by a survey pin located to the northwest of the remedial excavation. Depth to groundwater was measured from the north rim of all PVC well casings. Depth to groundwater and corresponding groundwater elevations are presented in Table 10. Groundwater contour maps are presented in Appendix K. Groundwater elevations indicate a generally westward direction of groundwater flow, except for the final event in September of 2016, where groundwater mounding appeared to occur near MW-5.

Groundwater was collected with a peristaltic pump utilizing low flow techniques with a discharge rate of approximately 100 ml/minute. Dedicated polyethylene and silicon tubing were utilized for each well. The intake of the polyethylene tubing was set approximately one foot below the top of the screened interval in each well, at a depth of approximately four feet. Discharge from the peristaltic pump was directed through a Horiba U-50 multi-parameter water quality meter with a flow-through cell. Each well was developed until consistent values (Less than 10% variance) were obtained for pH, turbidity, temperature, conductivity, and dissolved oxygen content. After these conditions were met, groundwater was collected in laboratory supplied glassware.



	Date of	Top of Casing	Depth to Water	Groundwater
Monitoring Well	Measurement	Elevation (ft.)	(ft. bgs)	Elevation (ft. MSL)
	12/10/2015	_	1.00	97.82
	3/16/2016		1.26	97.56
	6/10/2016		1.51	97.31
	9/07/2016		2.50	96.32
	5/24/2013	99.45	1.84	97.61
	12/10/2015		1.18	97.83
MW-2	3/16/2016	00.01	1.43	97.58
	6/10/2016	99.01	2.69	96.32
	9/07/16		3.13	95.88
	5/24/2013	99.73	2.59	97.14
	12/10/2015		2.05	97.19
MW-3	3/16/2016	00.24	2.22	97.02
	6/10/2016	99.24	2.50	96.74
	9/07/2016		2.88	96.36
	12/10/2015		1.68	97.72
	3/16/2016	00.40	1.89	97.51
1VI VV-4A	6/10/2016	99.40	2.00	97.40
	9/07/2016		2.69	96.71
	12/10/2015		1.40	97.55
	3/16/2016		1.50	97.45
C-VVIVI	6/10/2016	98.95	1.78	97.40
	9/07/2016		2.18	96.77

Table 10. Post-Remediation Groundwater Elevations

ft. bgs, Feet below ground surface.

Each sample container was labeled with our company name, the project number, the date and time of collection, and the monitoring well number. Sample containers were placed in a chilled cooler immediately after sampling, and subsequently transported to the ALS Environmental laboratory in Everett by ZGA personnel under chain-of-custody procedures.

5.3 Groundwater Quality Results

A total of 20 groundwater samples were submitted for chemical analysis. All samples were analyzed by ALS Laboratory Group, a Washington State accredited laboratory. Each groundwater sample was analyzed for gasoline using Northwest Method NWTPH-GX and for BTEX using EPA Method 8021. Gasoline and BTEX were not detected in any of the samples. Analytical results are summarized in Table 11. The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix L. Gasoline and BTEX were not reported above laboratory reporting limits in any of the samples.



		Gasoline-	BTEX (ug/L)						
Monitoring Well	Date of Sampling	Range TPH (ug/L)	Benzene	Toluene	Ethylbenzene	Total Xylenes			
	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MW-1A	6/10/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MW-2	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MW-3	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MW-4A	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MW-5	6/10/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0			
MTCA Method A Cleanup Level:		100	5 ug/L	1,000 ug/L	700 ug/L	1,000 ug/L			

Table 11. Post-Remediation Groundwater Quality Results

ug/L, micrograms per liter (parts-per-billion)

6.0 SUMMARY AND CONCLUSIONS

ZGA has completed a RI/FS and independent remedial action at the BMC facility in Issaquah, King County, Washington. Based on the results of the RI/FS the approximate extent of soil and groundwater contaminated with gasoline, benzene, ethylbenzene, and xylenes was defined and excavation and offsite disposal of impacted soil supplemented with post-excavation enhanced aerobic bioremediation was selected as the most effective remedial action alternative.

A total of 1,395.87 tons of gasoline-contaminated and suspect gasoline-contaminated soil was removed, and 26 residual soil samples were collected and analyzed for gasoline and BTEX. Gasoline and BTEX were not detected, or were detected in concentrations below MTCA Method A cleanup levels in 25 samples. One sample collected at a depth of about 6 feet on the west sidewall of the excavation contained 120 mg/kg gasoline and 0.12 mg/kg benzene, which slightly exceed the Method A cleanup levels. However, gasoline and BTEX were not detected in four samples collected in the immediately west adjoining Lake Sammamish Parkway Southeast right-of-way.


Upon completion of the over-excavation activities, eleven hundred pounds of the Regenesis product ORC Advanced pellets were placed at the base of the excavation and kneaded into the smear zone using an excavator.

Five groundwater monitoring wells installed in and immediately adjoining the Site were sampled for gasoline and BTEX quarterly for a period of one year. Gasoline and BTEX were not detected during any of the sampling events.

Based on these results, we request a No Further Action Determination from Ecology.

7.0 CLOSURE

ZGA's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. ZGA makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that ZGA does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. This report is intended to reduce, but not eliminate, uncertainty regarding the extent of contaminated soil and groundwater at the Property. Our findings are based upon information derived from soil and groundwater sampling at the indicated locations; such information is subject to change over time. Subsurface conditions may vary from those described herein during future investigations. If different conditions from those described herein are discovered, ZGA must be notified so that we can review these conditions and modify our conclusions and recommendations where necessary. This report has been prepared for the exclusive use of BMC West Corporation and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of BMC West Corporation and ZGA.

7.0 REFERERCES

Booth, D.B and Minard, J.P., 1992 Geologic map of the Issaquah 7.5' Quadrangle, King County, Washington U.S. Geological Survey Miscellaneous Field Studies Map 2206.

Washington State Department of Ecology, 2009, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action.

Appendix A – Previous Reports



April 6, 1998

13945

Mr. Joe Hickey Washington Department of Ecology Northwest Regional Office 3190 160th Avenue Southeast Bellevue, WA 98008

Re: Environmental Investigation Results 5210 East Lake Sammamish Parkway Southeast, Issaquah, Washington

Dear Mr. Hickey:

On behalf of BMC West Corporation (BMC West), TRC Environmental Corporation (TRC) conducted an environmental investigation at the BMC West facility at 5210 East Lake Sammamish Parkway Southeast, Issaquah, Washington (Figure 1). The objective of the investigation was to determine the nature and extent of petroleum contamination on the west side of the facility from an unknown source. During construction of a storm water catchment basin, petroleum contamination was observed in the subsurface soil and groundwater. The contamination may be from three gasoline underground storage tanks (USTs), which were removed in 1989, but initial testing of the tank area showed minimal contamination. BMC West requested TRC to conduct an investigation of the area to determine the source and extent of the petroleum contamination.

The TRC investigation was conducted in two phases. The first phase consisted of a subsurface investigation conducted on June 25, 1996. Results of the investigation were submitted to the Washington Department of Ecology in a letter report dated July 8, 1996. This investigation was designed with three goals; 1) to determine if soil and groundwater petroleum contamination was present, 2) to characterize potential contamination near the storm water basin, and 3) to assess if the petroleum contamination was flowing onto the site from adjacent properties.

The second phase was conducted on December 4, 1997 and consisted of a subsurface investigation to; 1) further evaluate the on-site extent of soil and groundwater petroleum contamination and 2) monitor potential changes in petroleum concentrations.

SITE DESCRIPTION

The BMC West facility is currently operated as a retail lumber facility. The site occupies approximately 16 acres, the majority which consists of paved parking lots, paved yard areas, lumber storage, millwork, and office buildings. Asphalt paving or concrete aprons cover the entire yard area. There is one large structure on the site which houses the offices, store, and millworks located on the east side of the site. There are also several storage sheds and a maintenance shop located at the facility.



The St. Regis Corporation constructed the lumber facility in 1966. Henry Bacon Building Materials purchased the facility in 1986 and constructed improvements at the facility. BMC West has been leasing and operating the facility since 1994.

Site Location

The BMC facility is located in the city of Issaquah, King County, Washington, approximately 15 miles east of Seattle, Washington.

Adjacent Properties

The immediate area consists of mixed industrial and commercial uses. Albertson's Grocery Store and McDonald's restaurant are located adjacent to the south side of the property. Immediately north of the subject site are private residences, a church, and a bible institute. Immediately east of the subject property is a farmhouse. The facility abuts the base of the steep hill to the east. Residential developments are present upslope. West of the subject site is East Lake Sammamish Parkway Southeast, Burlington Northern Railroad track, and then some light industrial development. Lake Sammamish State Park is located approximately ¼ mile west of the site.

Hydrology

The facility is 15 feet above mean sea level. Surface water drainage is to the west. Lake Sammamish is located approximately ½ mile northwest of the site. The Issaquah River, which drains into Lake Sammamish, flows from the southeast to the northwest and is located about 1/3-mile southwest of the subject site.

Based on the local topography and location of surface water bodies, the anticipated direction of groundwater flow is to the west-northwest. The depth to groundwater at the site ranges from 4.5 to 6 feet below ground surface (bgs). Subsurface soil types at the site range from clayey sand to sandy clay.

To evaluate if existing water supply wells are located down gradient of the site, TRC contacted the Washington Department of Ecology to obtain a list of permitted water wells. One well was registered in the northwest ¼ of section 21, Township 24 north, range 6 east, which is approximately 1,500 feet northwest of the site. The well is completed in bedrock at a depth of 200 feet. The well is completed with a 20-foot surface seal.

Based on the construction details of the well, it is not completed in the shallow surface aquifer, therefore, it would not be impacted by the site. Well construction records are included as Attachment 2.

DISCOVERY OF PETROLEUM CONTAMINATION

The area of concern is at the storage yard bordering East Lake Sammamish Parkway Southeast. The area is paved with asphalt and surface water runoff is to the west toward a drainage ditch that borders the west side of the site. In this area, BMC West installed a storm

water catchment basin in 1996. During construction of the basin, petroleum contamination was observed in the subsurface soil and groundwater.

POTENTIAL SOURCE OF PETROLEUM CONTAMINATION

A site plan previously provided to TRC by BMC West indicated that a former gasoline pump station was located approximately where BMC West installed the storm water catchment basin. In addition, a Phase I Environmental Site Assessment performed for the property by TRC in September 1994 indicated that three USTs and associated dispensers and piping were removed from this area. These tanks were removed by Chempro Environmental Services (Chempro) in January 1989. A soil sample was collected by Chempro from the excavated soil while removing the tanks. The results were below state cleanup standards (Table 1). Chempro received a closure permit (# M-F88-0721) for removing the USTs from King County.

Table 1
Soil Sampled During Tank Removal
by Chempro Environmental Services
January 1989

Constituent	Concentration (mg/kg)	State Standard (mg/kg)
Total Petroleum Hydrocarbons	31	100
Benzene	< 0.05	0.5
Toluene	22.0	40
Ethylbenzene	< 0.05	20
Xylenes	< 0.05	20

INITIAL TRC SITE INVESTIGATION

At the request of BMC West, TRC conducted a subsurface investigation in response to the petroleum contamination observed while excavating the storm water basin. The investigation was conducted on June 25, 1996 and consisted of soil and groundwater sampling. The investigation was designed with three goals; 1) to determine if soil and groundwater petroleum contamination was present, 2) to characterize potential contamination near the storm water basin, and 3) to assess if the petroleum contamination was flowing onto the site from adjacent properties.

TRC focused the subsurface investigation in the area of the catchment basin and the approximate location of the former USTs. Ten boreholes were drilled using a hollow-stem auger drilling rig operated by Environmental West Exploration. Split spoon soil samples were collected at five-foot depth intervals, logged and then composited for laboratory analysis. Groundwater samples were collected from four of the boreholes. Groundwater samples were collected from each borehole with the augers in place. No monitoring wells were constructed. Hnu Photoionization measurements were collected for each soil sample. The Hnu detects volatile organic vapors and is useful in determining the potential and scale of petroleum

contamination in a sample. Table 2 summarizes the Hnu results for the collected samples. Values greater than zero where encountered in six boreholes 1, 2, 3, 5, 6, and 9.

The highest concentrations were detected in boreholes 1, 5, 6, and 9. These four boreholes are located near the former UST and pumping station. Generally, concentrations were the highest in the 5 to 6.5-foot depth interval and concentrations decreased with depth.

Samples with the highest Hnu readings were submitted. Three groundwater and four soil samples were submitted to Analytica, Inc. and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), by EPA Method 8020 and total petroleum hydrocarbons (TPH) using EPA Method 418.1. Water and soil results are summarized in Tables 3 and 4, respectively. Also included in the tables are the state's cleanup criteria for each of the constituents. Benzene and TPH groundwater concentrations are graphically presented in Figure 2. Laboratory data sheets are included in Attachment 1.

Table 3 shows that BH-5, located near the removed USTs, exceeded the groundwater standards for benzene, xylenes, and TPH. BH-1, located near the storm water catchment basin, exceeded the standard for TPH. All other constituent concentrations in groundwater were below the state standards. Table 4 shows that none of the soil standards were exceeded.

Borehole Number	Depth Interval (ft)	Reading (ppm)
BH-1	5 - 6.5	20
BH-1	10 - 11.5	3.5
BH-2	5 - 6.5	0.5
BH-2	10 - 11.5	0.5
BH3	5 - 6.5	0.5
BH-3	10 - 11.5	0
BH-3	15 - 16.5	1.0
BH-4	5 - 6.5	0
BH-4	10 - 11.5	0
BH-5	56.5	9
BH-5	10 - 11.5	4
BH-5	15 - 16.5	9
BH-6	5 - 6.5	9
BH-6	10 - 11.5	12
BH-7	5 - 6.5	0
BH-7	10 - 11.5	0
BH-8	5 - 6.5	0
BH-8	10 - 11.5	0
BH-9	5 - 6.5	12
BH-9	10 - 11.5	3
BH-10	5 - 6.5	0
BH-10	10 - 11.5	0

Table 2Hnu Photoionization MeasurementsInitial TRC Site Investigation



Table 3 Groundwater Analytical Results (units: ug/l) Initial TRC Site Investigation

Constituent	State Standard	BH-1	BH-3	BH-5	-
Benzene	5	3.0	ND (1)	7.3	
Toluene	40	2.3	ND (1)	1.5	
Ethylbenzene	30	2.9	ND (1)	10	
Total Xylenes	20	3.8	6.7	110	
ТРН	1000	2100	280	3000	

TPH = total petroleum hydrocarbons

 $ND_{(1)}$ = not detected above method detection limit of 1 ug/l.

	Table 4		
Soil Analytical	Results	(units:	mg/kg)
Initial TRC	Site Invo	estigati	ion

Constituent	State Standard	BH-1	BH-2	BH-5	BH-6
Benzene	0.5	0.010	ND	0.076	0.028
Toluene	40	0.004	ND	0.022	0.0022
Ethylbenzene	20	0.0069	ND	0.100	0.008
Total Xylenes	20	0.0065	ND	0.790	0.031
ТРН	100/200 (1)	99	31	ND	44

(1) Two standards depending on source, gasoline/diesel.

TPH = total petroleum hydrocarbons.

ND = not detected above the method detection limit.

Based on the results, TRC concluded that groundwater at the site had been impacted by petroleum hydrocarbons but the concentrations were relatively low and the extent of contamination is generally limited to the area near the removed USTs. The results did not indicate a potential off-site source of the petroleum contamination.

Results of the investigation were submitted to Mr. Joe Hickey of the Washington Department of Ecology, in a letter-report dated July 8, 1996. TRC contacted Mr. Hickey in October 1997 to

discuss the status of the site and to determine what, if anything, needed to be done at the site. Mr. Hickey said he had no record of the site or the report in his database.

SECOND INVESTIGATION

An second subsurface investigation was performed on December 4, 1997 by Geo-Tech Exploration Company of Portland, Oregon at the direction of TRC. The objective of the investigation was to; 1) further evaluate the on-site extent of soil and groundwater petroleum contamination and 2) monitor potential changes in petroleum concentrations.

The investigation consisted of using a Geoprobe drill rig to obtain soil and groundwater samples. The drill rig uses direct push technology to obtain soil and groundwater samples. With this technology, a steel drive probe is mechanically driven into the ground using a hydraulic, truck-mounted drilling rig. A soil sample is obtained using a sampler attached to the end of the probe. After the sample is obtained, the probe is extracted from the ground and the sample retrieved. To obtain a groundwater sample, the probe is driven to the desired depth using a dedicated drive tip. A 4-foot long, steel screened section is then installed inside of the probe rod and the outer rod extracted. Small diameter tubing is lowered inside of the screen and a water sample obtained using an inertia pump.

Six boreholes, labeled A through F and shown on Figure 3, were drilled to obtain soil and groundwater samples. Borehole locations were selected based on the location of the removed USTs and the anticipated direction of groundwater flow (predicted to be westerly). Borehole BH-A is located near the original location of the USTs and the other boreholes are located hydraulically down gradient and cross gradient to evaluate the extent of petroleum contamination. Results of groundwater sampling indicated the depth to groundwater ranged from 4.5 to 6 feet bgs.

Soil samples were obtained approximately every 4 feet from the boreholes. Discrete soil samples were obtained generally from the 2-4 foot and 6-8 foot depth zones. The total depth of the boreholes was approximately 8 feet. Soil types ranged from clayey sand to sandy clay. Soil samples were split with a portion of each sample stored on ice and the remainder put in a plastic bag to perform a headspace analysis. Headspace analyses were performed using an Hnu photoionization detector to estimate volatile petroleum concentrations in the samples. The bag samples were left in the sun for approximately 20 minutes to promote volatilization of the hydrocarbons and then the headspace measured with the Hnu. Concentrations ranged from 0.2 ppm to 340 ppm as shown in Table 5. Laboratory data sheets are included in Attachment 1. The highest concentrations were detected in boreholes BH-A (340 ppm), BH-B (260 ppm), BH-E (100 ppm), and BH-F (30 ppm) all from the 2 to 4 foot depth range.

The four soil samples with the highest headspace concentrations were submitted to Analytica, Inc. in Broomfield, Colorado for laboratory analysis. The samples were analyzed for BTEX by EPA method 8021B and Volatile Petroleum Hydrocarbons (VPH) by EPA Method 8015B/API. The laboratory results and state cleanup standards are summarized in Table 6 and VPH concentrations are graphically presented on Figure 3. Laboratory data sheets are included in Attachment 1. Soil constituent concentrations in boreholes BH-A, BH-B, and BH-E exceeded the state standards. Boreholes BH-A and BH-B generally had the highest concentrations. BH-A is near the previous UST location and BH-B is located to the northwest (down gradient).



Groundwater samples were obtained from all six boreholes and submitted for laboratory analysis of BTEX and VPH. Groundwater concentrations and state standards are listed in Table 7 and benzene concentrations are graphically presented in Figure 4. Groundwater petroleum concentrations exceeded the state standards in boreholes BH-A, BH-B, BH-E, and BH-F. Borehole BH-B generally had the highest petroleum concentrations. The benzene concentration was 170 ug/l; the state standard is 5 ug/l. Borehole BH-A generally had the next highest concentrations.

Borehole	Depth Interval (ft)	Reading (ppm)
	2-4	340
BH-A	6-8	3.6
BH-B	2-4	260
	2-4	0.6
BH-C	6-8	0.5
BH-D	2-4	0.2
BH-E	2-4	100
BH-F	2-4	30

Table 5Hnu Photoionization MeasurementsSecond TRC Site Investigation

ppm = parts per million

Table 6Soil Analytical ResultsSecond TRC Site Investigation

	State Standard	BH-A, 2-4'	BH-B, 2-4'	BH-E, 2-4'	BH-F, 2-4'
Benzene	0.5	11	15	1.0	0.0047
Toluene	40	5.2	8.8	0.29	0.0019
Ethylbenzene	20	24	15	1.4	0.0035
Total Xylenes	20	280	110	4.1	0.0064
VPH	100	2200	2100	160	0.650

Units are mg/kg VPH = volatile petroleum hydrocarbons



Constituent	State Standard	BH-A	BH-B	BH-C	BH-D	BH-E	BH-F
Benzene	5	62	170	ND(1)	ND(1)	25	73
Toluene	40	96	110	ND(1)	1.0	4.6	6.0
Ethylbenzene	30	130	350	ND(1)	ND(1)	26	75
Total Xylenes	20	1300	1600	ND ₍₂₎	ND ₍₂₎	8.2	59
VPH	1000	5100	13000	ND ₍₁₀₀₎	ND ₍₁₀₀₎	870	1500

Table 7Groundwater Analytical ResultsSecond TRC Site Investigation

Units are ug/l

VPH = volatile petroleum hydrocarbons

 $ND_{(1)}$ = not detected above method detection limit shown in parentheses, e.g., 1 ug/l.

Discussion of Results

Concentrations detected during the second investigation (December 1997) were generally higher than concentrations detected during the June 1996 investigation. A possible explanation of why the current results show higher concentrations is likely due to different sampling methods. The 1996 investigation was intended to "screen" the site to evaluate if there was a potential release whereas the current investigation was intended more to quantify any petroleum contamination.

During the 1996 investigation, 2-foot long soil samples were obtained at 5 foot intervals (e.g., 5-7 feet bgs and 10-12 feet bgs) and composite samples submitted for analysis. During the recent investigation, discrete soil samples were collected from just above the water table and analyzed. This is where soil petroleum concentrations are expected to be the highest.

Groundwater samples during the 1996 investigation were obtained directly from inside hollowstem augers drilled to the total depth of the boreholes (up to 16.5 feet bgs). This may have averaged the groundwater petroleum concentrations across the borehole intervals. Groundwater samples obtained during the current investigation were obtained from a discrete interval near the top of the groundwater table.

Conclusions

Investigation results indicate petroleum concentrations in the soil and groundwater above state standards are present at the site. However, petroleum contamination appears to be limited to an area near the former tank locations and concentrations are relatively low. There are no down gradient residences or water supply wells that may be impacted. The nearest surface water is the Issaquah River located approximately 1/3 mile away, a relatively large distance. In addition, the clayey soil at the site is expected to restrict the migration of contaminants.

Recommendations

Based on the site conditions, TRC believes that no further action is warranted at the site based on the following:

- The source of the petroleum contamination (i.e., the USTs) has been removed,
- The extent of soil and groundwater contamination appears to be limited,
- Detected petroleum concentrations are relatively low,
- The on-site soil consists of low permeability sandy clay and clayey sand which is expected to restrict the migration of petroleum contamination, and
- There are no registered water well users downgradient of the site which might be impacted.

If you have any questions or need additional information, please do not hesitate to contact Greg Groene or me at (303) 792-5555.

Sincerely,

TRC ENVIRONMENTAL CORPORATION

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Matt Burrows, P.E. Principal Design Engineer

CC:	Ρ.	Street
	Ε.	Goebel

Attachments



ATTACHMENT 1

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TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 02A BH5	Collected: 06/25/96 Matrix: WATER					
Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>		Analyzed
BTEX Benzene Toluene Ethylbenzene Xylenes, Total	EPA 8020	7.3 1.5 10 110	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L		06/27/96 06/27/96 06/27/96 06/27/96
SURROGATES, % Recovery p-Bromofluorobenzene		96.7	Min:	80	Max:	120
Sample: 02C BH5	Col	lected: 06/25/9	96 Mat	crix: WA	TER	
<u>Test Description</u> Petroleum Hydrocarbons,T/R	Method EPA 418.1	<u>Result 0</u> 3.0	<u>Limit</u> 0.10	<u>Units</u> mg/L		<u>Analyzed</u> 06/28/96

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TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 03A BH1	C	ollected: 06/25/9	6 Mat	rix: WA	TER	
Test Description	Method	<u>Result</u> O	<u>Limit</u>	<u>Units</u>		<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		3.0	1.0	ug/L		06/28/96
Toluene		2.3	1.0	ug/L		06/28/96
Fthylbenzene		2.9	1.0	ug/L		06/28/96
Xvlenes. Total		3.8	2.0	ug/L		06/28/96
SURROGATES, & Recovery						
p-Bromofluorobenzene		100	Min:	80	Max:	120
Sample: O3C BH1	с	ollected: 06/25/9	6 Mat	rix: WA	TER	
Test Description	Method	<u>Result</u> <u>O</u>	<u>Limit</u> 0.10	<u>Units</u> mg/L		<u>Analvzed</u> 06/28/96
Petroleum Hydrocarbons, r/K	DIA 410.1	2.4	0.10			

TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 04A BH3		Collected: 06	/25/96 M	latrix: WJ	LTER
Test Description	Method	Result	<u>0 Limit</u>	Units	Analyzed
BTEX Benzene	EPA 8020	ND	1.0) ug/L	06/28/96
Toluene Ethylbenzene		ND ND	1.0) ug/L) ug/L	06/28/96
Xylenes, Total SURROGATES, % Recovery		6.7	2.0) ug/L	06/28/96
p-Bromofluorobenzene		100	Min:	: 80	Max: 120
Sample: 04C BH3		Collected: 06	5/25/96 N	Aatrix: W	ATER
Test Description Petroleum Hydrocarbons,T/R	Method EPA 418.1	Result 0.28	<u>0 Limit</u> 0.10	<u>- Units</u> D mg/L	<u>Analyzed</u> 06/28/96

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TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 05A BH1	Collected: 06/25/96 Matrix: SOIL						
Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>	<u>Analvzed</u>		
BTEX Benzene Toluene Ethylbenzene Xylenes, Total	LFA 6020	10 4.0 6.9 6.5	1.3 1.3 1.3 2.5	ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	06/27/96 06/27/96 06/27/96 06/27/96		
SURROGATES, & Recovery p-Bromofluorobenzene		92.1	Min:	70 Max:	130		
Percent Moisture	ASTM D2216	20.5	0.1	WIS	07/01/96		
Petroleum Hydrocarbons,T/R	EPA 418.1M	99	4.2	mg/Kg-DRY	06/2 8/96		

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TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 06A BH2	Collected: 06/25/96 Matrix: SOIL						
<u>Fest Description</u>	Method	<u>Result O</u>	<u>Limit</u>	<u>Units</u>	Analyzed		
BTEX Benzene	EPA 8020	ND ND	1.3 1.3	ug/Kg-DRY ug/Kg-DRY	06/27/96 06/27/96		
Ethylbenzene Xylenes, Total		ND ND	1.3 2.6	ug/Kg-DRY ug/Kg-DRY	06/27/96 06/27/96		
SURROGATES, & Recovery p-Bromofluorobenzene		100	Min:	70 Max:	130		
Percent Moisture	ASTM D2216	22.4	0.1	WT%	07/01/96		
Petroleum Hydrocarbons,T/R	EPA 418.1M	31	4.3	mg/Kg-DRY	06/28/96		

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TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 09A BH5	Coll	ected: 06/25/	'96 Mat	rix: SOIL	
Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>	Analyzed
BTEX Benzene Toluene Ethylbenzene	EPA 8020	76 D 22 D 100 D 790 D	6.2 6.2 6.2 12	ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	06/28/96 06/28/96 06/28/96 06/28/96
SURROGATES, % Recovery p-Bromofluorobenzene		89.5	Min:	70 Max:	130
Percent Moisture	ASTM D2216	19.5	0.1	WT%	07/01/96
Petroleum Hydrocarbons,T/R	EPA 418.1M	ND	4.1	mg/Kg-DRY	06/28/96

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TRC Environmental Corporation TEST RESULTS by SAMPLE

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Sample: 10A BH6	Collected: 06/25/96 Matrix: SOIL				
Test Description	Method	<u>Result O</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX Benzene Toluene Ethylbenzene Xylenes, Total	EPA 8020	28 2.2 8.0 31	1.3 1.3 1.3 2.6	ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	06/28/96 06/28/96 06/28/96 06/28/96
SURROGATES, % Recovery p-Bromofluorobenzene		92.3	Min:	70 Max:	130
Percent Moisture	ASTM D2216	22.2	0.1	WT%	07/01/96
Petroleum Hydrocarbons,T/R	EPA 418.1M	44	4.2	mg/Kg-DRY	06/28/96



RECEIVE DEC 23 1997, TRC 325 Interlocken Parkway Suite 200 Broomfield, CO 80021 (303) 469-8868 (800) 873-8707 FAX: (303) 469-5254

an Analytica Group company

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TRC Environmental Corporation 11 Inverness Drive East Englewood, CO 80112

Attn: Matt Burrows

Order #: 97-12-052 Date: 12/18/97 20:00 Work ID: BMC WEST - Issaquah, WA Date Received: 12/05/97 Date Completed: 12/18/97

SAMPLE IDENTIFICATION

Sample		Sample		
Number	Client Description	Number	<u>Client Descr</u>	iption
01	<u>BH-A</u>	07	BH-A,4'	
02	BH-B	08	BH-B,4'	
03	BH-C	09	BH-E,4'	•
04	BH-D	10	BH-F,4'	•
05	BH-E	11	TRIP BLANK	
06	BH-F			

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Claire Toon Project Manager

TRC Environmental Corporation CASE NARRATIVE

Samples were prepared and analyzed according to methods outlined in the following references:

 Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 3, January 1995.

Problems encountered with the analyses are discussed in the following narrative.

The BTEX analysis on soil samples BH-A,4' and BH-B,4' showed surrogate compound recovery that was above quality control limits. The recovery was biased high due to the presence of late eluting hydrocarbons which interferred with the quantitation of the surrogate. Secondary analyses confirmed this result.

The VPH analysis of soil sample BH-E,4' showed a similarly biased surrogate recovery for the reasons listed above. This result was also confirmed by secondary analysis.

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p-Bromofluorobenzene

TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 01A BH-A	Coll	lected: 12/04/9	7 Mat	rix: WAT	ER	
- Test Description	Method	<u>Result Q</u>	<u>Limit</u>	<u>Units</u>		Analyzed
Test Description	EPA 8021B					
		62 D	10	ug/L		12/15/97
Telucro		96 D	10	ug/L		12/15/97
Totuene		130 D	10	ug/L		12/15/97
Etnyidenzene Wulenen Total		1300 D	20	ug/L		12/15/97
Aylenes, Iolar						
- Dressfluerobongene		107	Min:	76	Max:	112
p-Bromoliuolobenzene	8015B/API					_
Volatile Pet Hydrocarbons	00100/100	5100 D	1000	ug/L		12/15/97
SURROGATES, & RECOVERY		93.3	Min:	70	Max:	130
p-Bromoriuorobenzene						
Sample: 02A BH-B	Col	lected: 12/04/9	7 Mai	trix: WA	TER	
			Limit	Units		Analyzed
Test Description	Method	<u>Result</u>	<u></u>	<u> </u>		
BTEX	EPA 8021B	170 D	10	11 9/L		12/15/97
Benzene		170 D	10	ug/L		12/15/97
Toluene			10	ug/L		12/15/97
Ethylbenzene		350 D	20	ug/1		12/15/97
Xylenes, Total		TEOO D	20	ug, 2		,, _
SURROGATES, % Recovery			Min.	76	Max:	112
p-Bromofluorobenzene	_ 4	96.7	MITH:	,0	110011	
Volatile Pet Hydrocarbons	8015B/API		1000	$n\sigma/T$		12/15/97
VPH		13000 D	1000	ug/ n		12/13/3/
SURROGATES, & Recovery			•• • •	70	Maxi	130
p-Bromofluorobenzene		117	MIU:	70	Max.	130
Sample. 032 BH-C	Co	llected: 12/04/	97 Ma	trix: WI	ATER	
Sampie. Usi 24 C						
Test Description	Method	<u>Result Q</u>	<u>Limit</u>	<u>Units</u>		Analyzed
RTEX	EPA 8021B					
Benzene		ND	1.0	ug/L		12/15/97
Toluene		ND	1.0	ug/L		12/15/97
Fthul benzene		ND	1.0	ug/L		12/15/97
Yulenes Total		ND	2.0	ug/L		12/15/97
SUBBOGATES & Recovery						_
- Propofluorobenzene		107	Min:	76	Max	: 112
Velatile Bet Widrocarbons	8015B/API					
VOIALILE FEL AVALOCATIONS	••==;===	ND	100	ug/L		12/15/97
VFR CIRRACINES & Becovery		-				
BURRUGALES, & RECOVELY		100	Min:	70	Max	: 130

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Page 3

TRC Environmental Corporation TEST RESULTS by SAMPLE

Order # 97-12-052 ANALYTICA, INC.

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Sample: 04A BH-D	Coll	ected: 12/04/9	7 Mat	rix: WAT	rer	
Test Description	Method	<u>Result</u> O	<u>Limit</u>	<u>Units</u>		<u>Analyzed</u>
BTEX	EPA 8021B			/-		12/15/97
Denzene		ND	1.0	ug/L		12/15/97
Teluene		1.0	1.0	ug/L		12/15/9/
Totuene		ND	1.0	ug/L		12/15/9/
Etnyibenzene		ND	2.0	ug/L		12/15/97
Xylenes, Total						
SURROGATES, & Recovery		103	Min:	76	Max:	112
p-Bromofluorobenzene						
Volatile Pet Hydrocarbons	SOIDE/API	NT	100	ug/L		12/15/97
VPH		ND	200			
SURROGATES, & Recovery			Min.	70	Max:	130
p-Bromofluorobenzene		100	MT11:	, 0		
-						
Sample: 05A BH-B	Col	lected: 12/04/	97 Ma	CIIX: WA	11 121	
-		- 1	T 2 2 +	IInite		Analvzed
Test Description	Method	<u>Result</u> <u>O</u>	<u>Limic</u>	<u>Onrea</u>		
BTEX	EPA 8021B					12/15/97
Benzene		25	1.0	ug/L		12/15/07
Toluene		4.6	1.0	ug/L		12/15/37
Ethylbenzene		26	1.0	ug/L		12/15/9/
Yulenes Total		8.2	2.0	ug/L		12/15/97
ATTENES, TOCAL						
SURROGATES, & RECOVELY		93.3	Min:	76	Max:	112
p-Bromoriuorobenzene	90158/ADT					
Volatile Pet Hydrocarbons	OVIDD/ HET	870	100	uq/L		12/15/97
VPH		070		2.		
SURROGATES, & Recovery		100	Min	70	Max:	130
p-Bromofluorobenzene		100	*******		•••••	
	0-1	loctod, 12/04	/97 M=	trix: W	ATER	
Sample: 06A BH-F	Col					
	Nathad		Limit	Units		Analyzed
Test Description	Method	RESULL V	<u> </u>			

Test Description	Metnoa	Result V	TTUTC	<u>0</u>		
BTEX Benzene Toluene Ethylbenzene	EPA 8021B	73 6.0 75	1.0 1.0 1.0	ug/L ug/L ug/L		12/15/97 12/15/97 12/15/97
Xylenes, Total SURROGATES, % Recovery p-Bromofluorobenzene		59 90.0	2.0 Min:	ug/L 76	Max:	112
Volatile Pet Hydrocarbons VPH	8015B/AP1	1500	100	ug/L		12/ 15/97
p-Bromofluorobenzene		103	Min:	70	Max:	130

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Page 4

TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 07A BH-A,4'

Collected: 12/04/97 Matrix: SOIL

Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>	Analyzed
PTEX	EPA 8021B				20/20/07
Bangana		11000 D	1600	ug/Kg-DRY	12/16/97
Meluene		5200 D	1600	ug/Kg-DRY	12/16/9/
Toluene		24000 D	1600	ug/Kg-DRY	12/16/97
Etnylbenzene		280000 D	3200	ug/Kg-DRY	12/16/97
Xylenes, Total					
SURROGATES, & Recovery		123 *	Min:	61 Max:	114
p-Bromofluorobenzene	NOT TOOLS	21 9	0.1	WT%	12/10/97
Percent Moisture	ASIM DZZIO	2 1.7			
Volatile Pet Hydrocarbons	8015B/AP1	2200000 D	160000	ug/Kg-DRY	12/16/97
VPH		2200000 D	TOCCC		
SURROGATES, % Recovery			Mine	50 Max:	150
p-Bromofluorobenzene		104	t,1∓t1 •	50	
Sample: 08A BH-B,4'	Col	lected: 12/0	04/97 Mai	trix: SOIL	
Sample: 08A BH-B,4'	Col	lected: 12/0	04/97 Mat <u>0 Limit</u>	trix: SOIL	<u>Analyzed</u>
Sample: 08A BH-B,4' Test Description	Col <u>Method</u> EPA 8021B	lected: 12/0	04/97 Mat <u>0 Limit</u>	trix: SOIL	<u>Analyzed</u>
Sample: 08A BH-B,4' <u>Test Description</u> BTEX Benzene	Col Method EPA 8021B	lected: 12/0 <u>Result 0</u> 15000 D	04/97 Mat <u>0 Limit</u> 1600	trix: SOIL <u>Units</u> ug/Kg-DRY	<u>Analyzed</u> 12/16/97
Sample: 08A BE-B,4' <u>Test Description</u> BTEX Benzene Toluene	Col <u>Method</u> EPA 8021B	lected: 12/0 <u>Result 0</u> 15000 D 8800 D	0 4/9 7 Mat <u>0 Limit</u> 1600 1600	trix: SOIL <u>Units</u> ug/Kg-DRY ug/Kg-DRY	<u>Analyzed</u> 12/16/97 12/16/97
Sample: 08A BH-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene	Col <u>Method</u> EPA 8021B	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D	04/97 Mat <u>0 Limit</u> 1600 1600 1600	trix: SOIL <u>Units</u> ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97
Sample: 08A BH-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene Yulenea, Total	Col <u>Method</u> EPA 8021B	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D 110000 D	04/97 Mat <u>0 Limit</u> 1600 1600 1600 3200	trix: SOIL <u>Units</u> ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97 12/16/97
Sample: 08A BE-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene Xylenes, Total CUPPCCLERE A Descuert	Col <u>Method</u> EPA 8021B	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D 110000 D	0 4/9 7 Ma <u>D Limit</u> 1600 1600 1600 3200	trix: SOIL <u>Units</u> ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97 12/16/97
Sample: 08A BE-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene Xylenes, Total SURROGATES, % Recovery	Col <u>Method</u> EPA 8021B	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D 110000 D	04/97 Ma <u>0 Limit</u> 1600 1600 1600 3200 Min:	trix: SOIL Units ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY 61 Max:	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97 12/16/97 114
Sample: 08A BE-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene Xylenes, Total SURROGATES, % Recovery p-Bromofluorobenzene	Col Method EPA 8021B	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D 110000 D 117 * 22.0	04/97 Mat <u>0 Limit</u> 1600 1600 1600 3200 Min: 0.1	trix: SOIL Units ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY 61 Max: WT%	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97 12/16/97 114 12/10/97
Sample: 08A BE-B,4' <u>Test Description</u> BTEX Benzene Toluene Ethylbenzene Xylenes, Total SURROGATES, % Recovery p-Bromofluorobenzene Percent Moisture	Col <u>Method</u> EPA 8021B ASTM D2216	lected: 12/0 <u>Result</u> 15000 D 8800 D 15000 D 110000 D 117 * 22.0	04/97 Mat <u>0 Limit</u> 1600 1600 1600 3200 Min: 0.1	trix: SOIL Units ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY 61 Max: WT%	<u>Analyzed</u> 12/16/97 12/16/97 12/16/97 12/16/97 114 12/10/97

p-Bromofluorobenzene

SURROGATES, & Recovery

Sample: 09A BH-E,4'

Collected: 12/04/97 Matrix: SOIL

104 Min: 50 Max: 150

Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX Benzene Toluene Ethylbenzene	EPA 8021B	1000 D 290 D 1400 D	130 130 130 270	ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	12/16/97 12/16/97 12/16/97 12/16/97
Xylenes, Total SURROGATES, % Recovery p-Bromofluorobenzene Percent Moisture	ASTM D2216	97.5 6.60	Min: 0.1	61 Max WT%	: 114 12/10/97
Volatile Pet Hydrocarbons VPH	8015B/API	160 000 D	13000	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery p-Bromofluorobenzene		175 *	Min:	50 Max	: 150

TRC Environmental Corporation TEST RESULTS by SAMPLE

Sample: 10A BH-F,4'

Collected: 12/04/97 Matrix: SOIL

.

Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX Benzene Toluene Ethylbenzene Xylenes, Total	EPA 8021B	4.7 1.9 3.5 6.4	1.3 1.3 1.3 2.6	ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY ug/Kg-DRY	12/17/97 12/17/97 12/17/97 12/17/97
SURROGATES, % Recovery p-Bromofluorobenzene Percent Moisture	ASTM D2216	110 24.2	Min: 0.1	61 Max: WT%	: 114 12/10/97
Volatile Pet Hydrocarbons VPH	8015B/API	650	130	ug/Kg-DRY	12/17/97
SURROGATES, % Recovery p-Bromofluorobenzene		113	Min:	50 Max	: 150

Sample: 11A TRIP BLANK

Collected: 12/04/97 Matrix: WATER

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Test Description	Method	<u>Result 0</u>	<u>Limit</u>	<u>Units</u>		<u>Analyzed</u>
BTEX Benzene Toluene Ethylbenzene Xylenes, Total	EPA 8021B	nd Nd Nd Nd	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L		12/15/97 12/15/97 12/15/97 12/15/97
SURROGATES, % Recovery p-Bromofluorobenzene		103	Min:	76	Max:	112
Volatile Pet Hydrocarbons VPH	8015B/API	ND	100	ug/L		12/15/97
SURROGATES, % Recovery p-Bromofluorobenzene		100	Min:	70	Max:	130

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TRC Environmental Corporation TEST METHODOLOGIES

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field... ND = not detected at the reported limit NA = analyte not applicable (see case narrative/methods for discussion) Q (qualifier) field... GENERAL: * = Recovery or %RPD outside method specifications H = value is estimated due to analysis run outside EPA holding times E = reported concentration is above the instrument calibration range D = analyte was diluted to bring within instrument calibration range or to remove matrix interferences ORGANIC ANALYSIS DATA QUALIFIERS: B = analyte was detected in the laboratory method blank J = analyte was detected above the instrument detection limit (IDL) but below the analytical reporting limit (CRDL) . • INORGANIC ANALYSIS DATA QUALIFIERS: B = analyte was detected above the instrument detection limit (IDL) but below the analytical reporting limit (CRDL) W = post digestion spike did not meet criteria (80-120%) S = reported value determined by the Method of Standard Additions

TRC Environmental Corporation TEST METHODOLOGIES

METHOD: 8020

BTEX_S: BTEX (GCPID)

BTEX_W: BTEX (GCPID)

METHOD: 8020

VPH_S: VOLATILE PETROLEUM HYDROCARBONS METHOD: mod 8015/API gasoline Analysis of volatile gasoline components. 5 grams of sample are sparged per method 5030A and analyzed by GC-FID using chromatographic conditions outlined in the American Petroleum Institute method for gasoline and SW846 8015 modified for gasoline. The sample is quantitated against known concentrations of gasoline standards.

VPH_W: VOLATILE PETROLEUM HYDROCARBONS METHOD: mod 8015/API gasoline Analysis of volatile gasoline components. 5 mLs of sample are sparged per method 5030A and analyzed by GC-FID using chromatographic conditions outlined in the American Petroleum Institute method for gasoline and SW846 8015 modified for gasoline. The sample is quantitated against known concentrations of gasoline standards.

PMOIST: PERCENT MOISTURE

METHOD: ASTM D2216

TRC Environmental Corporation DATES REPORT

Matrix: WATER Sample: 01A BH-A Extracted Analyzed TCLP date Received **Collected** Method Analysis 12/15/97 NA 12/05/97 12/04/97 EPA 8021B BTEX 12/15/97 NA 12/05/97 12/04/97 8015B/API Volatile Pet Hydrocarbons Matrix: WATER Sample: 02A BH-B Analyzed Extracted TCLP date Received **Collected** Method <u>Analysis</u> 12/15/97 NA 12/05/97 12/04/97 EPA 8021B BTEX 12/15/97 NA 12/05/97 8015B/API 12/04/97 Volatile Pet Hydrocarbons Matrix: WATER Sample: 03A BH-C Analyzed Extracted TCLP date Received **Collected** Method Analysis 12/15/97 NA 12/05/97 12/04/97 EPA 8021B BTEX 12/15/97 12/05/97 NA 12/04/97 8015B/API Volatile Pet Hydrocarbons •• Matrix: WATER Sample: 04A BH-D Analyzed Extracted TCLP date Collected Received Method Analysis 12/15/97 NA 12/05/97 12/04/97 EPA 8021B BTEX 12/15/97 NA 12/04/97 12/05/97 8015B/API Volatile Pet Hydrocarbons Matrix: WATER Sample: 05A BH-E Analyzed Extracted TCLP date Received Collected Method Analysis 12/15/97 12/05/97 NA 12/04/97 EPA 8021B BTEX 12/15/97 NA 12/05/97 12/04/97 Volatile Pet Hydrocarbons 8015B/API Matrix: WATER Sample: 06A BH-F Extracted Analyzed TCLP date Received **Collected** Method <u>Analysis</u> 12/15/97 NA 12/04/97 12/05/97 EPA 8021B BTEX 12/15/97 NA 12/05/97 12/04/97 8015B/API Volatile Pet Hydrocarbons Matrix: SOIL Sample: 07A BH-A,4' Analyzed Extracted TCLP date Received Collected <u>Analysis</u> Method 12/16/97 NA 12/05/97 12/04/97 EPA 80218 BTEX 12/10/97 NA 12/05/97 ASTM D2216 12/04/97 Percent Moisture 12/16/97 NA 12/05/97 12/04/97 8015B/API Volatile Pet Hydrocarbons Matrix: SOIL Sample: 08A BH-B,4' <u>Analyzed</u> Extracted TCLP date Received Collected Method Analysis 12/16/97 NA 12/05/97 EPA 80218 12/04/97 BTEX 12/10/97 NA 12/05/97 12/04/97 ASTM D2216 Percent Moisture 12/16/97 NA

12/04/97

8015B/API

Volatile Pet Hydrocarbons

12/05/97

Page 9

TRC Environmental Corporation DATES REPORT

Sample: 09A BH-E,4'

Matrix: SOIL

Matrix: SOIL

Matrix: WATER

		Collected	Received	TCLP date	Extracted	Analyzed
Analysis	Method	COTTECECC	22/05/07	NA		12/16/97
BTEX	EPA 8021B	12/04/97	12/05/97	2 12 C		12/10/97
	NOTH 02216	12/04/97	12/05/97	na		12/10/9/
Percent Moisture	ASIA DELLO		20/05/07	NA		12/16/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/5/			

Sample: 10A BH-F,4'

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<u>Analysis</u> BTEX Percent Moisture	Method EPA 8021B ASTM D2216 8015B/ABI	<u>Collected</u> 12/04/97 12/04/97 12/04/97	<u>Received</u> 12/05/97 12/05/97 12/05/97	<u>TCLP date</u> NA NA NA	<u>Extracted</u>	<u>Analyzed</u> 12/17/97 12/10/97 12/17/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/9/	<u>I</u> III		

Sample: 11A TRIP BLANK

			Received	TCLP date	Extracted	Analyzed
Analysis	Method	Confected	RECEIVED			12/15/97
BAEY	EPA 8021B	12/04/97	12/05/97	NA		12/13/3.
eita	BUISB/ADI	12/04/97	12/05/97	NA	• •	12/15/97
Volacile Pet Hydrocarbons	00130/10 -					

ATTACHMENT 2 CORRESPONDENCE

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TRC

02/23/98 10:	:37
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ECOLOGY, NWRO

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Image: Section of Section (Section (Sect	Wile Original and First Copy with WATER Department of Ecology STATE Third Copy - Driller's Copy STATE (1) OWNER: Name, Daniel T. Anderson STATE (2) LOCATION OF WELL: county. Eins Bearing and distance from section or subdivision corner (3) PROPOSED USE: Domestic E Industrial D Municip Municip Irrigation D Test Well D Other Other (4) TYPE OF WORK: Owner's number of well 1 New well B Method: Dug D Bon Date Despend D Cable D Jriv Responditioned D Rotary E Jette			Z 4/06 Application	NO. 19184911995		
(1) OWNER: Number 2011(2) 7. Andors contact and mark states (2012) 3. B. 2001. Issaercah. Wash. (2022) (2) LOCATION OF WELL: County_King (3) FROPOSED USE: Devel 8 Induction (1) Muserial (1) Mu	Department of Ecology Second Copy - Owner's Copy	STATE OF W	ASHINGTON	Permit No.	*		
(1) OWNER: Manuel Latitics 21, 100007901 Address 2111 Address 2111 Address 2111 Address 2111 The K SME _ K S			24723	23 S.E. 30th Issaquah Wash. 9			
(1) LOCATION OF WELL Comp_ELRE	(1) OWNER: Name Daniel T. A	JIGELEOU	Address - 1		24	R v	
Intering and disease from methor are relation of a provided in the second of in determined in the second in the	(2) LOCATION OF WELL: Count	branking.	······································		1	COLUMN T	
(3) PEOPOSED USE2 Denotes 6 Industrial □ Musicipal D Musicipal D Personal District 0 Persona District 0 Persona District 0 Personal District 0 P	Boaring and distance from section or subdiv	delon corner					
Intraction D Terrents D<	19.7 25.7 30 TOOL 19.7 20 100 TOOL 10.7 20 100 TOOL 10	industrial 🗋 Municipal 🗍	(10) WELL	LOUI	nat and struc	-	
(4) TYPE OF WORK: Correct number of well	BOYGENELL REPORT Year and Provide Copy with STATE OF WAREN LODGY Year and Year Copy Normal 1) OWNERE News Damiel T, Andorech Address 24723 S. F. 20ch Issection Issection of the section of cohorder copy NR & 200 Normal 10) DIACATION OF WELL County ELING NR & 200 Normal NR & 200 Normal 10) DIACATION OF WELL County ELING NR & 200 Normal NR & 200 Normal 11) OWNERE News Constrain Constraint Constraint NR & 200 Normal NR & 200 Normal 11) OWNERE News Constraint Constraint Constraint NR & 200 Normal NR & 200 Normal 11) OWNERE News Constraint Constraint NR & 200 Normal NR & 200 Normal 11) OWNERE News Constraint Constraint NR & 200 Normal NR & 200 Normal 11) OWNERE News Constraint Constraint NR & 200 Normal NR & 200 Normal 12) ODIMENSIONS: Dumation R & 10 Normal NR & 200 Normal 13) DIMENSIONS: Dumation R & 10 Normal NR & 200 Normal 14) Constraint Constraint NR & 200 Normal NR & 200 Normal 10) CONSTRUCTION DERAILS: NR & 10 Normal NR & 200 Normal 11) Constraint Constraint NR & 10 Normal NR & 10 Normal 12) Constraint Constraint NR & 10 Normal NR & 10 Normal 13) State Constraint NR & 10 Normal NR & 10 Normal 12) Constrainton Normal NR	aquifers and the kind and nature o	f the materia change of f	il in i			
(v) For with find Machaniz User D Desert D <td>(A) TYPE OF WORK: Owner's nu</td> <td>mber of well</td> <td></td> <td>MATERIAL</td> <td>FROM</td> <td>T</td>	(A) TYPE OF WORK: Owner's nu	mber of well		MATERIAL	FROM	T	
Despend Cashe D Drive D Drive D Reserved D Rest of Served D (6) DIMENSIONS: District of well Detuited 200 n. Depin of emploted well. 200 new solid by Said of Cashe 13 (7) FURST Said District of the solid by Said of Said Said of Said of Said Said of Said of Said Said of Said Sai	New well Q 2	Method: Dug 🛛 Bored 🖸	Brown	1t. Sand, Clay	0		
Separative Dimensions: Description of world Ender (6) DIMENSIONS: Description of world B. Index. Draided.200_r. Depth of completed wall.200_r. (7) CONSTRUCTION DEFAILS: Casing installed: 0. Transdd D Date. from		Cable D Driven D	Gray San	d			
(f) DIMENSIONS: Demoter of well 0. tanket Demied 200	KACOBAIHUNGU (_	0	Brown St	lty Clay			
Dritted. 200 R. Depth of semiphive will. 200 (9) CONSTRUCTION DETAILS: Grav Silk Stone 18 Casing installed: - Diam from	(5) DIMENSIONS: Dismete	is of well	<u>Gray Sil</u>	ty Sand		A	
(6) CONSTRUCTION DETAILS: Casing installed: 8 (7) Construction: year (8) CONSTRUCTION DETAILS: Construction: (9) CONSTRUCTION DETAILS: Construction: (9) CONSTRUCTION DETAILS: Construction: (9) CONSTRUCTION: Year (10) Construction: Year (11) Construction: Year (12) Construction: Year (12) Construction: Year (13) Construction: Year (14) Construction: Year (15) Construction: Year (16) WATER LEVELS: Year (17) FUMP: Year Year Year (16) WATER LEVELS: Year (17) FUMP: Year (17) FUMP: Year (18) WATER LEVELS: Year <t< td=""><td>Drilled 200 R. Depth of d</td><td>Jubbiered MethCool</td><td>Brown St</td><td>ty Sand</td><td>13</td><td>1</td></t<>	Drilled 200 R. Depth of d	Jubbiered MethCool	Brown St	ty Sand	13	1	
Casing installed: 8 - Dick from 0, at to 20, a Transition 2, Dick from 0, at to 20, a Silt Stone 121 Silt Stone 121	(6) CONSTRUCTION DETAILS:	- ·	Grav Sil	t Stone	28	11	
Treaded D Diam. from R. 46 R. Waded B Diam. from R. 40 R. Perforations: Yes D No B Silt Sibne Silt Sibne Perforations: Yes D No B Silt Sibne Silt Sibne Sint Sibne	Casing installed: 8 Diam.	from 0 ft, to 200 ft.	Bolder	Rock	119	12	
Welded B Differ that them Differ that the set of	Threaded D' Diam.	from R. to R. ;	Silt Sto	ne		20	
Perforations: Yes 0 No 3 Strate of partorations from in. by in. mainter of partorations from in. in. mainter of partorations from in. in. mainter of partorations from in. in. Gravel packedit gravit in. in. Garacel packedit in. in. Mathematic and partial digits in. in. Mathematic and partial digits in. in. <tr< td=""><td>Welded &</td><td></td><td> </td><td></td><td></td><td><u> </u></td></tr<>	Welded &					<u> </u>	
Type of particular used in. by n. getter of particular used in. by n. getter of particular used ft. to ft. getter of used used ft. ft. getter of used used ft. ft. getter of used used ft. ft. getter of used	Perforations: Yes D No 🗄		1				
And By Performations Dom R. to R.	Type of partorator Used	in. by in.		·			
	Billin of perforations from	st. 10 St.					
Spreamint year No B Stantingturry Name Type Type Stot size Stot size Srom Stot size Srom Diam. Biot size Careed placed from R. to Method of realing state of meal logitonize 20. in Method of realing state of Deptonize Type of weith Deptonize Static level Bio of sea store store Actesian presents Bio of sea store store Method of testine Bio of sea store store Static level Bio of sea store store Weit Level No file of test store Weit Level <t< td=""><td>perforations from</td><td></td><td>·</td><td></td><td></td><td>ł</td></t<>	perforations from		·			ł	
Sereens: ye D No B Manufacturry's Nature Type Dism. Bits size from St. to St. Dism. Bits size from St. to St. Dism. Bits size from St. to St. Dism. Bits size from St. to St. Cravel packed: yes D No B Street gravel: Cravel placed from D To what depths? 20. is Method of sealing strate off. Type of water? On the depths? 20. is Method of sealing strate off. (7) FUMP: minutacturer's NameJACULZ21 Type: 234C ws - 2 (6) WATER LEVELS: Lando-strate extrate Artesian gravestre mader Yes D No B Street as a serie whom a ter J name (7) WELL TENTS: Drawdown is amount water level is low water is controlled by (Cap. valve. efc.) (9) WELL TENTS: Drawdown is amount water level is low water is controlled by (Cap. valve. efc.) Time water is controlled by Water Lovel Time Water Level Time Water Lovel Time Water Lovel Time Water Lovel Time Water Lovel Time Water Lovel Time Water Level Time Water Lovel Time Water Lovel Time Water Lovel Time Water Level Time Water Lovel Time Water Lovel Time Water Lovel Time Water Level Time Water Lovel Time Water Lovel Time Water Lovel Time Water Love				·		<u> </u>	
Maximulturery Name Model No	Screens: Yes D No E					<u> </u>	
Diam. Biol size from ft. to ft. Diam. Biol size ftrom ft. to ft. Cravel paskkedi: yes [] No B Size of gravel: ft. ft. Cravel paskkedi: yes [] No B Size of gravel: ft. ft. Cravel paskkedi: yes [] No B Size of gravel: ft. ft. Cravel paskkedi: yes [] No B Size of gravel: ft. ft. Material used in seal BontOnitic. Did any strain contain unusable water: Yes [] No B ft. Type of weber? Dept of strata Of 01 2 1 15!?/ ft. ft. Method of sealing strata off. Bolt of strata ft. ft. ft. (7) PUMP: strainutcourse's NameJACULZI HP 2 DEFARIMENT OF FCOLOST ft. (8) WATER LEVELS: Latid-surface slevation ft. ft. ft. Static level 130 ft. bolow top of wall past fore ft. ft. ft. (9) WELL TESTS: Drawdown stor ft. ft. ft. ft. ft. measted form ft. dead		Model No	1				
Diam. Biol pipe Brom R. W Biol pipe Gravel piecked: Yes No B Steered used from At to At Gravel piecked: Yes No B Steered used from At to At Surface scale: Yes B No D To what depth) 20. is RECEIVED Material used in new Bentonite Bentonite No B Yes D No B Type of water Bentonite No B Steered used in seal. Bentonite Wested of any strais contain useals of strata More strais Bio pipe Strais Bio pipe (7) PUMP: maintringer's Name JACOUZZI More strata DEFARIMENT OF ICOLOSI (7) PUMP: Maintringer's Name JACOUZZI More strata Bio pipe Strais Bio pipe (8) WATER LEVELS: Lend-strates elevation At stain Bio pipe strata Bio pipe Bio pipe <td>Diam. symmetrie Slot size</td> <td>trom St. to minimum St.</td> <td>1 • • • • • • • • • • • • • • • • • • •</td> <td></td> <td></td> <td><u> </u></td>	Diam. symmetrie Slot size	trom St. to minimum St.	1 • • • • • • • • • • • • • • • • • • •			<u> </u>	
Gravel packed: yes D No B Size of provid:	Diem					<u> </u>	
Graved placed from R. 69 R. Surface scali: Yas (B) No (D) To what depth? 20. it. Material used in realBontonite Bontonite Did any strais contains unusable water? Yes (D) No (R) RECENVED Type of water? Depth of strata Method of scaling strata contains unusable water? Yes (D) No (R) (7) FUMF: manufacture's Names/BOULZZI DEFARIMENT OF FCOLO31 (7) FUMF: manufacture's names/BOULZZI MSP 2 (8) WATER LEVELS: Land-surface elevation fborg mean sea leval Blatic terel 1:30 Artestan water is controlled by (Cap. valve. etc.) (9) WELL TENTS: Drewdown is amount water level is (9) WELL TENTS: Drewdown is amount water level is (10) Water lacel water No B W yes, by whon? """"""""""""""""""""""""""""""""""""	Gravel packed: Yes 🗆 No 🗷	Bize of gravel;			, e /uda		
Surface seal: yes g No D To what depth? 20. it Method of sealing strais contain unusable water? Pre D No R Type of weter? Depth of strais Depth of strais (7) FUMP? Mainteopurer's NameJBOULZZI MP_2 (7) FUMP? Mainteopurer's NameJBOULZZI MP_2 (8) WATEE LEVELS: Land-strate of strais MP_2 (8) WATEE LEVELS: Land-strate of strais State herei Artestan pressure The per opuration state included by Clap. valve. efs.) (9) WELL TENTS: Drewdown is amount water level is lower made? Yes D No B Wase fully for made? """"""""""""""""""""""""""""""""""""	Gravel placed from					 	
Masterial used in seal	Surface scal: Yes @ No []	Fo what depth?20_ ft.	1	DECEIVEN			
Type at water: Depth of strata Method of sealing strate off. (7) FUMP: Manufacturer's NameJACUIZZI Type:	Material used in scal	DI WAIOT Yes D No D		N.F.		_	
Method of sealing sizels off. (7) FUMP: trianufacturer's NameJACULZZI. HP_2 Type:	Type of water?	. Depth of strata		<u> </u>			
(7) PUMP: Manufacturer's NameJROUZZI Type:	Method of sealing sizata of	,			7 	+	
Type:234CHP_2	(7) PUMP: Manufacturer's NameJBC	UZZI		DEPARIMENT OF FLORE	ICH		
(8) WATER LEVELS: Land-strictes elevation Static level 130 St. below top of well Date Static level 130 St. below top of well Date Artesian pressure Ibs. per square inch Date (9) WELL TESTS: Drewdown is amount water level is lowered below static level Was a pump test made? Yes [] No El If yes, by whom? Well A DRILLER'S STATEMENT: """"""""""""""""""""""""""""""""""""	Type:		J	CONTHWEST RESIDENCE ON		Ē	
Static level 130	(8) WATER LEVELS: Land-stur	face elevation can sea lovel uninterminant.				\vdash	
Artesian pressure	Static level 130	top of well Date 5-2-77				+	
(Cap. valve, etc.) (9) WELL TESTS: Drawdown is amount water level is lowered below static level Was a pump test made? Yes No & U yee, by whom? Yield: gal/min. with massaured from well top to water level Time Spm. Date Artestas flow spm. Date Temparature of Water Was a chemical analysis made? Yes No &	Artesian pressure	quare inch Dave				+	
(9) WELL TESTS: Drawdown is anount water level is lowered below static level Was a pump test made? Yes [] No El if yes, by whom? Yield: gal/min. with """"""""""""""""""""""""""""""""""""		(Cap, valve, etc.)	 			t	
Was a pump test made? Yes [] No E if yes, by whom?	(9) WELL TESTS: Drawdown lowered b) is amount water level is . clow static level	Work started	5-2 19 77. Completed	5-2		
Yield: endrawdown alter Arr	Was a pump test made? Yes 🗌 No 🖾 🛱	yes, by whom?	WELL DPY	LLER'S STATEMENT			
Address P. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Tacoma, Wash. Image address P. S. Q. Box 44408 Tacoma, Ta	Yield: gal/min. with f	n arawaown altor his.	The mail	was drilled under my turisdictie	on and this	: rep(
Recovery data (time taken as zero when pump surned off) (water level measured from well top to water level) Time Water Level Time Water Level Time Water Level Time Water Level Deto of test Baller test		۲۰ میں اور	true to the b	est of my knowledge and belief	l.	-	
Time Water Level Time Water Level Time Water Level Time Water Level (Person, firm, or corporation) (Type or pi Date of test	Recuvery data (time taken as zero whom	pump surned off) (water level	Dia	andenn Wall Dailing (20.		
Date of test Baller test Artesian flow Temparature of Waler Was a chemical analysis made? Yes No & License No.223-02-6500 Date. Oc.t. 7	Time Water Level Time Water	Level Time Water Level	NAME RICH	(Person, firm, or corporation)	(Type or]	print)	
Date of test Baller test 30 gal/min. with 50 st drawdown after 1 hrs. Artesian flow waler Was a chemical analysis made? Yes No & License No.223-02-6500 Date Octs 7	**************************************		Addapter P.(Box 44408 Tacoma.	lash.		
Date of test Baller test Artesian flow Temparature of Waler Weil Driller) Weil Driller) License No.223-02-6500 Date 00.54.7	~ ·····	**************************************			2 -		
Baller test. 30 gal/min. with 50 s. drawdown after 1 hrs. Artesian flow	Date of test	142000-921-971-500-944-944-944-9710	Istened to	it Maile		á.	
Temperature of Waler	Baller test. 30 gal/min. with 50	.s. drawdown after		(Well Driller)			
	Temparatire of Waller	içal analysis made? Yes 🚺 No 🖉	License No.2	23-02-6500 Date Oct	ÿ	, 1 I	
			I				

Appendix B – Geophysical Report


Underground Detection Services, Inc.

> 6809 North 56th Ave. Glendale, AZ 85301

623/939-4690, tel 602/955-3146, fax 888/822-4999, toll-free April 19, 2013

James Georgis Zipper Geo Associates, LLC 19023 36th Ave W, Suite D Lynnwood, WA 98036

Dear James:

This is a report on the equipment, procedures, and results of the geophysical survey performed at BMC Lumber, 5210 East Lake Sammamish Pkwy SE, Issaquah, WA. The survey was performed on April 17, 2013.

There were several areas that were to have soil borings and one area of a former UST to be surveyed with the GPR.

The equipment that was used for the survey included, but was not limited GSSI Sir 3000 System ground penetrating radar (GPR) with 270 MHz antenna and pipe/cable locators.

The GPR utilizes high frequency radio waves to probe the subsurface. A radio wave is emitted from the antenna and travels through the soil, if there is an anomaly below the antenna; the radio wave is reflected back. The data that is collected is displayed in real time, through a color display.

The data that is produced is a cross section of the geology directly below the antenna. The top of the data represents the ground surface while the bottom of the page is a reading depth of the equipment. The data is collected and displayed from left to right, with left being the beginning and right being the end of the particular survey line. Anomalies typically appear white on a color screen.

The depth of the signal penetration is dependent upon geological factors beyond the control of the surveyor. Conductive soils, clays, and saturated soils, do not allow the GPR signal to penetrate as deeply as less resistive sandy soil. The pipe/cable locators were used around each proposed soil boring. Utility lines that were found were marked on the surface with marking paint. A Public gas meter was observed on an east building. The utility company should be informed that the line had not been marked and should be marked before any drilling occurs on site.

The GPR survey was setup on the west side of the lumber yard where the reported UST had been removed. The antenna was pushed across the top of the surface where the soil borings were marked. Data was collected continually and examined on site. The data did show an area approximately 25' X 25' that appears to have been excavated. The area was marked on the surface with marking pain. An area directly north of the excavation was surveyed with the GPR. An unknown anomaly appears in the data. The anomaly could be a pipe associated with the drainage system. The anomaly was marked on the surface with marking paint.

UST's, excavations, and pipes/cables in the survey area may not have been located due to material, depth of pipe, the UST's collapsed and filled with native soil, reinforced concrete, and UST's that were not within the geophysical survey area.

Respectfully,

Rihand G. Jun

Richard A. Lund



Possible UST pit



Unknown anomaly north of UST pit



Electrical lines along perimeter fence



GPR Data; Catch basin, South to North, drain line



GPR Data; UST oit, East to West



GPR Data; UST pit, W-E



GPR Data; UST pit, S-N



GPR Data; UST pit, N-S



GPR Data; UST pit, S-N, soil boring, excavation



GPR Data; UST pit, S-N, excavation



GPR Data; UST pit, W-E



GPR Data; UST pit, E-W



GPR Data; South of UST pit, W-E



GPR Data; North of UST pit, W-E, unknown anomaly



GPR Data; North of UST pit, E-W



GPR Data; North of UST pit, W-E



GPR Data; North of UST pit, E-W



GPR Data; North of UST pit, W-E

Appendix C – Supplemental Subsurface Investigation Figures

GP-9 SAMPLE DEPTH GRO BENZENE	
(it) (mg/Kg) (mg/Kg) GP9-1 4 <3.0 <0.03	GP-8/MW-4 (RIM = 99.96 ft)
GP9-2 10 <3.0 <0.03	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	GP8-2 8 3.8 0.030
$\frac{GP-7/MW-3 (RIM = 99.73ft)}{DEPTH GRO BENZENE}$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	GP-5 SAMPLE DEPTH GRO BENZENE
GP7-2 9 <3.0 <0.03	GP5-1 5 2,800 2.0
	GP5-2 10 <3.0 <0.03
	GP 1/MW 1 (PM 00 00 f)
	$\frac{GF - IIMW - I}{SAMPLE} \frac{DEPTH}{GRO} \frac{GRO}{EENZENE}$
	(h) (mg/Kg) (mg/Kg) GP1-1 5 530 0.20
GP-4 SAMDLE DEPTH GRO BENZENE	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
SAMPLE (fr) (mg/Kg) (mg/Kg) GP4-1 5 1,100 <0.30	
GP4-2 9 4.5 <0.03	
	$SAMPLE \qquad \begin{array}{c} OP-2 \\ \hline \\ Bepth \\ (h) \\ (malka) \\ (malk$
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	GP2-2 8 <3.0 <0.03
550	ESTIMATED EXTENT OF IMPACTED SOIL ABOVE CLEANUP LEVELS
	GP-3
	SAMPLE DEPTH GRO BENZENE (fi) (mg/Kg) (mg/Kg)
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$GP-6/MW-2 (RIM = 99.45 \text{ ft})$ $SAMPLE \qquad DEPTH \qquad GRO \qquad BENZENE$
	SAMPLE (ft) (mg/Kg) (mg/Kg) GP6-1 5 <3.0
	GP6-2 10 <3.0 <0.03

GP-1/MW-1 (RIM = 99.99 fi)
DIRECT PUSH/GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION. GROUNDWATER MONITORING WELL MONUMENT RIM ELEVATION IN FEET.

SITE SPECIFIC BENCHMARK PK NAIL WITH WASHER ASSUMED ELEVATION = 100 FEET



APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK CAVITY IDENTIFIED BY GROUND PENETRATING RADAR SURVEY



DATE: JUNE 2013	Job No.	1099.22
Zipper Geo Associates, LLC	FIGURE	•
19023 36th Ave. W.,Suite D		- 3
Lynnwood, WA	SHT. 1 of 1	0



 GP-1/MW-1 (GW = 97.80 ft)
 DIRECT PUSH/GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION. GROUNDWATER ELEVATION ON 5/8/2013 IN FEET.
 SITE SPECIFIC BENCHMARK PK NAIL WITH WASHER ASSUMED ELEVATION = 100 FEET

ESTIMATED GROUNDWATER SURFACE CONTOUR WITH ELEVATION IN FEET



APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK CAVITY IDENTIFIED BY GROUND PENETRATING RADAR SURVEY



BMC WEST							
5210 East Lake Sammamish Parkway SE							
Issaquah, Washington							
SUMMARY OF GROUNDWATER ANALYTICAL TEST RESILTS							
DATE: JUNE 2013	Job No.	1099.22					
Zipper Geo Associates, LLC	FIGURE	,					
19023 36th Ave. W.,Suite D Lynnwood, WA	SHT. 1 of 1	4					
Lynnwood, WA	SHT. 1 of 1	4					

Appendix D – Supplemental Subsurface Investigation Exploration Logs

Boring Location: See Figure 2, Site and Exploration Plan		nd Exploration Plan	Drilling Company: Cascade Drilling		Bore Hole Dia.:2-1/4"			
Тор	Elevation: -		Drilling Met	thod:	Direct Push	<u>Hammer T</u>	ype: NA	GP1
Date	e Drilled: 4/25/2013		<u>Drill Rig:</u>		Track	Logged by	<u>:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices t	RIPTION the approximate boundaries on may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Andiysis
- 0	3 Inches of ASPHALT (Fill) Gray-brown, moist to wet, sandy Moderate probe resistance. Slig 2 feet. (Fill) Dark brown, wet, SILT, some fi Easily probed. Moderate hydro (Possible Relic Topsoil) Brown grading to gray, wet grad SAND, trace clay. Easily probed noted to about 8 feet. (Alluvium) Gray, saturated, silty SAND. Easily hydrocarbon odor noted. (Alluviu	r GRAVEL, some silt. ht hydrocarbon odor noted at ne sand, trace fine roots. carbon odor noted. ing to saturated, silty fine . Moderate hydrocarbon odor sily probed. No obvious Im)	GP I 6 GP I 6 GP I 6 1-2 I 6 1-2 I 6		PID@5'=660ppm PID@9.5'=0ppm PID@12'=0ppm	NT NT NT NT	TPH, BTEX, M TPH, BTEX, M TPH, BTEX, M	ITBE, LEAD ITBE, LEAD ITBE, LEAD
20-	 Light gray, saturated, SILT. Echydrocarbon odor noted. (Possex) Exploration completed at 15 feer Groundwater observed at appro Well tag # BIC-221. 	isily probed. No obvious sible Volcanic Ash) t . ximately 6 feet ATD.						
	SAMPLE LEGEND Retained portion of 2-inch direct push sample NOTES PID = Photoionization detector readings in parts/million NT = Not tested	GROUNDWATER LEGEND		BMC West 2510 East Lake Samammish Parkway Issaquah, WA Date: 4/29/2013 Project No.: Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA Page 1 c			ay SE 1099.22 GP1 of 1	

Bori	ng Location: See Figure 2, Site an	d Exploration Plan	Drilling Company: Cascade Drilling		Cascade Drilling	Bore Hole Dia.: 2-1/4"		
Тор	Elevation: -		Drilling Met	thod:	Direct Push	<u>Hammer T</u>	ype: NA	GP2
Date	<u>e Drilled:</u> 4/25/2013		Drill Rig:		Track	Logged by	<u>r:</u> JPG	
	SOIL DESC	RIPTION		er				
Depth (ft)	The stratification lines represent between soil types. The transiti report text and appendices f	the approximate boundaries on may be gradual. Refer to or additional information.	Sample Number SAMPLES Recovery	Ground Wate	Field Head Space	Sheen	Laboratory	Andiysis
-0-	3 Inches of ASPHALT (Fill)	,	1					
	Gray-brown, moist to wet, sandy Moderate probe resistance. Sligl 2 feet. (Fill)	GRAVEL, some silt. ht hydrocarbon odor noted at						
- 5 -	 Dark brown, wet, SILT, some fine sand, trace fine roots. Easily probed. Slight hydrocarbon odor noted. (Possible Relic Topsoil) 		GP I 6		PID@5'=0ppm	NT	TPH, BTEX, N	ITBE, LEAD
	Gray, saturated, silty fine SAND, trace clay to sand, some silt, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			4/25/13	DID@7' Anne	NT	TOU DIEY N	
	Gray, saturated, clayey SILT. Ec hydrocarbon odor noted. (Alluviu	isily probed. No obvious im)			Fib@7=0ppin		IFII, BIEA, N	IIBE, LEAD
10-	Gray, saturated, SAND, some si hydrocarbon odor noted. (Alluviu							
	_ 				PID@12'=0ppm	NT		
15	Light gray, saturated, SILT, som obvious hydrocarbon odor noted	ne wood. Easily probed. No d. (Possible Volcanic Ash)	-					
	Exploration completed at 15 feet Groundwater observed at approx	: . ximately 6 feet ATD.						
20-								
25								
2.5	SAMPLE LEGEND	GROUNDWATER LEGEND						
	Retained portion of 2-inch	Clean Sand						
	direct push sample	Bentonite						
		Grout/Concrete						
	NOTES	Screened Casing				BMC We	st	
	PID = Photoionization detector	 Blank Casing Groundwater level at 			2510 East Lake	Samami saayab	mish Parkwo WA	ay SE
	NT = Not tested	time of drilling (ATD)		Date:	4/29/2013	saquun,	Project No.:	1099.22
		 measurement. 		Zij 19	pper Geo Assoc 023 36th Ave. W, S	ciates Suite D	BORING	GP2
					Lynnwood, WA		Page 1	of 1

<u>Bori</u>	ng Location: See Figure 2, Site ar	nd Exploration Plan	Drilling Cor	npany:	Cascade Drilling	Bore Hole Dia.: 2-1/4"		
Тор	Elevation: -		Drilling Met	hod:	Direct Push	<u>Hammer 1</u>	Type: NA	GP3
Date	<u>e Drilled:</u> 4/25/2013		<u>Drill Rig:</u>		Track	Logged by	<u>r:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices t	CRIPTION t the approximate boundaries fon may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 0 -	3 Inches of ASPHALT (Fill) Gray-brown, wet to saturated, G Moderate probe resistance. No noted. (Fill) Gray, saturated, gravely SAND, Slight hydrocarbon odor noted to	RAVEL, some sand. obvious hydrocarbon odor some silt. Easily probed. o about 6 feet. (Alluvium)	GP T 6	4/25/1				
. 10 -			3-1 ⊥ °	13	PID@5'=0ppm PID@8'=0ppm	NT	TPH, BTEX, N	/TBE, LEAD
10-	0 - Gray, saturated, fine, sandy SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium) Gray-brown, saturated, SILT, trace fine sand & wood. Easily probed. No obvious hydrocarbon odor noted. (Alluvium) Exploration completed at 15 feet . Groundwater observed at approximately 4 feet ATD.				PID@13'=0ppm	NT	TPH, BTEX, N	/TBE, LEAD
	SAMPLE LEGEND Retained portion of 2-inch direct push sample NOTES PID = Photoionization detector readings in parts/million NT = Not tested	GROUNDWATER LEGEND Clean Sand Bentonite Grout/Concrete Screened Casing Blank Casing Groundwater level at time of drilling (ATD) or on date of measurement.		BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA Date: 4/29/2013 Project No.: 109 Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA Page 1 of 1				ay SE 1099.22 GP3 1 of 1

Boring Location: See Figure 2, Site and Exploration Plan		Drilling Cor	rilling Company: Cascade Drilling		Bore Hole Dia.: 2-1/4"			
Тор	Elevation: -		Drilling Met	hod:	Direct Push	<u>Hammer T</u>	ype: NA	GP4
Date	<u>e Drilled:</u> 4/25/2013		Drill Rig:		Track	Logged by	<u>r:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices f	RIPTION the approximate boundaries on may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 0 -	2-1/2 Inches of ASPHALT (Fill)	/	1					
	Gray-brown, moist, gravelly SAN SAND. Moderate probe resistand noted. (Fill)	ID, some silt to silty, gravelly ce. Slight hydrocarbon odor						
- 5 -	Gray-brown, wet, SILT, some fin Easily probed. Moderate hydroc (Possible Relic Topsoil) Gray, wet grading to saturated, f	ne sand, trace fine roots. carbon odor noted. 	GP 4-1 I 6	4/2	PID@5'=310ppm	NT	TPH, BTEX, N	1TBE, LEAD
	probed. Moderate hydrocarbon c	odor noted. (Alluvium)		25/13				
· 10 -	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)		GP 4-2 I 6		PID@9'=0ppm	NT	TPH, BTEX, N	ITBE, LEAD
	hydrocarbon odor noted. (Alluviu			PID@12'=0nnm	NT			
	Wood. No obvious hydrocarbor	n odor noted. (Alluvium)	,		TID @ 12 = oppin			
	Light gray, saturated, SILT, trac	ce wood. Easily probed. No `` d. (Possible Volcanic Ash)						
- 15 -	Exploration completed at 15 feet Groundwater observed at approx	t . ximately 5 feet ATD.						
20 -								
25								
25 -	SAMPLE LEGEND	GROUNDWATER LEGEND						
	Retained portion of 2-inch	Clean Sand						
	direct push sample	Bentonite						
		Grout/Concrete						
	NOTES	Screened Casing		.		SMC We	est miah Du l	
	PID = Photoionization detector	 Blank Casing Groundwater level at 			2510 East Lake	Samami	misn Parkwo WA	ay SE
	NT = Not tested	time of drilling (ATD)		Date:	4/29/2013	suquuri,	Project No.:	1099.22
		measurement.		7:	por Goo Acces	sister	BORING	
				21] 19	023 36th Ave. W, S Lynnwood, WA	Suite D	LOG:	GP4

Bori	ng Location: See Figure 2, Site ar	d Exploration Plar	ı	Drilling Cor	<u> Drilling Company:</u> Cascade Drilling		Bore Hole Dia.: 2-1/4"		
Тор	Elevation: -			Drilling Met	hod:	Direct Push	<u>Hammer T</u>	ype: NA	GP5
Date	<u>e Drilled:</u> 4/25/2013			<u>Drill Rig:</u>		Track	Logged by	<u>:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices f	RIPTION the approximate t on may be gradua or additional inforr	ooundaries I. Refer to nation.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 0 -	3 Inches of ASPHALT (Fill) Gray-brown, moist, silty, gravelly resistance. No obvious hydrocar	SAND. Moderate	probe Fill)						
- 5 -	Gray-brown, wet, SILT, some fi Easily probed. Moderate hydrod (Possible Relic Topsoil) Gray, saturated, fine sandy SILT probed. Moderate hydrocarbon o	ne sand, trace fine carbon odor noted to silty fine SAND odor noted. (Alluvia	e roots. . Easily um)	GP I 6	4/25/13	PID@5'=720ppm PID@7'=95ppm	NT	TPH, BTEX, N	ITBE, LEAD
	Gray, saturated, clayey SILT to	silty CLAY. Easily d. (Alluvium)	probed. No						
10-	Gray, saturated, SAND, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			GP 5-2 I 6			NT	TPH, BTEX, N	ITBE, LEAD
15 -	Light gray, saturated, SILT, some wood. Easily probed. No obvious hydrocarbon odor noted. (Possible Volcanic Ash) Exploration completed at 15 feet. Groundwater observed at approximately 5 feet ATD					PID@12'=0ppm	NT		
20 -									
- 25 -	SAMPLE LEGEND Retained portion of 2-inch direct push sample	GROUNDWATE	<u>ER LEGEND</u> d crete				<u> </u>	<u> </u>	
	<u>NOTES</u> PID = Photoionization detector readings in parts/million NT = Not tested	Screened Blank Cas Groundwa time of dril or on date	Casing ing ter level at ling (ATD) of		BMC West 2510 East Lake Samammish Parkv Issaquah, WA			st mish Parkwa WA Project No.:	ay SE 1099.22
		 measurem 	ent.		Zip 190	oper Geo Assoc 023 36th Ave. W, S Lynnwood, WA	ciates Suite D	BORING LOG: Page 1	GP5

Bori	ng Location: See Figure 2, Site ar	nd Exploration Plan	Drilling Company: Cascade Drilling		Bore Hole Dia.: 2-1/4"			
Тор	Elevation: -		Drilling Met	thod:	Direct Push	<u>Hammer T</u>	ype: NA	GP6
Date	e Drilled: 4/25/2013		<u>Drill Rig:</u>		Track	Logged by	<u>:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices f	CRIPTION the approximate boundaries on may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 0 -	4 Inches of ASPHALT (Fill) Gray-brown, moist, gravelly SAN resistance. No obvious hydrocar Gray-brown, wet, clayey SILT, Easily probed. No obvious hydr (Possible Relic Topsoil) Gray, saturated, silty SAND. Eas hydrocarbon odor noted. (Alluvio , Gray, saturated, clayey SILT. E , hydrocarbon odor noted. (Alluvio , Gray, saturated, clayey SILT. E	ND, some silt. Moderate probe bon odor noted. (Fill) trace fine sand and roots. ocarbon odor noted. sily probed. No obvious um) Easily probed. No obvious	GP I 6 6-1 I 6 6-2 I 6		PID@4'=0ppm PID@10'=0ppm	NT NT NT	TPH, BTEX, M TPH, BTEX, M	ITBE, LEAD
20-	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium) // Light gray, saturated, SILT. Easily probed. No obvious / hydrocarbon odor noted. (Possible Volcanic Ash) / Gray, saturated, well graded SAND, trace silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium) 5 Exploration completed at 15 feet. Groundwater observed at approximately 4.5 feet ATD. Well tag 3 BIC-222.							
	SAMPLE LEGEND Retained portion of 2-inch direct push sample <u>NOTES</u> PID = Photoionization detector readings in parts (million	GROUNDWATER LEGEND Clean Sand Bentonite Grout/Concrete Screened Casing Blank Casing Groundwater level at		2	E 2510 East Lake	BMC We Samami	st mish Parkwa	ay SE
	NT - Not tested	time of drilling (ATD)		Data	4/29/2013	Juquun,	Project No.	1000 22
	IN I = INOT TESTED	번 이 or on date of 이 measurement.		Zip 19	oper Geo Assoc 23 36th Ave. W, S Lynnwood, WA	ciates Guite D	BORING LOG:	GP6

Boring Location: See Figure 2, Site and Exploration Plan		nd Exploration Plan	Drilling Company: Cascade Drilling		Bore Hole Dia.: 2-1/4"			
Тор	Elevation: -		Drilling Met	hod:	Direct Push	<u>Hammer T</u>	ype: NA	GP7
Date	e Drilled: 4/25/2013		Drill Rig:		Track	Logged by	<u>r:</u> JPG	
	SOIL DESC	CRIPTION		är				
Depth (ft)	The stratification lines represent between soil types. The transiti report text and appendices	t the approximate boundaries ion may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Wate	Field Head Space	Sheen	Laboratory	Analysis
-0-	、3 Inches of ASPHALT (Fill)	/						
	Gray-brown, moist, gravelly SAN silt. Moderate probe resistance. noted. (Fill)	ND to sandy GRAVEL, some No obvious hydrocarbon odor						
- 5 -	Gray-brown, wet, clayey SILT, Easily probed. No obvious hyd (Possible Relic Topsoil)	Gray-brown, wet, clayey SILT, trace fine sand and roots. Easily probed. No obvious hydrocarbon odor noted. (Possible Relic Topsoil) 		4/25	PID@4'=0ppm	NT	TPH, BTEX, N	ITBE, LEAD
	hydrocarbon odor noted. (Alluv	ium)	1	5/13		NT		
	Gray, saturated, SILT, some so	and and clay. Easily probed.						
	Gray, saturated, sand, some si hydrocarbon odor noted. (Alluv	ilt. Easily probed. No obvious	GP T		-тошит.5 =оррпі			
10-	Gray, saturated, clayey SILT to silty CLAY. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)		, 7-2 ▲ °		PID@9'=0ppm	NT	TPH, BTEX, N	ITBE, LEAD
	hydrocarbon odor noted. (Alluv			BID@12'-0nnm	NT			
	 Interbedded, gray, saturated, silty SAND and fine to medium SAND, some silt. No obvious hydrocarbon odor noted. (Alluvium) 				FID@12=oppin			
15-	Exploration completed at 15 fee Groundwater observed at appro	t. ximately 4.5 feet ATD.						
_	Well tag 3 BIC-223.							
20-								
25-								
2.5	SAMPLE LEGEND	GROUNDWATER LEGEND						
	Retained portion of 2-inch	Clean Sand						
	direct push sample	Bentonite						
		Grout/Concrete						
	NOTES	Screened Casing		_		SMC We	est	
	PID = Photoionization detector	 Blank Casing Groundwater level at 		∠	2010 East Lake	Samami	misn Parkwa	ay SE
	NT = Not tested	- time of drilling (ATD)		Date.	4/29/2013	suquuri,	Proiect No ·	1099.22
		measurement.			,,		BORING	
				∠ıı 19	oper Geo Assoc 023 36th Ave. W, S Lynnwood, WA	ciates Suite D	LOG:	GP7
I					_j		Page 1	of 1

Boring Location: See Figure 2, Site and Exploration Plan		nd Exploration Plan	Drilling Cor	rilling Company: Cascade Drilling		Bore Hole Dia.: 2-1/4"		
<u>Top</u>	Elevation: -		Drilling Me	thod:	Direct Push	<u>Hammer T</u>	ype: NA	GP8
Date	e Drilled: 4/26/2013		<u>Drill Rig:</u>	•	Track	Logged by	<u>r:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices t	CRIPTION t the approximate boundaries ion may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 0 -	3 Inches of ASPHALT (Fill)	· · · · · · · · · · · · · · · · · · ·	,					
	Gray-brown, moist, gravelly SAN silt. Moderate probe resistance. noted. (Fill)	ND to sandy GRAVEL, some No obvious hydrocarbon odor						
- 5 -	Brown, wet, clayey SILT, trace fine sand and roots. Easily probed. Moderate hydrocarbon odor noted. (Possible Relic Topsoil)			4/26/1	PID@4.5'=950ppm	NT	TPH, BTEX, N	ITBE, LEAD
	Gray, saturated, silty SAND to SAND, with silt. Easily probed. Slight hydrocarbon odor noted to depth of about 8 feet. (Alluvium)		GP 8-2 I 6	3	PID@7.5"=80ppm	NT	TPH, BTEX, N	ITBE, LEAD
10-	Gray, saturated, fine sandy SILT, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium) Gray, saturated, SAND, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)				PID@10'=0ppm	NT		
					PID@13'=0ppm	NT		
- 15 -	Exploration completed at 15 fee Groundwater observed at appro Well tag # BIC-224	t. ximately 4.5 feet ATD.						
20-								
25-								
- 25 -	SAMPLE LEGEND Retained portion of 2-inch direct push sample	GROUNDWATER LEGEND Image: Clean Sand Image: Clean Sand <		·				
1	<u>NOTES</u>	Screened Casing			E	BMC We	st	
	PID = Photoionization detector Blank Casing				2510 East Lake	Samamı	mish Parkw	ay SE
	readings in parts/million	Groundwater level at itime of drilling (ATD)			lss	saquah, '	WA	
	NT = Not tested	or on date of		Date:	4/29/2013		Project No.:	1099.22
		medourement.		Zij 19	oper Geo Assoc 023 36th Ave. W, S Lynnwood. WA	ciates Suite D	BORING LOG:	GP8
					_,		Page 1	l of 1

<u>Bori</u>	ng Location: See Figure 2, Site ar	nd Exploration Plan	Drilling Company: Cascade Drilling		Bore Hole Dia.: 2-1/4"			
Тор	Elevation: -		Drilling Met	thod:	Direct Push	<u>Hammer T</u>	ype: NA	GP9
Date	<u>e Drilled:</u> 4/26/2013		<u>Drill Rig:</u>		Track	Logged by	<u>:</u> JPG	
Depth (ft)	SOIL DESC The stratification lines represent between soil types. The transiti report text and appendices t	CRIPTION t the approximate boundaries fon may be gradual. Refer to for additional information.	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory	Analysis
- 5 -	3 Inches of ASPHALT (Fill) Gray-brown, moist, gravelly SAN resistance. No obvious hydrocar Gray-brown, wet, SILT, some of probed. No obvious hydrocarbo (Possible Relic Topsoil) Gray, saturated, silty fine SAND obvious hydrocarbon odor noted Gray, saturated, SILT, some fine probed. No obvious hydrocarbon	ND, some silt. Moderate probe bon odor noted. (Fill) clay, trace fine roots. Easily on odor noted. , trace clay. Easily probed. No d. (Alluvium) e sand, trace clay. Easily n odor noted. (Alluvium)	GP Ⅰ 6	4/26/1 3	PID@4'=0ppm PID@6'=0ppm	NT NT NT	TPH, BTEX, N	ITBE, LEAD
- 10 - - 15 - - 20 -	Gray, saturated, SAND, with silt hydrocarbon odor noted. (Alluvia Exploration completed at 15 fee Groundwater observed at appro	t. ximately 4 feet ATD.	GP 9-2 I 6		PID@10'=0ppm PID@12'=0ppm	NT	TPH, BTEX, M	ITBE, LEAD
- 25 -	SAMPLE LEGEND Retained portion of 2-inch direct push sample <u>NOTES</u> PID = Photoionization detector readings in parts/million NT = Not tested	GROUNDWATER LEGEND Image: Second Stress Image: Second Stress		Date: Zij 19	E 2510 East Lake 1st 4/29/2013 Oper Geo Assoc 023 36th Ave. W, S Lynnwood, WA	BMC We Samamı saquah, V	st mish Parkwa WA Project No.: BORING LOG: Page 1	ay SE 1099.22 GP9 of 1

Appendix E – Supplemental Subsurface Investigation Analytical Results



May 6, 2013

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-

Dear Mr. Einarsen,

On April 26th, 21 samples were received by our laboratory and assigned our laboratory project number EV13040174. The project was identified as your BMC. 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

Jager

Rick Bagan Laboratory Director

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CERTIFICATE OF ANALYSIS

CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036- Jon Einarsen BMC		CC	DATE: ALS JOB#: ALS SAMPLE#: DATE RECEIVED: COLLECTION DATE:			00 AM	
CLIENT SAMPLE ID	GP 1-1		WDOE /	ACCREDITATIC	DN: C60)1		
		DA	TA RESULTS					
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY	
TPH-Volatile Range	NWTPH-GX	530	30	10	MG/KG	04/30/2013	DLC	:
Benzene	EPA-8021	0.20	0.15	5	MG/KG	04/30/2013	DLC	:
Toluene	EPA-8021	U	0.25	5	MG/KG	04/30/2013	DLC	:
Ethylbenzene	EPA-8021	4.4	0.25	5	MG/KG	04/30/2013	DLC	:
Xylenes	EPA-8021	6.3	1.0	5	MG/KG	04/30/2013	DLC	:
TPH-Diesel Range	NWTPH-DX	200	25	1	MG/KG	04/29/2013	EBS	;
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	:
Lead	EPA-6020	7.9	0.50	5	MG/KG	04/30/2013	RAL	_ :
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY	
TFT 10X Dilution	NWTPH-GX	8.77 GS2				04/30/2013	DLC	:
TFT 5X Dilution	EPA-8021	107				04/30/2013	DLC	:
C25	NWTPH-DX	92.8				04/29/2013	EBS	:

GS2 - Surrogate outside of control limits due to dilution.

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.

Gasoline range product results biased high due to semivolatile range product overlap. Diesel range product results biased high due to gasoline range product overlap.

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		CERTIFIC	CATE OF ANALYSIS	S					
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174						
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC		ا CO	DATE RECEIVE	ALS SAMPLE#: -02 ATE RECEIVED: 4/26/2013 LECTION DATE: 4/25/2013 8:00:00 AN				
CLIENT SAMPLE ID	GP 1-2		WDOE A	CCREDITATIO	N: C60)1			
		DA	TA RESULTS						
ANAI YTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY		
TPH-Volatile Range	NWTPH-GX	39	3.0	1	MG/KG	04/29/2013	DLC		
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC		
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC		
Ethylbenzene	EPA-8021	0.40	0.050	1	MG/KG	04/29/2013	DLC		
Xylenes	EPA-8021	0.83	0.20	1	MG/KG	04/29/2013	DLC		
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS		
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS		
Lead	EPA-6020	3.9	0.50	5	MG/KG	04/30/2013	RAL		
SURROGATE	METHOD	%RFC				ANALYSIS /	ANALYSIS BY		
TFT	NWTPH-GX	98.1				04/29/2013	DLC		
TFT	EPA-8021	98.8				04/29/2013	DLC		
C25	NWTPH-DX	76.6				04/29/2013	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.

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		CERTIFIC	ATE OF ANALYSI	S					
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174						
CLIENT CONTACT.	Jon Finarsen		ALS SAMPLE#03						
CLIENT PROJECT:	BMC		CO	LLECTION DATE	: 4/2	5/2013 8:00	:00 AM		
CLIENT SAMPLE ID	GP 1-3		WDOE A	ACCREDITATION	I: C60)1			
		DA	TA RESULTS						
αναι ντε	METHOD	RESULTS	REPORTING LIMITS	REPORTING DILUTION ANA LIMITS FACTOR LIMITS D					
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC		
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC		
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC		
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC		
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC		
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS		
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS		
Lead	EPA-6020	2.6	0.50	5	MG/KG	04/30/2013	RAL		
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY		
TFT	NWTPH-GX	80.5				04/29/2013	DLC		
TFT	EPA-8021	79.7				04/29/2013	DLC		
C25	NWTPH-DX	86.2				04/29/2013	EBS		

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS	5				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174					
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen BMC GP 2-1		ן CO WDOE A	DATE RECEIVE	D: 4/26 E: 4/28 N: C60	6/2013 5/2013 8:00: 01	00 AM	
		DA	TA RESULTS					
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	ANALYSIS BY	
TPH-Volatile Range	NWTPH-GX	36	3.0	1	MG/KG	04/29/2013	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC	
Ethylbenzene	EPA-8021	0.11	0.050	1	MG/KG	04/29/2013	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
Lead	EPA-6020	5.4	0.50	5	MG/KG	04/30/2013	RAL	
SURROGATE	METHOD	%REC				ANALYSIS A DATE	ANALYSIS BY	
TFT	NWTPH-GX	85.1				04/29/2013	DLC	
TFT	EPA-8021	86.1				04/29/2013	DLC	
C25	NWTPH-DX	87.3				04/29/2013	EBS	

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains an unidentified gasoline range product.

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		CERTIFIC	ATE OF ANALYSI	S				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174					
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC		l CO	DATE RECEIVED	9: 4/26 1: 4/25	6/2013 5/2013 8:00	:00 AM	
CLIENT SAMPLE ID	GP 2-2		WDOE A	ACCREDITATION	l: C60)1		
		DA	TA RESULTS					
	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY	
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
Lead	EPA-6020	2.8	0.50	5	MG/KG	04/30/2013	RAL	
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY	
TFT	NWTPH-GX	83.1				04/29/2013	DLC	
TFT	EPA-8021	89.1				04/29/2013	DLC	
C25	NWTPH-DX	80.2				04/29/2013	EBS	

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS	S					
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V	ates V., Suite D	DATE: 5/6/2013 ALS JOB#: EV13040174						
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC	550-	I CO	DATE RECEIVE	E#: -06 ED: 4/26/2013 TE: 4/25/2013 8:00:00 AM				
CLIENT SAMPLE ID	GP 3-1		WDOE A	CCREDITATIO	N: C60)1			
		DA	TA RESULTS						
αναι ντε	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR		ANALYSIS /	ANALYSIS BY		
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC		
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC		
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC		
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC		
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC		
TPH-Diesel Range	NWTPH-DX	29	25	1	MG/KG	04/29/2013	EBS		
TPH-Oil Range	NWTPH-DX	50	50	1	MG/KG	04/29/2013	EBS		
Lead	EPA-6020	2.2	0.50	5	MG/KG	04/30/2013	RAL		
SURROGATE	METHOD	%REC				ANALYSIS /	ANALYSIS BY		
TFT	NWTPH-GX	74.0				04/29/2013	DLC		
TFT	EPA-8021	79.5				04/29/2013	DLC		
C25	NWTPH-DX	92.6				04/29/2013	EBS		

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.

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		CERTIFIC	ATE OF ANALYSI	S				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174					
CLIENT CONTACT:	Jon Einarsen): 4/26	6/2013		
CLIENT PROJECT:	BMC		CO	LLECTION DATE	: 4/2	5/2013 8:00	:00 AM	
CLIENT SAMPLE ID	GP 3-2		WDOE A	ACCREDITATION	I: C60)1		
		DA	TA RESULTS					
αναι γτε	METHOD	RESULTS	REPORTING LIMITS	REPORTING DILUTION AN LIMITS FACTOR LINUTS			ANALYSIS BY	
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
Lead	EPA-6020	2.7	0.50	5	MG/KG	04/30/2013	RAL	
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY	
TFT	NWTPH-GX	80.4				04/29/2013	DLC	
TFT	EPA-8021	79.8				04/29/2013	DLC	
C25	NWTPH-DX	83.9				04/29/2013	EBS	

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS	5			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	pper Geo Associates DATE: 5/6/2 3023 - 36th Ave W., Suite D ALS JOB#: EV13 /nnwood, WA 98036- ALS SAMPLE#: -08					
CLIENT CONTACT:	Jon Einarsen		I	DATE RECEIVE	ED: 4/20	6/2013	
CLIENT PROJECT:	BMC		CO	LLECTION DAT	TE: 4/2	5/2013 8:00:	:00 AM
CLIENT SAMPLE ID	GP 4-1		WDOE A	CCREDITATIO	DN: C60)1	
		DA	TA RESULTS				
			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	1100	60	20	MG/KG	05/01/2013	DLC
Benzene	EPA-8021	U	0.30	10	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.50	10	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	7.7	0.50	10	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	8.2	2.0	10	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	70	45	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	6.6	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				DATE	БТ
TFT 20X Dilution	NWTPH-GX	23.9 GS2				05/01/2013	DLC
TFT 10X Dilution	EPA-8021	40.7 GS2				04/30/2013	DLC
C25	NWTPH-DX	86.3				04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit. GS2 - Surrogate outside of control limits due to dilution.

Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

Diesel range product reporting limits raised due to volatile range product overlap.

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		CERTIFIC	ATE OF ANALYSIS	S				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood WA 98(ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174					
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC			DATE RECEIVE	E: 4/20	6/2013 5/2013 8:00:	:00 AM	
CLIENT SAMPLE ID	GP 4-2		VVDOE F	CCREDITATIC	IN. COU)		
		DA	TA RESULTS					
	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A	ANALYSIS BY	
TPH-Volatile Range	NWTPH-GX	4.5	3.0	1	MG/KG	04/30/2013	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
Lead	EPA-6020	4.3	0.50	5	MG/KG	04/30/2013	RAL	
SUBBOGATE	METHOD	% PEC				ANALYSIS A DATE	ANALYSIS BY	
TET		22 Q				04/30/2013		
TFT	FPA-8021	83.2				04/30/2013		
C25	NWTPH-DX	64.9				04/29/2013	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.

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	CERTIFIC	ATE OF ANALISI	5				
Zipper Geo Associ 19023 - 36th Ave V	ates V., Suite D D36-		DATE: 5/6/2013 ALS JOB#: EV13040174				
Jon Einarsen BMC		CO	DATE RECEIVE	D: 4/20	6/2013 5/2013 8:00:	00 AM	
GP 5-1		VVDOE /	ACCREDITATIO	IN. COU	71		
	DA	TA RESULTS					
METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY	
NWTPH-GX	2800	120	40	MG/KG	04/30/2013	DLC	
EPA-8021	2.0	1.2	40	MG/KG	04/30/2013	DLC	
EPA-8021	U	2.0	40	MG/KG	04/30/2013	DLC	
EPA-8021	41	2.0	40	MG/KG	04/30/2013	DLC	
EPA-8021	240	8.0	40	MG/KG	04/30/2013	DLC	
NWTPH-DX	320	25	1	MG/KG	04/29/2013	EBS	
NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
EPA-6020	8.7	0.50	5	MG/KG	04/30/2013	RAL	
METHOD	%REC				ANALYSIS A DATE	NALYSIS BY	
NWTPH-GX	12 2 652				04/30/2013		
FPA-8021	14.0 GS2				04/30/2013		
NWTPH-DX	79.6				04/29/2013	EBS	
	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen BMC GP 5-1 METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 EPA-8021 NWTPH-DX NWTPH-DX EPA-6020 METHOD NWTPH-GX EPA-8021 NWTPH-DX	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036- Jon Einarsen BMC GP 5-1 DATENDO METHOD RESULTS NWTPH-GX 2800 EPA-8021 2.0 EPA-8021 U EPA-8021 41 EPA-8021 240 NWTPH-DX 320 NWTPH-DX U EPA-6020 8.7 METHOD %REC NWTPH-GX 12.2 GS2 EPA-8021 14.0 GS2 NWTPH-DX 79.6	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036- Jon Einarsen BMC CO GP 5-1 WDOE A BMC CERTING BMC DATA RESULTS REPORTING LIMITS NWTPH-GX 2800 120 EPA-8021 U 2.0 EPA-8021 U 2.0 EPA-8021 U 2.0 EPA-8021 41 2.0 EPA-8021 240 8.0 NWTPH-DX 320 25 NWTPH-DX U 50 EPA-6020 8.7 0.50 METHOD %REC NWTPH-GX 12.2 GS2 EPA-8021 14.0 GS2 NWTPH-DX 79.6	CERTIFICATE OF ANALTSISZipper Geo AssociatesDAT19023 - 36th Ave W., Suite DALS JOELynnwood, WA 98036-ALS SAMPLEJon EinarsenDATE RECEIVEBMCCOLLECTION DATGP 5-1WDOE ACCREDITATIODATE RESULTSREPORTING DILUTION FACTORMETHODRESULTSNWTPH-GX280012040EPA-80212.012040EPA-8021U2.040EPA-80212408.040NWTPH-DX320251NWTPH-DX0501EPA-60208.70.505METHOD%RECNWTPH-GX12.2 GS2EPA-802114.0 GS2NWTPH-DX79.6	Zipper Geo Associates DATE: 5/6/ 19023 - 36th Ave W., Suite D ALS JOB#: EV Lynnwood, WA 98036- ALS SAMPLE#: -10 Jon Einarsen DATE RECEIVED: 4/24 BMC COLLECTION DATE: 4/24 GP 5-1 WDOE ACCREDITATION: C60 DATE RESULTS NUTPH-GX 2800 120 40 MG/KG EPA-8021 2.0 1.2 40 MG/KG EPA-8021 U 2.0 40 MG/KG EPA-8021 240 8.0 40 MG/KG EPA-8021 10 2.0 40 MG/KG EPA-8021 240 8.0 40 MG/KG NWTPH-DX 320 25 1 MG/KG NWTPH-DX U 50 1 MG/KG EPA-6020 8.7 0.50 5 MG/KG NWTPH-GX 12.2 652 MG/KG MG/KG	Zipper Geo Associates DATE: 5/6/2013 19023 - 36th Ave W., Suite D ALS JOB#: EV13040174 Lynnwood, WA 98036- ALS SAMPLE#: -10 Jon Einarsen DATE RECEIVED: 4/26/2013 BMC COLLECTION DATE: 4/25/2013 8:00: GP 5-1 WDOE ACCREDITATION: C601 DATE RESULTS METHOD RESULTS METHON ANALYSIS A NWTPH-GX 2800 120 40 MG/KG 04/30/2013 EPA-8021 2.0 1.2 40 MG/KG 04/30/2013 EPA-8021 10 2.0 40 MG/KG 04/30/2013 EPA-8021 240 8.0 40 MG/KG 04/30/2013 EPA-8021 240 8.0 40 MG/KG 04/30/2013 MWTPH-DX 320 25 1 MG/KG 04/30/2013 NWTPH-DX U 50 1 MG/KG 04/30/2013 EPA-6020 <t< td=""><td>Zipper Geo Associates DATE: 5/6/2013 19023 - 36th Ave W., Suite D ALS JOB#: EV13040174 Lynnwood, WA 98036- ALS SAMPLE#: -10 Jon Einarsen DATE RECEIVED: 4/26/2013 BMC COLLECTION DATE: 4/25/2013 8:00:00 AM GP 5-1 WDOE ACCREDITATION: C601 DATE RESULTS METHOD RESULTS DILUTION ANALYSIS ANALYSIS NWTPH-GX 2800 120 40 MG/KG 04/30/2013 DLC EPA-8021 2.0 1.2 40 MG/KG 04/30/2013 DLC EPA-8021 11 2.0 40 MG/KG 04/30/2013 DLC EPA-8021 14 2.0 40 MG/KG 04/30/2013 DLC EPA-8021 240 8.0 40 MG/KG 04/30/2013 DLC EPA-8021 240 8.0 40 MG/KG 04/30/2013 DLC NWTPH-DX 320 25 1 M</td></t<>	Zipper Geo Associates DATE: 5/6/2013 19023 - 36th Ave W., Suite D ALS JOB#: EV13040174 Lynnwood, WA 98036- ALS SAMPLE#: -10 Jon Einarsen DATE RECEIVED: 4/26/2013 BMC COLLECTION DATE: 4/25/2013 8:00:00 AM GP 5-1 WDOE ACCREDITATION: C601 DATE RESULTS METHOD RESULTS DILUTION ANALYSIS ANALYSIS NWTPH-GX 2800 120 40 MG/KG 04/30/2013 DLC EPA-8021 2.0 1.2 40 MG/KG 04/30/2013 DLC EPA-8021 11 2.0 40 MG/KG 04/30/2013 DLC EPA-8021 14 2.0 40 MG/KG 04/30/2013 DLC EPA-8021 240 8.0 40 MG/KG 04/30/2013 DLC EPA-8021 240 8.0 40 MG/KG 04/30/2013 DLC NWTPH-DX 320 25 1 M

GS2 - Surrogate outside of control limits due to dilution. 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 diesel. Diesel range product results biased high due to gasoline range product overlap.

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		CERTIFIC	ATE OF ANALYSI	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen BMC GP 5-2		I CO WDOE A	DATE RECEIVE LLECTION DAT	D: 4/26 E: 4/25 N: C60	5/2013 5/2013 8:00)1	:00 AM
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.7	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY
TFT	NWTPH-GX	73.9				04/30/2013	DLC
TFT	EPA-8021	76.8				04/30/2013	DLC
C25	NWTPH-DX	82.7				04/29/2013	EBS

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		CERTIFIC	ATE OF ANALYSIS	5			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC		I CO	DATE RECEIVE	E#: -12 D: 4/20 E: 4/20	6/2013 5/2013 8:00	:00 AM
CLIENT SAMPLE ID	GP 6-1		WDOE A	ACCREDITATIC	N: C60)1	
		DA	TA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	43	25	1	MG/KG	05/01/2013	EBS
TPH-Oil Range	NWTPH-DX	250	50	1	MG/KG	05/01/2013	EBS
Lead	EPA-6020	2.0	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY
TFT	NWTPH-GX	75.0				04/30/2013	DLC
TFT	EPA-8021	76.6				04/30/2013	DLC
C25	NWTPH-DX	85.2				05/01/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.

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		CERTIFIC	ATE OF ANALYSI	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	Zipper Geo Associates 19023 - 36th Ave W., Suite D vppwood, WA 98036-		DATE: 5/6/2013 ALS JOB#: EV13040174			
CLIENT CONTACT:	Jon Einarsen				7. 10 D: 4/26	6/2013	
CLIENT PROJECT:	BMC		CO	LLECTION DATE	E: 4/2	5/2013 8:00:	:00 AM
CLIENT SAMPLE ID	GP 6-2		WDOE A	ACCREDITATION	l: C60)1	
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.3	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS A DATE	ANALYSIS BY
TFT	NWTPH-GX	80.8				04/30/2013	DLC
TFT	EPA-8021	85.3				04/30/2013	DLC
C25	NWTPH-DX	84.7				04/29/2013	EBS

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		CERTIFIC	ATE OF ANALYSIS	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen BMC GP 7-1		I CO WDOE A	DATE RECEIVED	0: 4/26 E: 4/25 N: C60	6/2013 5/2013 8:00:)1	:00 AM
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.4	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS A DATE	ANALYSIS BY
TFT	NWTPH-GX	81.0				04/30/2013	DLC
TFT	EPA-8021	81.0				04/30/2013	DLC
C25	NWTPH-DX	91.4				04/29/2013	EBS

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		CERTIFIC	ATE OF ANALYSIS	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen BMC GP 7-2		i CO WDOE A	DATE RECEIVED LLECTION DATE	13 0: 4/20 1: C60	6/2013 5/2013 8:00)1	:00 AM
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	4.0	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY
TFT	NWTPH-GX	73.3				04/30/2013	DLC
TFT	EPA-8021	72.8				04/30/2013	DLC
C25	NWTPH-DX	86.7				04/29/2013	EBS

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		CERTIFIC	CATE OF ANALYSIS	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V	ates V., Suite D	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC	J36-	CO	ALS SAMPLE DATE RECEIVE LLECTION DAT	E#: -16 ED: 4/20 EE: 4/20	6/2013 6/2013 8:00:	:00 AM
CLIENT SAMPLE ID	GP 8-1		WDOE A	ACCREDITATIC	N: C60)1	
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	1900	60	20	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.60	20	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	1.0	20	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	19	1.0	20	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	72	4.0	20	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	85	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	6.7	0.50	5	MG/KG	04/30/2013	RAL
SUPPOCATE	METHOD	% PEC				ANALYSIS A DATE	ANALYSIS BY
TET 20X Dilution		24 O				04/20/2012	
TET 20X Dilution	EPA-8021	24.0				04/30/2013	
C25	NWTPH-DX	85.4				04/29/2013	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 diesel. Diesel range product results biased high due to gasoline range product overlap.

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		CERTIFIC	ATE OF ANALYSIS	5			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynpwood, WA 98036-		DATE: 5/6/2013 ALS JOB#: EV130401			
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen BMC GP 8-2		ן CO WDOE A	DATE RECEIVED	1: C60	6/2013 6/2013 8:00)1	:00 AM
		DA	TA RESULTS				
ΑΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	3.8	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	0.030	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.4	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.4				04/30/2013	DLC
TFT	EPA-8021	93.3				04/30/2013	DLC
C25	NWTPH-DX	84.0				04/29/2013	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.

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CERTIFICATE OF ANALYSIS								
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	Zipper Geo Associates 19023 - 36th Ave W., Suite D		DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC		I CO WDOE (DATE RECEIVE	:D: 4/20 E: 4/20	6/2013 6/2013 8:00	:00 AM	
CLIENT SAMFLE ID	GF 9-1			CCREDITATIC		/1		
		DA	TA RESULTS					
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY	
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS	
Lead	EPA-6020	3.1	0.50	5	MG/KG	04/30/2013	RAL	
SUPPOCATE	METHOD	%REC				ANALYSIS / DATE	ANALYSIS BY	
TFT		73.7				04/30/2013		
TFT	EPA-8021	76 7				04/30/2013	DLC	
C25	NWTPH-DX	89.2				04/29/2013	EBS	

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		CERTIFIC	ATE OF ANALYSIS	S			
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36-	DATE: 5/6/2013 ALS JOB#: EV13040174				
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen BMC		l CO	DATE RECEIVE	D: 4/26 E: 4/26	5/2013 5/2013 8:00:	:00 AM
CLIENT SAMPLE ID	GP 9-2		WDOE A	ACCREDITATIO	N: C60)1	
		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.5	0.50	5	MG/KG	04/30/2013	RAL
SURROGATE	METHOD	%REC				ANALYSIS A DATE	ANALYSIS BY
TFT	NWTPH-GX	76.4				04/30/2013	DLC
TFT	EPA-8021	78.5				04/30/2013	DLC
C25	NWTPH-DX	81.0				04/29/2013	EBS

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Appendix F – Remedial Action Photographs

Zipper Geo Associates, LLC BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report Project No. 1099.25



Photo #1. Asphalt removed and preparing to excavate contaminated soil.



Photo #2. Removal of clean overburden fill soils.



Photo #3. The stockpiled clean overburden soil was returned to the excavation following the remedial action.

Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report Project No. 1099.25



Photo #4. A 24-inch PVC storm water pipe was encountered along the west side of the remedial excavation. The pipe was not damaged by the excavator, instead water appeared to be leaking from a faulty pipe join.





Photo #6. Impacted soil continued to be removed using temporary soil berms to retain the storm water pipe water.



Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report Project No. 1099.25



Photo #7. A sump was installed in the remedial excavation to extract water for treatment and subsequent permitted disposal to the King County sanitary sewer system.



Photo #8. Dewatering effluent was stored in a series of four Baker tanks.



Photo #9. Dewatering effluent was treated with a sand filter and activated carbon, sampled and analyzed for TPH and BTEX, and discharged to the sanitary sewer under a King County permit.

Zipper Geo Associates, LLC BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report Project No. 1099.25



Photo #10. Rectangular-shaped areas that had been backfilled with pea gravel are assumed to be the former location of the three USTs removed in 1989.

Photo #11. The final extent of excavation.





Photo #12. Backfilled excavation.

Appendix G – Remedial Action Permits

CITY OF ISSAQUAH MITIGATED DETERMINATION OF NONSIGNIFICANCE (MDNS)

Description of Proposal: Proposal to remediate contaminated soil resulting from former underground storage tanks. The proposal includes excavating and disposing of an estimated 800 cubic yards of contaminated soil in a 3,600 SF area, collecting and analyzing soil samples during and after completion of remedial excavation, adding an oxygen-releasing compound to aid natural remediation, backfilling and resurfacing the excavation area, and subsequent groundwater sampling to evaluate the effectiveness of the remedial actions. Contaminated soil would be disposed of in a facility licensed to accept such material and replaced with clean fill.

The site is currently developed for commercial use. The contaminated soil area that would be excavated is presently asphalt paved and flat topography.

Proponent: Zipper Geo Associates 19023 36th Ave W, Suite D Lynnwood, WA. 98036 Attn: Jon Einarsen

Permit Number: SW14-00057

Location of Proposal: 5210 East Lake Sammamish Parkway

Lead Agency: City of Issaquah

Determination: The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

Comment/Appeal Period: This MDNS is issued under WAC 197-11-340(2) and 197-11-680(3)(a)vii. There is a 21-day combined comment/appeal period for this determination, between **September 17, 2014 and October 8, 2014.** Anyone wishing to comment may submit written comments to the Responsible Official. The Responsible Official will reconsider the determination based on timely comments. Any person aggrieved by this determination may appeal by filing a Notice of Appeal with the City of Issaquah Permit Center. Appellants should prepare specific factual objections. Copies of the environmental determination and other project application materials are available from the Issaquah Development Services Department, 1775 12th Avenue NW.

Appeals of this SEPA determination must be consolidated with appeal of the underlying permit, per IMC 18.04.250.

Notes:

- This threshold determination is based on review of the Remedial Investigation Report (Zipper Geo Associates) dated July 1, 2013; Phase 1 Environmental Site Assessment (Zipper Geo Associates) dated March 27, 2013; environmental checklist received August 20, 2014; and other documents in the file.
- 2) Issuance of this threshold determination does not constitute approval of the permit. The proposal will be reviewed for compliance with all applicable City of Issaquah codes, which regulate development activities, including the Land Use Code, Critical Area Regulations, Building Codes, Clearing and Grading Ordinance, and Surface Water Design Manual.

Findings:

- 1. The site is currently developed for commercial use; BMC West, a building materials and construction services company. The contaminated soil and remediation area is located in the asphalt paved parking area, approximately 50 feet east of East Lake Sammamish Parkway. The proposed remedial action would not affect current land uses on the subject site or impact adjacent properties.
- 2. The soil remediation area would be located approximately 350 feet south of Park Hill Creek, a Class 2 stream with salmonids. A Temporary Erosion Sedimentation Control (TESC) Report is required to ensure Best Management Practices (BMPs) are employed to prevent potential erosion, and to include provisions for stockpiling and transport of contaminated soils.
- 3. Soil contamination shall be removed consistent with the Washington State Model Toxic Control Act (MTCA) requirements. The applicant shall enroll in the State Department of Ecology (DOE) Voluntary Cleanup Program and pursue a No Further Action determination from DOE. A copy of the cleanup reports and subsequent monitoring reports shall be provided to the City of Issaquah.

Mitigation Measures: The Mitigated Determination of Nonsignificance is based on the checklist received August 20, 2014 and supplemental information in the application. The following SEPA mitigation measures shall be deemed conditions of the approval of the licensing decision pursuant to Chapter 18.10 of the Issaquah Land Use Code. All conditions are based on policies adopted by reference in the Land Use Code.

- 1. A Temporary Erosion Sedimentation Control (TESC) Report is required to ensure Best Management Practices (BMPs) are employed to prevent potential erosion, and to include provisions for stockpiling and transport of contaminated soils. The report shall be approved by the City of Issaquah prior to issuing construction permits.
- Soil contamination shall be removed consistent with the Washington State Model Toxic Control Act (MTCA) requirements. The applicant shall enroll in the State Department of Ecology (DOE) Voluntary Cleanup Program and pursue a No Further Action determination from DOE. A copy of the cleanup reports and subsequent monitoring reports shall be provided to the City of Issaquah.

Responsible Official:						
Positic	on/Title:					
Address/Phone:						
Date:	9/17/2014					

P.O. Box 1307, Issaguah, WA 98027-1307 (425) 837-3094 Signature:

cc: Washington State Department of Ecology

Washington State Department of Ecology, Toxics Cleanup Program, attn: Donna Musa Muckleshoot Indian Tribe U.S. Army Corps of Engineers

Washington State Department of Fish and Wildlife

Peter Rosen

Environmental Planner

Issaquah Development Services Department

Issaquah Public Works Engineering and Parks and Recreation Departments



Wastewater Treatment Division

Industrial Waste Program Department of Natural Resources and Parks 201 South Jackson Street, Suite 513 Seattle, WA 98104-3855

206-477-5300 Fax 206-263-3001 TTY Relay: 711

August 27, 2015

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Alex Fraser BMC Issaquah 5210 E. Lake Sammamish Parkway Issaquah, WA 98029

Issuance of Wastewater Discharge Authorization No. 996-01 to BMC Issaquah – PCS Excavation Construction Project

Dear Mr. Fraser:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge construction dewatering to the sewer system from the BMC Issaquah – PCS Excavation Construction Project located at 5210 East Lake Sammamish Parkway SE, Issaquah, Washington, and has issued the enclosed Minor Discharge Authorization No. 996-01.

This authorization permits you to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making these changes.

King County Code 28.84 authorizes a fee for each Minor Discharge Authorization issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a Minor Discharge Authorization is \$1,200. King County will send you an invoice for this amount.

Alex Fraser August 27, 2015 Page 2

If you have any questions about this discharge authorization or your wastewater discharge, please call me at 206-477-5457, or email me at dana.heinz@kingcounty.gov. You may also wish to visit our program's Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,

Dana Heinz Compliance Investigator

Enclosures

cc: Bob Brock, City of Issaquah Kristin Painter, King County



MINOR DISCHARGE AUTHORIZATION

King County Industrial Waste Program 201 S. Jackson Street, Suite 513 Seattle, WA 98104-3855

NUMBER 996-01

for

BMC Issaquah – PCS Excavation Construction Project

- Site address: 5210 E Lake Sammamish Parkway SE Issaquah, WA 98029
- Mailing address:5210 E Lake Sammamish ParkwayIssaquah, WA 98029
- **Phone:** 425-391-8000

Emergency (24-hour) phone: 206-423-6516

Industry type: Construction dewatering

Discharge to: South Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by construction dewatering operation

Pretreatment process: Gravity settling, bag filters, GAC

Maximum discharge volume:	36,000 gallons per day
Maximum discharge rate:	25 gallons per minute

Effective date:	August 27, 2015
Expiration date:	November 30, 2015

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization please call Industrial Waste Compliance Investigator Dana Heinz at 206-477-5457.

24-HOUR EMERGENCY NOTIFICATION South Treatment Plant: 206-263-1760 Washington State Department of Ecology: 425-649-7000

SPECIAL CONDITIONS

- A. Discharge to the sanitary sewer **shall not** begin until KCIW has conducted a preoperative inspection of the pretreatment facilities and has sent written notification (email is sufficient) to the permittee that discharges may begin.
- B. In accordance with the City of Issaquah requirements the discharge point is the side sewer manhole located at 5210 East Lake Sammamish Parkway SE or as otherwise designated by City of Issaquah representatives.
- C. No later than **September 4, 2015**, the permittee must submit a list of BMC Issaquah PCS Excavation Construction Project and contractor personnel responsible for dewatering activities, including operation and maintenance of the wastewater treatment system and monitoring of the discharge to the sanitary sewer. The list shall include the site contacts' name, title, company, and phone numbers (office and cell).
- D. All persons responsible for monitoring the discharge to the sanitary sewer shall review a copy of this authorization.
- E. A copy of this authorization shall be on site at all times for review and reference.
- F. This authorization grants the discharge of limited amounts of wastewater from the following waste streams:
 - 1. Contaminated stormwater runoff
 - 2. Excavation dewatering
 - 3. Well(s) dewatering

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

- G. The discharge shall not cause hydraulic overloading conditions of the sewerage conveyance system. During periods of peak hydraulic loading KCIW and City Of Issaquah representatives reserve the authority to request that discharge to the sewer be stopped.
- H. This discharge authorization is being issued with the understanding that no known soil or groundwater contamination is present on site. The authorization holder is responsible for contacting KCIW should site conditions indicate potential for contamination.
- I. All wastewater shall be collected and treated in accordance with treatment methods approved by KCIW. Wastewater shall not bypass treatment systems. Modifications to wastewater treatment systems shall not occur without prior approval from KCIW.
- J. Totalizing and non-resettable flow meters must be installed on all permitted discharge pipes to the sewer.

- K. An accessible sampling spigot must be installed on the discharge pipe from the last treatment unit of the wastewater treatment system. The sample site shall be representative of all industrial waste streams discharged to the sewer from this site. Each sample site shall be accessible to KCIW representatives when discharge to the sewer is occurring.
- L. The contractor shall implement erosion control best management practices to minimize the amount of solids discharged to the sanitary sewer system. As a minimum precaution, the wastewater must be pumped to an appropriately sized settling tank(s) prior to entering the sewer system.
- M. The permittee shall properly operate and maintain all wastewater treatment units to ensure compliance with established discharge limits. Solids accumulation in tanks used for solids settling shall not exceed 25 percent of the tank's working hydraulic capacity. Each tank's working hydraulic capacity is based on the water column height as measured from the bottom of the tank to either the invert elevation of the tank's outlet pipe (gravity discharges) or discharge pump intake (pumped discharges).
- N. Results of all required self-monitoring sampling must be recorded daily. Recorded information for each discharge site must include:
 - 1. Sample date
 - 2. Sample time
 - 3. Sample results
 - 4. Operator name
 - 5. Comments (if applicable)

These records shall be maintained on site and shall be available for review by KCIW personnel during normal business hours.

O. The permittee must establish a sewer account with City of Issaquah and provide necessary reports to ensure accurate assessment of sewer charges for all construction dewatering discharge sites associated with this project.

SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization:

Parameter	Frequency	Sample Type/Method
Discharge volume	Daily	In-line flow meter
Discharge rate	Daily	In-line flow meter
Settleable solids	Daily	Grab by Imhoff cone
pH	Daily	Hand-held meter
Nonpolar FOG	Weekly	3 Grabs
BTEX	Weekly	Grab
Lead, total	Weekly	Grab

- B. The settleable solids field test by Imhoff cone must be performed as follows:
 - 1. Fill cone to one-liter mark with well-mixed sample
 - 2. Allow 45 minutes to settle
 - 3. Gently stir sides of cone with a rod or by spinning; settle 15 minutes longer
 - 4. Record volume of settleable matter in the cone as ml/L
- C. The three nonpolar fats, oils, and grease (FOG) grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.
- D. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.
- E. You shall submit an end-of project self-monitoring report (form enclosed) within 15 days from completion of all construction dewatering activities to the sewer or by December 15, 2015, whichever comes first. The report must contain results of required self-monitoring and total volume discharged to the sewer.
- F. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.
- G. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136, or approved alternatives, shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

- H. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:
 - 1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation
 - 2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:
 - a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
 - b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements
 - c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures
 - 3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively
 - 4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency
 - 5. The individuals described in one through four above may designate an authorized representative if:
 - a. The authorization is submitted to King County in writing
 - b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency

GENERAL DISCHARGE LIMITATIONS

Operating criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-477-5300.

Corrosive substances

Limits	
Maximum:	pH 12.0 (s.u.)
Instantaneous minimum:	pH 5.0 (s.u.)
Daily minimum:	pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Dischargers of polar FOG (oil and grease from animal and/or vegetable origin) shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Nonpolar FOG limit: 100 mg/L

The limit for nonpolar FOG is violated when the arithmetic mean of the concentration of three grab samples, taken no more frequently than at five minute intervals, or when the results of a composite sample exceed the limitation.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams

with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5 percent nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

Petroleum	Maximum Concentration
Compounds	ppm (mg/L)
Benzene	0.07
Ethylbenzene	1.7
Toluene	1.4
Total xylenes	2.2

Heavy metals/cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L) ¹	Daily Average ppm (mg/L) ²
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

¹ The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

² The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

High temperature

The industrial user shall not discharge material with a temperature in excess of 65° C (150° F).

Hydrogen sulfide

Atmospheric hydrogen sulfide: 10.0 ppm (As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Settleable solids

Settleable solids concentrations: 7.0 ml/L

GENERAL CONDITIONS

- A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.
- B. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.
- C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any changes that will cause the violation of the effluent limitations specified herein will not be allowed.
- D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:
 - 1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
 - Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
 - 3. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.
- E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of the discharge authorization or the resulting liability for failure to comply.
- F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.
- G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.
- H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator:

Dana Heinz

Date: August 27, 2015



Ductorf Monor

Industrial Waste Program Self-Monitoring Report

Send to: King County Industrial Waste Program 201 S. Jackson Street, Suite 513 Seattle, WA 98104-3855 Phone 206-477-5300 / FAX 206-263-3001 Email: info.KCIW@kingcounty.gov

Authorization No.: 996-01

Project	name:
Project	Location

n: 5210 E Lake Sammamish Parkway Se, Issaquah

BMC Issaquah - PCS Excavation Construction Project

Sample Date	рН (s.u.)	Settleable Solids (mL/L)	Nonpolar FOG (mg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	Lead, total (mg/L)	Max. flowrate (gallons per min.)	Discharge Volume (gallons)	Name or initials of person collecting and recording samples and volume each day. If permitted for relief only, explain why you did not discharge to surface water for each day of discharge.
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The authorization holder is responsible for monitoring the discharge in accordance with the monitoring requirements specified in King County Discharge Authorization No. **996-01**. This report form must be completed, signed, and submitted to KCIW by **December 15, 2015**.

Your King County Industrial Waste Program Contact: Dana Heinz, 206-477-5457



Requested Disposal Facility:	4178 Roosevelt Re		Waste Profile #			
Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.						
I. Generator Information					<i>#</i> :	······································
Generator Name: BMC We	est Corporation					
Generator Site Address:	5210 East Lake Sa	mmamish Parkway	Southeas	t		
City: Issaquah	County: King	g	State: W	ashington	Zip: 98029	
State ID/Reg No:	State Approv	al/Waste Code:		(if ap	plicable)	NAICS # :
Generator Mailing Address ((if different): 🖌 720) Park Boulevard #2	00			
City: Boise	County:		State: Id	laho		Zip: 83712
Generator Contact Name: N	like Da Dalto			Email: M	lichael.D	aDaito@Buildwith BMO
Phone Number: (425) 657-	4013	Ext:	Fax Num	nber: (425)	557-006	66
II. Billing Information						
Bill To: Clearcreek Contract	ors		Contact	Name: Kim	Curnett	
Billing Address: 3919 88th S	St NE			Email: K	im@clea	rcreekcon.com
City: Marysville	State: WA		Zip: 9827	70	Phone:	(360) 659-2459
III. Waste Stream Infor Name of Waste: Petroleum	mation contaminated soil					
Process Generating Waste:						
Leaking underground storag	e tanks					
Type of Waste:		PROCESS WASTE	POL	LUTION CO	ONTROL	WASTE
Physical State: SOLID SEMI-SOLID POWDER LIQUID						
Method of Shipment:					* ***	
Estimated Annual Volume:	1,000	Ton	5			
Frequency: I ONE TIME ONGOING						
Disposal Consideration:		SOLIDIFICATION	BIC	REMEDIA	ΓΙΟΝ	
IV. Representative San	nple Certificatio	on 🗌				
collected in accordance with	U.S. EPA 40 CFR	e unis profile and lat 261.20(c) guidelines	oratory an or equiva	naiysis, alent rules?		YES or NO
Type of Sample: COMPOSITE SAMPLE						

Г

Sample Date: 04/29/13

26 soil samples were collected as part of a remedial investigation

Page 1 of 2

© Republic Services, April 2013



			L.	Wa	ste Pro	file #		
V. Physica	al Characteristics of	Waste						
Characteristic	Components			% by Weight (range)			
1. Gasoline ran	ge hydrocarbons	· · · · · · · · · · · · · · · · · · ·		<3 ppm to 2.80	0 ppm			
Z. Soll	·······			100%				
<u>J.</u>								
5								
Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	DH:	Flash Point			
Gray	Slight hydrocarbon	YES or NO	100	NA		NA	° ~	
Attach La	aboratory Analytical Re Re	port (and/or Material Safety Data guired Parameters Provided for	Sheet) Incl	uding Chain	of Cus	tody and	<u>г</u>	
Doos this waste			uns Fronte		1			
Herbicides: Chio 2,4,5-TP Silvex a	or generating process cont ordane, Endrin, Heptachlor (as defined in 40 CFR 261.3	ain regulated concentrations of the folic and its epoxides), Lindane, Methoxych 3?	wing Pesticid lor, Toxaphen	es and/or e, 2,4-D, or		es or 🚺	lo	
Does this waste ppm)[reference 4	Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?						lo	
Does this waste Part 761?	Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Yes or No						lo	
Does this waste including RCRA	Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?						o	
Does this waste	exhibit a Hazardous Charac	cteristic as defined by Federal and/or S	tate regulatior	18?	Yes or No			
Does this waste other dioxin as d	Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any Other dioxin as defined in 40 CFR 261.31?						0	
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?						s or 🔽 N	0	
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?						Yes or No		
Is this waste a reactive or heat generating waste?						0		
Does the waste contain sulfur or sulfur by-products?						0		
Is this waste generated at a Federal Superfund Clean Up Site?						0		
Is this waste from a TSD facility, TSD like facility or consolidator?						s or 🔽 N	0	
VI. Certifica	ition				*			
I nereby certify the description of the Results/Material	hat to the best of my knowle waste material being offer Safety Data Sheets submitt	dge and belief, the information contain ad for disposal and all known or suspect ad are truthful and complete and are re	ed herein is a ted hazards h presentative	true, complete have been discl of the waste.	and acc osed. A	urate II Analytica	al	

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc. PAUL S. STREET

Chief Administrative Officer	BMC West Corporation
Authorized Representative Name And Title (Type or Print)	Company Name
Dester	7-8-16
Authorized Representative Signature	Date



Certification of UST Corrective Action

The waste described on the attached profile sheet is subject to the UST corrective action regulations under 40 CFR Part 280. Furthermore, 40 CFR 261.4(b)(10) states that petroleum contaminated media and debris that fails the tests for TLCP (D018 through D043) and is subject to UST corrective action regulations under 40 CFR 280 are not considered hazardous waste.

EAST LAKE SAMMAMISH PARKWAY SE SITE ADDRESS 5210

7.8-15

Generator Signature, Title

Appendix H – Remedial Action Analytical Results







July 22, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 20th, 4 samples were received by our laboratory and assigned our laboratory project number EV15070089. The project was identified as your 1099.25. 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

Page 1
ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 SP-1		DA COLL WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: DATE RECEIVED: COLLECTION DATE: WDOE ACCREDITATION:		7/22/2015 EV15070089 EV15070089-01 07/20/2015 7/20/2015 2:25:00 PM C601	
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS 4	ANALYSIS AN DATE	ALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB
SURROGATE	METHOD	%REC			ļ	ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	101				07/20/2015	PAB
TFT	EPA-8021	110				07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS					
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	DATE: 7/22/2015 _S JOB#: EV15070089 AMPL F#: EV15070089-02			
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25	Jon Einarsen 1099.25		ATE RECEIVED: LECTION DATE:	07/20/20 7/20/201	07/20/2015 7/20/2015 2:30:00 PM		
CLIENT SAMPLE ID	3F-2	SAMPLE	DATA RESULTS	JOREDITATION.	001			
	METHOD	PESIIITS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY	
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB	
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB	
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB	
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB	
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY	
TFT	NWTPH-GX	97.4				07/20/2015	PAB	
TFT	EPA-8021	107				07/20/2015	PAB	

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36		DATE: 7/22/2015 ALS JOB#: EV15070089 ALS SAMPLE#: EV15070089-03			
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25		D/ COLI WDOE A(ATE RECEIVED: LECTION DATE:	07/20/2015 7/20/2015 2:35:00 PM		М
	SF-3	SAMPLE	DATA RESULTS	CREDITATION.	0001		
	METHOD	DESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	91.1				07/20/2015	PAB
TFT	EPA-8021	103				07/20/2015	PAB

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-1		D/ COLI WDOF AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION	7/22/2015 EV15070089 EV15070089-04 07/20/2015 7/20/2015 2:40:00 PM		
		SAMPLE	DATA RESULTS				
	METHOD		REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	310	30	10	MG/KG	07/21/2015	PAB
Benzene	EPA-8021	U	0.30	10	MG/KG	07/21/2015	PAB
Toluene	EPA-8021	1.2	0.50	10	MG/KG	07/21/2015	PAB
Ethylbenzene	EPA-8021	1.6	0.50	10	MG/KG	07/21/2015	PAB
Xylenes	EPA-8021	U	2.0	10	MG/KG	07/21/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/20/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/20/2015	EBS
Lead	EPA-6020	6.0	0.50	5	MG/KG	07/21/2015	RAL
						ANALYSIS AN	NALYSIS
SURROGATE	METHOD	%REC				DATE	BY
TFT 10X Dilution	NWTPH-GX	172 GS2				07/21/2015	PAB
TFT 10X Dilution	EPA-8021	158 GS2				07/21/2015	PAB
C25	NWTPH-DX	86.9				07/20/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit. GS2 - Surrogate outside of control limits due to dilution. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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CLIENT:	Zipper Geo Associates	DATE:	7/22/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070089
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-072015S - Batch 95401 - Soil by NWTPH-GX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072015S - Batch 95401 - Soil by EPA-8021

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115S - Batch 95446 - Soil by EPA-6020

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Lead	EPA-6020	U	0.10	1	MG/KG	07/21/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95401 - Soil by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	92.8			07/20/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	92.1	1		07/20/2015	PAB

ALS Test Batch ID: 95401 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	91.9			07/20/2015	PAB
Benzene - BSD	EPA-8021	92.4	1		07/20/2015	PAB
Toluene - BS	EPA-8021	93.7			07/20/2015	PAB
Toluene - BSD	EPA-8021	94.0	0		07/20/2015	PAB
Ethylbenzene - BS	EPA-8021	95.7			07/20/2015	PAB
Ethylbenzene - BSD	EPA-8021	95.9	0		07/20/2015	PAB
Xylenes - BS	EPA-8021	97.8			07/20/2015	PAB
Xylenes - BSD	EPA-8021	98.5	1		07/20/2015	PAB

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS

ALS Test Batch ID: 95446 - Soil by EPA-6020

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
Lead - BS	EPA-6020	98.4			07/21/2015	RAL
Lead - BSD	EPA-6020	97.4	1		07/21/2015	RAL

APPROVED BY

7/22/2015

C601

EV15070089

Laboratory Director

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Политист Отрантист Отранtuct Otpantuct Otpantuct <t< th=""><th>Frone (425) 3 Phone (425) 3 Fax (425) 3</th><th>8208 356-2600 356-2626</th><th>-</th><th></th><th>Labo</th><th>rato</th><th>2</th><th>Inal</th><th>/SIS</th><th>He</th><th>ant</th><th>ž</th><th></th><th>,</th><th></th><th>$\widetilde{\mathbb{U}}$</th><th>120</th><th>Soc</th><th>080</th></t<>	Frone (425) 3 Phone (425) 3 Fax (425) 3	8208 356-2600 356-2626	-		Labo	rato	2	Inal	/SIS	He	ant	ž		,		$\widetilde{\mathbb{U}}$	120	Soc	080
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7. 2. 8 8 9 10. 10. 10. 10. 10. 10. 10. 10. 10. 11. 10.	6.					-													
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July 22, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 21st, 9 samples were received by our laboratory and assigned our laboratory project number EV15070096. The project was identified as your 1099.25. 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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Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-2	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/22/201 EV15070 EV15070 07/21/20 7/21/201 C601	5)096)096-01 15 5 7:20:00 A	M
	SAMPLE	DATA RESULTS				
METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS A	ANALYSIS AN DATE	IALYSIS BY
NWTPH-GX	5.8	3.0	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
METHOD	%REC			ļ	ANALYSIS AN DATE	IALYSIS BY
NWTPH-GX	121				07/22/2015	PAB
EPA-8021	119				07/22/2015	PAB
NWTPH-DX	77.6				07/22/2015	EBS
	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-2 METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 NWTPH-DX NWTPH-DX NWTPH-DX	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-2 SAMPLE METHOD RESULTS NWTPH-GX 5.8 EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U NWTPH-DX U NWTPH-DX U NWTPH-GX 121 EPA-8021 119 NWTPH-DX 77.6	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen D/ 1099.25 COLI 1099-2 WDOE AC SAMPLE DATA RESULTS REFORTING NWTPH-GX 5.8 NWTPH-GX 5.8 EPA-8021 U 0.050 0.050 EPA-8021 U NWTPH-DX 0.20 NWTPH-DX 0 NWTPH-GX 5.8 Image: State Sta	Zipper Geo Associates DATE: 19023 - 36th Ave W., Suite D ALS JOB#: Lynnwood, WA 9803 ALS SAMPLE#: Jon Einarsen DATE RECEIVED: 1099.25 COLLECTION DATE: 1099.25 WDOE ACCREDITATION: 1099.2 SAMPLE DATA RESULTS RESULTS NWTPH-GX 5.8 3.0 1 EPA-8021 U 0.030 EPA-8021 U 0.050 NWTPH-DX U 1 NWTPH-DX U 1 NWTPH-DX 1 1 NWTPH-DX 121 1 EPA-8021 119 1 NWTPH-DX 77.6 1	Zipper Geo Associates DATE: 7/22/201 19023 - 36th Ave W., Suite D ALS JOB#: EV15070 Lynnwood, WA 98036 ALS SAMPLE#: EV15070 Jon Einarsen DATE RECEIVED: 07/21/201 1099.25 COLLECTION DATE: 7/21/201 1099.25 WDOE ACCREDITATION: C601 1099.2 WDOE ACCREDITATION: C601 EXAMPLE DATA RESULTS METHOD RESULTS NWTPH-GX 5.8 3.0 1 MG/KG EPA-8021 U 0.0300 1 MG/KG EPA-8021 U 0.0500 1 MG/KG REPA-8021 U 0.0500 1 MG/KG NWTPH-DX U 25 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-GX 121 EPA-8021 10 MC/KG NWTPH-DX 77.6 1 MC/KG 1	Zipper Geo Associates DATE: 7/22/2015 19023 - 36th Ave W., Suite D ALS JOB#: EV15070096 Lynnwood, WA 98036 ALS SAMPLE#: EV15070096-01 Jon Einarsen DATE RECEIVED: 07/21/2015 1099.25 COLLECTION DATE: 7/21/2015 1099-2 WDOE ACCREDITATION: C601 EXPRENDIATE SULTS METHOD RESULTS NWTPH-GX 5.8 3.0 1 MG/KG 07/22/2015 EPA-8021 U 0.030 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 NWTPH-DX U 0.20 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 </td

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/22/20 EV1507 EV1507	15 70096 70096-02	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 1099-3		D/ COLI WDOF AC	ATE RECEIVED: LECTION DATE:	07/21/2 7/21/20 C601	015 15 7:30:00 A	۹M
	1000 0	SAMPLE	DATA RESULTS		0001		
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AI DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	4.5	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS A	
SURROGATE	METHOD	%REC				DATE	ы
TFT	NWTPH-GX	116				07/22/2015	PAB
TFT	EPA-8021	118				07/22/2015	PAB
C25	NWTPH-DX	89.3				07/22/2015	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.

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-4	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/22/201 EV1507 EV1507 07/21/201 7/21/201 C601	15 0096 0096-03 015 15 8:50:00 A	M
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	ALYSIS
SURROGATE	METHOD	%REC				DATE	BY
TFT	NWTPH-GX	122				07/22/2015	PAB
TFT	EPA-8021	124				07/22/2015	PAB
C25	NWTPH-DX	90.5				07/22/2015	EBS

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	CERTIFIC	ATE OF ANALYSIS				
Zipper Geo Associ 19023 - 36th Ave \ Lynnwood, WA 98	iates <i>N</i> ., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/22/20 EV1507 EV1507	15 70096 70096-04	
Jon Einarsen		D.	ATE RECEIVED:	07/21/2	015	
1099.25		COL	LECTION DATE:	7/21/20	15 10:10:00	AM
1099-5		WDOE AG	CCREDITATION:	C601		
	SAMPLE	DATA RESULTS				
METHOD		REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	NALYSIS BY
NWTPH-GX	6.5	3.0	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
					ANALYSIS AN	NALYSIS
METHOD	%REC				DATE	BY
NWTPH-GX	118				07/22/2015	PAB
EPA-8021	120				07/22/2015	PAB
NWTPH-DX	79.7				07/22/2015	EBS
	Zipper Geo Associ 19023 - 36th Ave A Lynnwood, WA 98 Jon Einarsen 1099.25 1099-5 METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 NWTPH-DX NWTPH-DX NWTPH-DX	CERTIFIC.Zipper Geo Associates19023 - 36th Ave W., Suite DLynnwood, WA 98036Jon Einarsen1099.251099-5SAMPLEMETHODRESULTSNWTPH-GX6.5EPA-8021UEPA-8021UEPA-8021UEPA-8021UNWTPH-DXUNWTPH-DXNWTPH-DXNWTPH-GX118EPA-8021120NWTPH-DX79.7	METHOD RESULTS 3.0 EPA-8021 U 0.050 EPA-8021 U 0.50 EPA-8021 U 0.50 EPA-8021 U 0.50 EPA-8021 U 50	Zipper Geo Associates DATE: 19023 - 36th Ave W., Suite D ALS JOB#: Lynnwood, WA 98036 ALS SAMPLE#: Jon Einarsen DATE RECEIVED: 1099.25 COLLECTION DATE: 1099.5 WDOE ACCREDITATION: EEPORTING DILUTION METHOD RESULTS NWTPH-GX 6.5 3.0 1 EPA-8021 U 0.030 1 EPA-8021 U 0.050 1 NWTPH-DX U 25 1 NWTPH-DX U 50 1 NWTPH-DX U 50 1 EPA-8021 U 0.20 1 NWTPH-DX U 25 1 NWTPH-DX U 50 1 NWTPH-GX 118 EPA-8021 120 NWTPH-DX 79.7 7	Zipper Geo Associates DATE: 7/22/20 19023 - 36th Ave W., Suite D ALS JOB#: EV1507 Lynnwood, WA 98036 ALS SAMPLE#: EV1507 Jon Einarsen DATE RECEIVED: 07/21/20 J099.5 WDOE ACCREDITATION: C601 EXAMPLE DATA RESULTS 1099.5 WDOE ACCREDITATION: C601 EXAMPLE DATA RESULTS METHOD RESULTS DILUTION UNITS NWTPH-GX 6.5 3.0 1 MG/KG EPA-8021 U 0.030 1 MG/KG EPA-8021 U 0.050 1 MG/KG NWTPH-DX U 25 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-GX 118 EPA-8021 120 MG/KG NWTPH-DX 79.7 79.7 1 1	Zipper Geo Associates DATE: 7/22/2015 19023 - 36th Ave W., Suite D ALS JOB#: EV15070096 Lynnwood, WA 98036 ALS SAMPLE#: EV15070096-04 Jon Einarsen DATE RECEIVED: 07/21/2015 1099.25 COLLECTION DATE: 7/21/2015 1099.5 WDOE ACCREDITATION: C601 KEPORTING LIMITS DILUTION ATE: NWTPH-GX 6.5 3.0 1 MG/KG 07/22/2015 EPA-8021 U 0.030 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 NWTPH-DX U 0.25 1 MG/KG 07/22/2015 NWTPH-DX U 0.25 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-GX

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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Zipper Geo Associ 19023 - 36th Ave \ Lynnwood, WA 98	iates <i>N</i> ., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/22/20 ⁻ EV1507 EV1507	15 0096 0096-05	
Jon Einarsen		D	ATE RECEIVED:	07/21/2	015	
1099.25		COL	LECTION DATE:	7/21/20	15 11:10:00	AM
1099-6		WDOE AG	CCREDITATION:	C601		
	SAMPLE	DATA RESULTS				
METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
NWTPH-GX	4.8	3.0	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
					ANALYSIS AN	
METHOD	%REC				DATE	Bĭ
NWTPH-GX	129				07/22/2015	PAB
EPA-8021	132				07/22/2015	PAB
NWTPH-DX	68.6				07/22/2015	EBS
	Zipper Geo Associ 19023 - 36th Ave M Lynnwood, WA 98 Jon Einarsen 1099.25 1099-6 METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 EPA-8021 NWTPH-DX NWTPH-DX NWTPH-DX	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-6 SAMPLE METHOD RESULTS NWTPH-GX 4.8 EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U NWTPH-DX U NWTPH-DX U METHOD %REC NWTPH-GX 129 EPA-8021 132 NWTPH-DX 68.6	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen D. 1099.25 COL 1099-6 WDOE AC SAMPLE DATA RESULTS REPORTING NWTPH-GX 4.8 NWTPH-GX 4.8 PA-8021 U 0.050 EPA-8021 EPA-8021 U 0.050 EPA-8021 U 0.050 EPA-8021 U 0.050 EPA-8021 U 0.20 NWTPH-DX U Sol Sol	Zipper Geo Associates DATE: 19023 - 36th Ave W., Suite D ALS JOB#: Lynnwood, WA 98036 ALS SAMPLE#: Jon Einarsen DATE RECEIVED: 1099.25 COLLECTION DATE: 1099.6 WDOE ACCREDITATION: SAMPLE DATA RESULTS METHOD RESULTS DILUTION NWTPH-GX 4.8 3.0 1 EPA-8021 U 0.030 1 EPA-8021 U 0.050 1 IDATE U 0.050 1 EPA-8021 U 0.20 1 NWTPH-DX U 25 1 NWTPH-DX U 50 1 NWTPH-DX U 50 1 NWTPH-DX 129 1 1 EPA-8021 132 NWTPH-DX 56.6	Zipper Geo Associates DATE: 7/22/20 19023 - 36th Ave W., Suite D ALS JOB#: EV1507 Lynnwood, WA 98036 ALS SAMPLE#: EV1507 Jon Einarsen DATE RECEIVED: 07/21/20 1099.25 COLLECTION DATE: 7/21/20 1099-6 WDOE ACCREDITATION: C601 KETHOD RESULTS NWTPH-GX 4.8 3.0 1 MG/KG EPA-8021 U 0.030 1 MG/KG EPA-8021 U 0.050 1 MG/KG NWTPH-DX U 0.20 1 MG/KG NWTPH-DX U 50 1 MG/KG PA-8021 U 0.20 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX 132 NWTPH-DX 568.6 1	Zipper Geo Associates DATE: 7/22/2015 19023 - 36th Ave W., Suite D ALS JOB#: EV15070096 Lynnwood, WA 98036 ALS SAMPLE#: EV15070096-05 Jon Einarsen DATE RECEIVED: 07/21/2015 1099.25 COLLECTION DATE: 7/21/2015 11:10:00 1099-6 WDOE ACCREDITATION: C601 METHOD RESULTS METHOD RESULTS SAMPLE DATA RESULTS UNITS ANALYSIS AN DATE NWTPH-GX 4.8 3.0 1 MG/KG 07/22/2015 EPA-8021 U 0.030 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 EPA-8021 U 0.050 1 MG/KG 07/22/2015 EPA-8021 U 0.20 1 MG/KG 07/22/2015 NWTPH-DX U 25 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50 1 MG/KG 07/22/2015 NWTPH-DX U 50

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36		DATE: ALS JOB#: ALS SAMPLE#:	7/22/20 ² EV1507 EV1507	15 0096 0096-06	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 1099-7		D COL WDOE AG	ATE RECEIVED: LECTION DATE: CCREDITATION:	07/21/20 7/21/20 C601)15 I5 1:05:00 P	M
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	7.1	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY
TFT	NWTPH-GX	108				07/22/2015	PAB
TFT	EPA-8021	108				07/22/2015	PAB

Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

Page 7 ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 **PHONE** 425-356-2600 ALS Laboratory Group A Campbell Brothers Limited Company

FAX 425-356-2626



CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-8	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/22/20 EV1507 EV1507 07/21/20 7/21/20 C601	15 0096 0096-07 015 15 2:40:00 F	PM
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	ВТ
TFT	NWTPH-GX	115				07/22/2015	PAB
TFT	EPA-8021	115				07/22/2015	PAB
C25	NWTPH-DX	87.2				07/22/2015	EBS

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-9	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION	7/22/201 EV1507 EV1507 07/21/20 7/21/20 C601	15 0096 0096-08 015 15 3:50:00 P	٩
		SAMPLE	DATA RESULTS				
ANAI YTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	26	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	52	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	ALYSIS
SURROGATE	METHOD	%REC				DATE	ВҮ
TFT	NWTPH-GX	84.6				07/22/2015	PAB
TFT	EPA-8021	93.7				07/22/2015	PAB
C25	NWTPH-DX	91.2				07/22/2015	EBS

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/22/20 EV1507 EV1507	15 70096 70096-09	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 SP-4			ATE RECEIVED: LECTION DATE:	07/21/2 7/21/20 C601	015 15 3:35:00 P	'M
		SAMPLE	DATA RESULTS	OREBHARION.	0001		
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	58	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	Bĭ
TFT	NWTPH-GX	99.7				07/22/2015	PAB
TFT	EPA-8021	110				07/22/2015	PAB
C25	NWTPH-DX	92.8				07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains lube oil.

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CLIENT:	Zipper Geo Associates	DATE:	7/22/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070096
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-072015S - Batch 95401 - Soil by NWTPH-GX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072015S - Batch 95401 - Soil by EPA-8021

			REPORTING	DILUTION		ANALYSIS /	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

			REPORTING	DILUTION		ANALYSIS /	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95401 - Soil by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	92.8			07/20/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	92.1	1		07/20/2015	PAB

ALS Test Batch ID: 95401 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	91.9			07/20/2015	PAB
Benzene - BSD	EPA-8021	92.4	1		07/20/2015	PAB
Toluene - BS	EPA-8021	93.7			07/20/2015	PAB
Toluene - BSD	EPA-8021	94.0	0		07/20/2015	PAB
Ethylbenzene - BS	EPA-8021	95.7			07/20/2015	PAB
Ethylbenzene - BSD	EPA-8021	95.9	0		07/20/2015	PAB
Xylenes - BS	EPA-8021	97.8			07/20/2015	PAB
Xylenes - BSD	EPA-8021	98.5	1		07/20/2015	PAB

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS

APPROVED BY

7/22/2015

C601

EV15070096

Laboratory Director

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ALS Environmental 8620 Holly Drive, Everett, WA 9820 Phone (425) 356-	Suite 100)8 .2600			Labc	Chai	n Of V An	Cust alysi	tody/ s Re	due	ž				ALS JOD#	204 J	aboratory L	Jse Only	
ALS) Fax (425) 356 http://ww	-2626 w.alsglobal.c	com									Date	7/21	<u>S</u>	Page	-		_	
PROJECT ID: 1099.25					ANALYSI	S REQ(JESTED						10TH	ER (Spe	ecify)			
REPORT TO 26A COMPANY: 26A											[·						
PROJECT Jon Ein	arsen						<u> </u>			VIS 022	_ חאר _		n Lieun					
ADDRESS:									0228	8-A93			1150-					č
								8260	3 A93 -	. (d (H)								NOL
PHONE:	FAX:						3560 60 🗌	y EPA	λq spi	49) en			04-011				୧ମ	LIQN
PO.# 1099.25	E-MAIL:						58-A2) WIS	unodı (I!os)	carbo	8-AA			·			JNI	00 (
INVOICE TO ZGA							∋a pλ	9260 S) 0928 100 (Hydro	ICH	(/)					/LNC	000
ATTENTION:						1208	1208 213tile	RPA 6	ganic 3 Aq3	latic		lioeq(F CC	N G
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5. 1099-6		(110		5													· ····	
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8. 1099-9		1550		8														
9. SP-4	>	1535	5	0	^			· · · · ·									\rightarrow	
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SPECIAL INSTRUCTIONS								1 						· ·				
SIGNATURES (Name, Company	v, Date, Tin	je): Te l	1							TURI	IAROL	IND RE	EQUEST	ED in Bu	Isiness	Days*		
1. Relinquished By:	107	X X X X X X X X X X X X X X X X X X X	1111 165	20			Orgar 10	nic, Meta	als & Inc	2	Analy Sen L	N N N	Spe	cify:	OTHI	Ë		
2. Relinquished By:							Standard	iels & Hy	/drocart	An An	alysis							
Received By:									0	ž K	LAY I							

*Turnaround request less than standard may incur Rush Charges

Received By:



July 23, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 22nd, 7 samples were received by our laboratory and assigned our laboratory project number EV15070104. The project was identified as your 1099.25. 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

Page 1 ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 PHONE 425-356-2600 ALS Laboratory Group A Campbell Brothers Limited Company



Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE:	7/23/201 EV15070 EV15070 07/22/20 7/22/201 C601	5 0104 0104-01 15 5 8:00:00 A	M
1000 10	SAMPLE	DATA RESULTS		0001		
METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR		ANALYSIS AN DATE	IALYSIS BY
NWTPH-GX	5.6	3.0	1	MG/KG	07/23/2015	PAB
EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
METHOD	%RFC			ļ	ANALYSIS AN DATE	IALYSIS BY
NWTPH-GX	110				07/23/2015	PAB
EPA-8021	108				07/23/2015	PAB
NWTPH-DX	86.0				07/22/2015	EBS
	Zipper Geo Associa 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-10 METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 NWTPH-DX NWTPH-DX NWTPH-DX	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-10 SAMPLE METHOD RESULTS NWTPH-GX 5.6 EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U NWTPH-DX U NWTPH-DX U NWTPH-GX 110 EPA-8021 U	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen D/ 1099.25 COLI 1099.10 WDOE AC SAMPLE DATA RESULTS REPORTING NWTPH-GX 5.6 NWTPH-GX 3.0 EPA-8021 U 0.030 EPA-8021 U 0.050 EPA-8021 U 5.0 NWTPH-DX U 50	Zipper Geo Associates DATE: 19023 - 36th Ave W., Suite D ALS JOB#: Lynnwood, WA 98036 ALS SAMPLE#: Jon Einarsen DATE RECEIVED: 1099.25 COLLECTION DATE: 1099.10 WDOE ACCREDITATION: REPORTING DILUTION METHOD RESULTS DILUTION NWTPH-GX 5.6 3.0 1 EPA-8021 U 0.030 1 EPA-8021 U 0.050 1 EPA-8021 U 0.050 1 EPA-8021 U 0.20 1 NWTPH-DX U 25 1 NWTPH-DX U 50 1 EPA-8021 10 1 1 EPA-8021 U 0.20 1 NWTPH-DX U 50 1 NWTPH-DX 108 1 1 EPA-8021 108 1 1 NWTPH-DX 86.0 1 1	Zipper Geo Associates DATE: 7/23/201 19023 - 36th Ave W., Suite D ALS JOB#: EV15070 Lynnwood, WA 98036 ALS SAMPLE#: EV15070 Jon Einarsen DATE RECEIVED: 07/22/201 1099.25 COLLECTION DATE: 7/22/201 1099.10 WDOE ACCREDITATION: C601 SAMPLE DATA RESULTS REPORTING DILUTION DATE: 7/22/201 NWTPH-GX 5.6 3.0 1 MG/KG EPA-8021 U 0.030 1 MG/KG EPA-8021 U 0.050 1 MG/KG EPA-8021 U 0.050 1 MG/KG RENDE U 0.050 1 MG/KG EPA-8021 U 0.20 1 MG/KG NWTPH-DX U 25 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX U 50 1 MG/KG NWTPH-DX 108 1 MG/	Zipper Geo Associates DATE: 7/23/2015 19023 - 36th Ave W., Suite D ALS JOB#: EV15070104 Lynnwood, WA 98036 ALS SAMPLE#: EV15070104-01 Jon Einarsen DATE RECEIVED: 07/22/2015 8:00:00 A 1099.25 COLLECTION DATE: 7/22/2015 8:00:00 A 1099-10 WDOE ACCREDITATION: C601 EXPRENDE DATA RESULTS METHOD RESULTS NWTPH-GX 5.6 3.0 1 MG/KG 07/23/2015 EPA-8021 U 0.030 1 MG/KG 07/23/2015 EPA-8021 U 0.050 1 MG/KG 07/23/2015 EPA-8021 U 0.050 1 MG/KG 07/23/2015 EPA-8021 U 0.050 1 MG/KG 07/23/2015 NWTPH-DX U 0.20 1 MG/KG 07/23/2015 NWTPH-DX U 50 1 MG/KG 07/23/2015 NWTPH-DX U 50 1 MG/KG 07/23/2015 NWTPH-DX U

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave \ Lynnwood, WA 98	iates <i>N</i> ., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/23/20 EV1507 EV1507	15 70104 70104-02	
CLIENT CONTACT:	Jon Einarsen		D	ATE RECEIVED:	07/22/2	015	
CLIENT PROJECT:	1099.25		COL	LECTION DATE:	7/22/20	15 8:05:00 /	٩M
CLIENT SAMPLE ID	1099-11		WDOE A	CCREDITATION:	C601		
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	7.8	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	0.031	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	0.18	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS A	
SURROGATE	METHOD	%REC				DATE	DI
TFT	NWTPH-GX	103				07/23/2015	PAB
TFT	EPA-8021	102				07/23/2015	PAB

C25

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

94.4

NWTPH-DX

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07/22/2015

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-12	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/23/20 ⁻ EV1507 EV1507 07/22/20 7/22/20 C601	15 0104 0104-03 015 15 10:55:00	AM
		SAMPLE	DATA RESULTS				
ΑΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	Вĭ
TFT	NWTPH-GX	112				07/23/2015	PAB
TFT	EPA-8021	112				07/23/2015	PAB
C25	NWTPH-DX	96.2				07/22/2015	EBS

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-13	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/23/20 EV1507 EV1507 07/22/20 7/22/20 C601	15 0104 0104-04 015 15 11:35:00	AM
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	IALYSIS
SURROGATE	METHOD	%REC				DATE	BY
TFT	NWTPH-GX	106				07/23/2015	PAB
TFT	EPA-8021	106				07/23/2015	PAB
C25	NWTPH-DX	96.7				07/22/2015	EBS

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-14	ates V., Suite D 036	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	7/23/20 ⁻ EV1507 EV1507 07/22/20 7/22/20 ⁻ C601	15 0104 0104-05 015 15 11:40:00	AM
		SAMPLE	DATA RESULTS				
ΑΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/23/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/23/2015	EBS
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	ы
TFT	NWTPH-GX	113				07/23/2015	PAB
TFT	EPA-8021	112				07/23/2015	PAB
C25	NWTPH-DX	96.2				07/23/2015	EBS

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Assoc 19023 - 36th Ave V Lynnwood, WA 98	iates <i>N</i> ., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/23/20 EV1507 EV1507	15 ′0104 ′0104-06	
CLIENT CONTACT:	Jon Einarsen		D	ATE RECEIVED:	07/22/2	015	
CLIENT PROJECT:	1099.25		COL	LECTION DATE:	7/22/20	15 12:40:00	PM
CLIENT SAMPLE ID	1099-15		WDOE AG	CCREDITATION:	C601		
		SAMPLE	DATA RESULTS				
	METHOD		REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	6.0	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	51
TFT	NWTPH-GX	103				07/23/2015	PAB
TFT	EPA-8021	102				07/23/2015	PAB
C25	NWTPH-DX	92.6				07/22/2015	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.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/23/20 EV150 ⁻ EV150 ⁻)15 70104 70104-07	
CLIENT CONTACT:	Jon Einarsen		D/	ATE RECEIVED:	07/22/2	2015	
CLIENT PROJECT:	1099.25		COLI	_ECTION DATE:	7/22/20	15 12:05:00	D PM
CLIENT SAMPLE ID	1099-BT1		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS / DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	420	50	1	UG/L	07/23/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	07/23/2015	PAB
Toluene	EPA-8021	2.8	1.0	1	UG/L	07/23/2015	PAB
Ethylbenzene	EPA-8021	11	1.0	1	UG/L	07/23/2015	PAB
Xylenes	EPA-8021	20	3.0	1	UG/L	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	790	130	1	UG/L	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	470	250	1	UG/L	07/22/2015	EBS
SUBBOCATE	METHOD	W REC				ANALYSIS A	ANALYSIS BY
		%KEU				07/00/0045	
	INVV I PH-GX	94.3				07/23/2015	PAB
		104				07/23/2015	
620	NVV I PH-DX	(1.1				07/22/2015	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, weathered diesel and lube oil. Diesel range product results biased high due to gasoline range product overlap.

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CLIENT:	Zipper Geo Associates	DATE:	7/23/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070104
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-072315S - Batch 95525 - Soil by NWTPH-GX

			REPORTING	DILUTION		ANALYSIS AN	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MBG-072115W - Batch 95497 - Water by NWTPH-GX

			REPORTING	DILUTION	ANALYSIS ANALYSIS		
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/21/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072315S - Batch 95525 - Soil by EPA-8021

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115W - Batch 95497 - Water by EPA-8021

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	07/21/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072215S - Batch 95534 - Soil by NWTPH-DX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115W - Batch 95457 - Water by NWTPH-DX

			REPORTING	DILUTION	ANALYSIS ANALYSIS		
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/21/2015	EBS

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CERTIFICATE OF ANALYSIS								
CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE: ALS SDG#: WDOE ACCREDITATION:	7/23/2015 EV15070104 C601					
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25							
LABORATORY BLANK RESULTS								
MB-072115W - Batch 95457 - Water by NWTPH-DX								

250

1

UG/L

07/21/2015

EBS

U - Analyte analyzed for but not detected at level above reporting limit.

NWTPH-DX

U

TPH-Oil Range

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CLIENT:	Zipper Geo Associates	DATE:	7/23/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070104
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95525 - Soil by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	82.2			07/23/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	83.2	1		07/23/2015	PAB

ALS Test Batch ID: 95497 - Water by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	79.8			07/21/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	83.5	5		07/21/2015	PAB

ALS Test Batch ID: 95525 - Soil by EPA-8021

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
Benzene - BS	EPA-8021	90.2			07/23/2015	PAB
Benzene - BSD	EPA-8021	89.4	1		07/23/2015	PAB
Toluene - BS	EPA-8021	92.1			07/23/2015	PAB
Toluene - BSD	EPA-8021	89.4	3		07/23/2015	PAB
Ethylbenzene - BS	EPA-8021	90.4			07/23/2015	PAB
Ethylbenzene - BSD	EPA-8021	89.7	1		07/23/2015	PAB
Xylenes - BS	EPA-8021	92.3			07/23/2015	PAB
Xylenes - BSD	EPA-8021	91.7	1		07/23/2015	PAB

ALS Test Batch ID: 95497 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	95.2			07/21/2015	PAB
Benzene - BSD	EPA-8021	97.8	3		07/21/2015	PAB
Toluene - BS	EPA-8021	96.2			07/21/2015	PAB
Toluene - BSD	EPA-8021	98.1	2		07/21/2015	PAB
Ethylbenzene - BS	EPA-8021	96.6			07/21/2015	PAB
Ethylbenzene - BSD	EPA-8021	99.7	3		07/21/2015	PAB
Xylenes - BS	EPA-8021	98.1			07/21/2015	PAB
Xylenes - BSD	EPA-8021	102	4		07/21/2015	PAB

ALS Test Batch ID: 95534 - Soil by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	112			07/23/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	104	8		07/23/2015	EBS

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CLIENT:	Zipper Geo Associates
	19023 - 36th Ave W., Suite D
	Lynnwood, WA 98036
CLIENT CONTACT:	Jon Einarsen
CLIENT PROJECT:	1099.25

DATE: ALS SDG#: WDOE ACCREDITATION:

7/23/2015 EV15070104 C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95457 - Water by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	93.4			07/21/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	93.3	0		07/21/2015	EBS

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Everett, UA 98208 Phone (425) 356-2 Fax (425) 356-2	1600 1600		Labo	rato	ry ⊿	vnal	ysis	, Be	nþ	sst				U	S	Ś	Č	0	HC HC	
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July 29, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 24th, 3 samples were received by our laboratory and assigned our laboratory project number EV15070121. The project was identified as your 1099.25. 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

Page 1
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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-16		D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: DATE RECEIVED: COLLECTION DATE: WDOE ACCREDITATION:			7/29/2015 EV15070121 EV15070121-01 07/24/2015 7/24/2015 10:15:00 AM C601		
		SAMPLE	DATA RESULTS						
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY		
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/27/2015	DLC		
Benzene	EPA-8021	U	0.030	1	MG/KG	07/27/2015	DLC		
Toluene	EPA-8021	U	0.050	1	MG/KG	07/27/2015	DLC		
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/27/2015	DLC		
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/27/2015	DLC		
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/24/2015	EBS		
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/24/2015	EBS		
SURROGATE	METHOD	%REC			,	ANALYSIS ANALYSIS DATE BY			
TFT	NWTPH-GX	105				07/27/2015	DLC		
TFT	EPA-8021	99.0				07/27/2015	DLC		
C25	NWTPH-DX	95.7				07/24/2015	EBS		

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS					
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	7/29/2015 EV15070121 EV15070121-02			
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 1099-17		D. COL WDOE A0	ATE RECEIVED: LECTION DATE: CCREDITATION:	07/24/2 7/24/20 C601	015 15 11:20:00	AM	
		SAMPLE	DATA RESULTS					
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AI DATE	NALYSIS BY	
TPH-Volatile Range	NWTPH-GX	12	3.0	1	MG/KG	07/28/2015	DLC	
Benzene	EPA-8021	U	0.030	1	MG/KG	07/28/2015	DLC	
Toluene	EPA-8021	U	0.050	1	MG/KG	07/28/2015	DLC	
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/28/2015	DLC	
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/28/2015	DLC	
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/24/2015	EBS	
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/24/2015	EBS	
						ANALYSIS A		
SURROGATE	METHOD	%REC				DATE	ы	
TFT	NWTPH-GX	75.2				07/28/2015	DLC	
TFT	EPA-8021	66.1				07/28/2015	DLC	
C25	NWTPH-DX	99.2				07/24/2015	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.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:			
CLIENT CONTACT:	Jon Einarsen		D/	ATE RECEIVED:	07/24/2	2015	
CLIENT PROJECT:	1099.25		COLI	_ECTION DATE:	7/24/20	015 11:40:00	AM
CLIENT SAMPLE ID	1099-BT2		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
αναι γτε	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	1100	50	1	UG/L	07/26/2015	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	07/26/2015	DLC
Toluene	EPA-8021	1.1	1.0	1	UG/L	07/26/2015	DLC
Ethylbenzene	EPA-8021	11	1.0	1	UG/L	07/26/2015	DLC
Xylenes	EPA-8021	16	3.0	1	UG/L	07/26/2015	DLC
TPH-Diesel Range	NWTPH-DX	3100	130	1	UG/L	07/24/2015	EBS
TPH-Oil Range	NWTPH-DX	490	250	1	UG/L	07/24/2015	EBS
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY
TFT	NWTPH-GX	103				07/26/2015	DLC
TFT	EPA-8021	112				07/26/2015	DLC
C25	NWTPH-DX	75.4				07/24/2015	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, highly weathered diesel and lube oil. Diesel range product results biased high due to gasoline range product overlap. Oil range product results biased high due to diesel range product overlap.

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CLIENT:	Zipper Geo Associates	DATE:	7/29/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070121
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-072515S - Batch 95652 - Soil by NWTPH-GX

			REPORTING	DILUTION	ON ANALYSIS A		ALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MBG-072515W - Batch 95638 - Water by NWTPH-GX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072515S - Batch 95652 - Soil by EPA-8021

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/25/2015	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	07/25/2015	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/25/2015	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072515W - Batch 95638 - Water by EPA-8021

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Benzene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072415W2 - Batch 95608 - Water by NWTPH-DX

			REPORTING	DILUTION		ANALYSIS AN	ALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/25/2015	EBS

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CERTIFICATE OF ANALYSIS								
CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE: ALS SDG#: WDOE ACCREDITATION:	7/29/2015 EV15070121 C601					
CLIENT PROJECT:	1099.25							
LABORATORY BLANK RESULTS								
MB-072415W2 - Batch 95608 - Water by NWTPH-DX								

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UG/L

07/25/2015

EBS

U - Analyte analyzed for but not detected at level above reporting limit.

NWTPH-DX

U

TPH-Oil Range

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FAX 425-356-2626



CLIENT:	Zipper Geo Associates	DATE:	7/29/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15070121
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95652 - Soil by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	95.1			07/25/2015	DLC
TPH-Volatile Range - BSD	NWTPH-GX	95.7	1		07/25/2015	DLC

ALS Test Batch ID: 95638 - Water by NWTPH-GX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Volatile Range - BS	NWTPH-GX	78.7			07/25/2015	DLC
TPH-Volatile Range - BSD	NWTPH-GX	85.2	8		07/25/2015	DLC

ALS Test Batch ID: 95652 - Soil by EPA-8021

				• ••••	ANALYSIS	
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	Bĭ
Benzene - BS	EPA-8021	101			07/25/2015	DLC
Benzene - BSD	EPA-8021	99.5	2		07/25/2015	DLC
Toluene - BS	EPA-8021	102			07/25/2015	DLC
Toluene - BSD	EPA-8021	102	0		07/25/2015	DLC
Ethylbenzene - BS	EPA-8021	104			07/25/2015	DLC
Ethylbenzene - BSD	EPA-8021	104	0		07/25/2015	DLC
Xylenes - BS	EPA-8021	104			07/25/2015	DLC
Xylenes - BSD	EPA-8021	104	0		07/25/2015	DLC

ALS Test Batch ID: 95638 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	98.6			07/25/2015	DLC
Benzene - BSD	EPA-8021	99.6	1		07/25/2015	DLC
Toluene - BS	EPA-8021	97.5			07/25/2015	DLC
Toluene - BSD	EPA-8021	99.0	2		07/25/2015	DLC
Ethylbenzene - BS	EPA-8021	97.6			07/25/2015	DLC
Ethylbenzene - BSD	EPA-8021	98.2	1		07/25/2015	DLC
Xylenes - BS	EPA-8021	101			07/25/2015	DLC
Xylenes - BSD	EPA-8021	102	1		07/25/2015	DLC

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS

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CLIENT:	Zipper Geo Associates
	I vnnwood WA 98036
CLIENT CONTACT:	Jon Einarsen
CLIENT PROJECT:	1099.25

DATE: ALS SDG#: WDOE ACCREDITATION:

7/29/2015 EV15070121 C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95608 - Water by NWTPH-DX

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
TPH-Diesel Range - BS	NWTPH-DX	100			07/24/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	1		07/24/2015	EBS

APPROVED BY

Laboratory Director

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	SIGNATURES (Name Company, Date, Time): Relinquished By: $2BA \frac{1-14-15}{2} \frac{1505}{2} \frac{1505}{2}$, $\frac{10}{5} \frac{5}{3} \frac{3}{2} \frac{2}{1} \frac{1}{50}$ Specify: OTHER: Received By: $2BA \frac{1-14-15}{2} \frac{1505}{2} \frac{1505}{2} \frac{10}{5} \frac{5}{3} \frac{3}{2} \frac{2}{1} \frac{10}{50}$ Specify: Specify: Received By: $2BA \frac{1-14-15}{2} \frac{1505}{2} \frac{1505}{2} \frac{10}{5} \frac{5}{5} \frac{3}{2} \frac{2}{1} \frac{10}{50} \frac{10}{5} \frac{5}{2} \frac{3}{2} \frac{2}{1} \frac{10}{50} \frac{10}{5} \frac{10}{5$	SPECIAL INSTRUCTIONS																				
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September 11, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 10th, 4 samples were received by our laboratory and assigned our laboratory project number EV15090062. The project was identified as your 1099.25. 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

Page 1
ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626



CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-18	ates V., Suite D 036	D. COL WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	9/11/201 EV15090 EV15090 09/10/20 9/10/201 C601	5 0062 0062-01 15 5 9:15:00 A	.M
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	5.0	0.50	5	MG/KG	09/11/2015	RAL
SUPPOCATE	METHOD	% PEC				ANALYSIS AN DATE	IALYSIS BY
TET		08 /				00/10/2015	DAR
TET		90. 4 05 1				09/10/2015	
C25	NWTPH-DX	103				09/10/2015	FBS
						55, 15/2010	220

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-19	ates V., Suite D 036	D, COL WDOE A0	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	9/11/201 EV15090 EV15090 09/10/20 9/10/201 C601	5 0062 0062-02 015 5 9:20:00 A	M
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	2.3	0.50	5	MG/KG	09/11/2015	RAL
SUPPOGATE	METHOD	%PEC				ANALYSIS AN DATE	IALYSIS BY
TFT		105				09/10/2015	PAR
TET	FPA-8021	103				09/10/2015	PAR
C25	NWTPH-DX	127				09/10/2015	EBS

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CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE:	9/11/201 EV15090 EV15090 09/10/201 9/10/201	5 0062 0062-03 015 5 9:30:00 A	M
CLIENT SAMPLE ID	1099-20	SAMPLE		SCREDITATION.	001		
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	3.9	0.50	5	MG/KG	09/11/2015	RAL
SUPPOCATE	METHOD	% PEC				ANALYSIS AN DATE	IALYSIS BY
TET		100				00/10/2015	DAR
тет		109				09/10/2015	
151		107				09/10/2015	FAD
020		93.0				09/10/2015	EDO

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Page 4

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CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25	ates V., Suite D 036	D. COL	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE:	9/11/201 EV1509 EV1509 09/10/20 9/10/201	5 0062 0062-04 015 5 9:35:00 A	M
CLIENT SAMPLE ID	1099-21		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	2.9	0.50	5	MG/KG	09/11/2015	RAL
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY
TFT	NWTPH-GX	107				09/10/2015	PAR
TFT	FPA-8021	106				09/10/2015	PAB
C25	NWTPH-DX	99.6				09/10/2015	EBS

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Page 5



CLIENT:	Zipper Geo Associates	DATE:	9/11/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15090062
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		

LABORATORY BLANK RESULTS

MBG-090815S2 - Batch 96952 - Soil by NWTPH-GX

	METHOD	DESILITS	01141		REPORTING		
ANALITE	METHOD	RESULIS	QUAL	UNITS	LIVIIIS	DATE	ы
TPH-Volatile Range	NWTPH-GX	U		MG/KG	3.0	09/08/2015	PAB
U - Analyte analyzed for but not d	letected at level above repo	orting limit.					

MB-090815S2 - Batch 96952 - Soil by EPA-8021

					REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	QUAL I	UNITS	LIMITS	DATE	BY
Benzene	EPA-8021	U	Ν	MG/KG	0.030	09/08/2015	PAB
Toluene	EPA-8021	U	Ν	MG/KG	0.050	09/08/2015	PAB
Ethylbenzene	EPA-8021	U	Ν	MG/KG	0.050	09/08/2015	PAB
Xylenes	EPA-8021	U	Ν	MG/KG	0.20	09/08/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-090815S2 - Batch 96947 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U		MG/KG	25	09/09/2015	EBS
TPH-Oil Range	NWTPH-DX	U		MG/KG	50	09/09/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091115S - Batch 97033 - Soil by EPA-6020

					REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	QUAL	UNITS	LIMITS	DATE	BY
Lead	EPA-6020	U		MG/KG	0.10	09/11/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:	9/11/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15090062
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 96952 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	90.6			09/08/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	91.9	1		09/08/2015	PAB

ALS Test Batch ID: 96952 - Soil by EPA-8021

METHOD	%REC	RPD	QUAL	DATE	ANAL 1515 DT
EPA-8021	87.1			09/08/2015	PAB
EPA-8021	89.1	2		09/08/2015	PAB
EPA-8021	89.8			09/08/2015	PAB
EPA-8021	91.5	2		09/08/2015	PAB
EPA-8021	90.2			09/08/2015	PAB
EPA-8021	91.8	2		09/08/2015	PAB
EPA-8021	90.2			09/08/2015	PAB
EPA-8021	91.9	2		09/08/2015	PAB
	METHOD EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021	METHOD%RECEPA-802187.1EPA-802189.1EPA-802189.8EPA-802191.5EPA-802190.2EPA-802191.8EPA-802190.2EPA-802190.2EPA-802190.2EPA-802190.2EPA-802190.2EPA-802190.2EPA-802190.2	METHOD EPA-8021 %REC 87.1 RPD EPA-8021 89.1 2 EPA-8021 89.8 2 EPA-8021 91.5 2 EPA-8021 90.2 2 EPA-8021 91.8 2 EPA-8021 90.2 2 EPA-8021 90.2 2 EPA-8021 90.2 2 EPA-8021 90.2 2	METHOD %REC RPD QUAL EPA-8021 87.1 2 EPA-8021 89.1 2 EPA-8021 89.8 - EPA-8021 91.5 2 EPA-8021 90.2 - EPA-8021 91.8 2 EPA-8021 91.8 2 EPA-8021 90.2 - EPA-8021 91.9 2	METHOD %REC RPD QUAL DATE EPA-8021 87.1 09/08/2015 EPA-8021 89.1 2 09/08/2015 EPA-8021 89.8 09/08/2015 09/08/2015 EPA-8021 91.5 2 09/08/2015 EPA-8021 90.2 09/08/2015 09/08/2015 EPA-8021 90.2 09/08/2015 09/08/2015 EPA-8021 91.8 2 09/08/2015 EPA-8021 90.2 09/08/2015 09/08/2015 EPA-8021 91.8 2 09/08/2015 EPA-8021 90.2 09/08/2015 09/08/2015 EPA-8021 91.9 2 09/08/2015

ALS Test Batch ID: 96947 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	94.8		09/08/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	98.2	3	09/08/2015	EBS

ALS Test Batch ID: 97033 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.7		09/11/2015	RAL
Lead - BSD	EPA-6020	97.4	1	09/11/2015	RAL

APPROVED BY

Laboratory Director

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Construction Construction Construction Construction Construction memorine Construction <	Everett, WA 98 Phone (425) 38 Fax (425) 38	208 56-2600 56-2626			Lab	orat	ory	Anal	ysis	Re	enb	st				W	SIV	50	00	62	
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НОВ: ВО: BO: BO: </td <td>REPORT TO ZG COMPANY: ZG PROJECT MANAGER: JON ADDRESS:</td> <td>Eina</td> <td>rser</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0970</td> <td></td> <td>0728 AFE</td> <td>78087</td> <td></td> <td>Carley Carley</td> <td></td> <td><u></u></td> <td></td> <td></td> <td></td> <td>CNO</td>	REPORT TO ZG COMPANY: ZG PROJECT MANAGER: JON ADDRESS:	Eina	rser							0970		0728 AFE	78087		Carley Carley		<u></u>				CNO
Полнование Полнов	PHONE: P.O. #: 1099.25 INVOICE TO 26 COMPANY: 26	FAX: E-MAIL:						□ EPA-8260 [62 by EPA 8260	arendas by EPA s 8260 SIM (water)	(iios) 0928	Hydrocarbonas by I	🗔 þý EFA 808	в ⊡ 8-Аяря	(yt IoV-ime2 DAD					SAENIATUC	1000 000
SAMPLE LD DATE THE	ATTENTION: ADDRESS:					H-HCID	хэ-н ха-н	by EPA-8021	litsloV beten	EDC pX EBA	EDC by EPA	onstile Organie clic Aromatic	sebioitseq.	-MTCA-5	V i latete V i latete V	<				BER OF C	UNED IN G
1. 1099-18 3b/15 0915 501 1 X X X Z 2. 1099-19 032 2 1 <td< td=""><td>SAMPLE I.D.</td><td>DATE</td><td>TIME</td><td>TYPE</td><td>LAB#</td><td>IATWN</td><td>INMLEI</td><td>BTEX I</td><td>Haloge</td><td>EDB \ I</td><td>EDB/1</td><td>Folycyd</td><td>PCB</td><td>Metals</td><td>LCLP-I Metals</td><td>74</td><td></td><td>_</td><td></td><td>IWON</td><td>BECE</td></td<>	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	IATWN	INMLEI	BTEX I	Haloge	EDB \ I	EDB/1	Folycyd	PCB	Metals	LCLP-I Metals	74		_		IWON	BECE
2. 1099-19 0320 2 1 <td< td=""><td>1. 1099-18</td><td>Silaho</td><td>SIPO .</td><td>Soll</td><td>1</td><td></td><td>XX</td><td>×</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>×</td><td></td><td></td><td></td><td>N</td><td></td></td<>	1. 1099-18	Silaho	SIPO .	Soll	1		XX	×								×				N	
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4. 1099-21 V 035 V 1 V/V 1 V V 1 V V 1 V V 1 V V 1 V <t< td=""><td>3. 1099-20</td><td></td><td>09.30</td><td></td><td>~</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	3. 1099-20		09.30		~				-												
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10. SPECIAL INSTRUCTIONS SIGNATURES (Name-Company, Date, Time): A Relinquished By: Received By:	9.																	_		-	-
SIGNATURES (Name-Company, Date, Time): I. Relinquished By: Received By	10.																			12.3	
SIGNATURES (Name, Company, Date, Time): 10-50 / 9-10-55 / 10-20 1. Relinquished By: 20 / 10-50 / 10-20 Received By: 20 / 10-	SPECIAL INSTRUCTIONS													Γ.							
Received By: M_{T} , M_{T} , M_{T} , $\gamma/\rho/s$ / 0.2 U 10^{5} / 0.2 U 10^{5} / 0.2 W 10^{5} Specify: 2. Relinquished By: F is a marked B	SIGNATURES (Name_Comp	any, Date, Tir	100; A/9	10-15	102	0			Organi	c, Met	als & I	TI norga	JRNA nic A	ROUN	ID RE	QUESTI	ED In Bu	siness OTHE	Days* R:		
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September 17, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 16th, 3 samples were received by our laboratory and assigned our laboratory project number EV15090097. The project was identified as your 1099.25. 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

Page 1
ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626



CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-21 SAMPLE DAT		D. COL WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	9/17/2015 EV15090097 EV15090097-01 09/16/2015 9/15/2015 3:15:00 AM C601		
		O/AMI LL		DILUTION			
	METHOD		LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	120	15	5	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	0.12	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	0.29	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	1.0	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	0.69	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.4	0.50	5	MG/KG	09/17/2015	RAL
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	ВТ
TFT 5X Dilution	NWTPH-GX	136				09/17/2015	PAB
TFT	EPA-8021	145 GS3				09/17/2015	PAB
C25	NWTPH-DX	88.3				09/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit. GS3 - Surrogate outside of control limits due to coeluting compounds. Chromatogram indicates that it is likely that sample contains weathered gasoline.

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Page 2

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 1099-22	ates V., Suite D 036	D, COL WDOE A0	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	9/17/20 EV1509 EV1509 09/16/2 9/15/20 C601	15 90097 90097-02 015 15 3:18:00 A	M
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	11	3.0	1	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	0.10	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.0	0.50	5	MG/KG	09/17/2015	RAL
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DAIL	51
TFT	NWTPH-GX	89.3				09/17/2015	PAB
TFT	EPA-8021	88.2				09/17/2015	PAB
C25	NWTPH-DX	87.8				09/17/2015	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.

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 1099-23		D. COL WDOE A0	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	9/17/2015 EV15090097 EV15090097-03 09/16/2015 9/15/2015 3:20:00 AM C601		
		SAMPLE	DATA RESULTS				
ΑΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	30	3.0	1	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	0.076	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.5	0.50	5	MG/KG	09/17/2015	RAL
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY
TFT	NWTPH-GX	72.4				09/17/2015	PAB
TFT	EPA-8021	70.1				09/17/2015	PAB
C25	NWTPH-DX	87.5				09/17/2015	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.

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CLIENT:	Zipper Geo Associates	DATE:	9/17/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15090097
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-091015S - Batch 97071 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS By	
TPH-Volatile Range	NWTPH-GX	U		MG/KG	3.0	09/11/2015	PAB	
U - Analyte analyzed for bu	t not detected at level above repo 17071 - Soil by EPA-80	orting limit.)21						
					DEDODTING		ANAL VOIC	

					REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	QUAL	UNITS	LIMITS	DATE	BY
Benzene	EPA-8021	U		MG/KG	0.030	09/11/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	09/11/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	09/11/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	09/11/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091715S - Batch 97179 - Soil by NWTPH-DX

					REPORTING	ANALYSIS	ANALYSIS	
ANALYTE	METHOD	RESULTS	QUAL UNITS		LIMITS	DATE	BY	
TPH-Diesel Range	NWTPH-DX	U	MG/KG		25	09/17/2015	EBS	
TPH-Oil Range	NWTPH-DX	U	9/ 1/1/2/0015	EBS	50			

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091715S - Batch 97167 - Soil by EPA-6020

					REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	QUAL	UNITS	LIMITS	DATE	BY
Lead	EPA-6020	U		MG/KG	0.10	09/17/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:	9/17/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15090097
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97071 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD Q	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	88.8			09/11/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	90.4	2		09/11/2015	PAB

ALS Test Batch ID: 97071 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	ANAL 1313 DT
Benzene - BS	EPA-8021	85.1			09/11/2015	PAB
Benzene - BSD	EPA-8021	85.9	1		09/11/2015	PAB
Toluene - BS	EPA-8021	87.9			09/11/2015	PAB
Toluene - BSD	EPA-8021	88.7	1		09/11/2015	PAB
Ethylbenzene - BS	EPA-8021	88.5			09/11/2015	PAB
Ethylbenzene - BSD	EPA-8021	88.8	0		09/11/2015	PAB
Xylenes - BS	EPA-8021	87.7			09/11/2015	PAB
Xylenes - BSD	EPA-8021	89.3	2		09/11/2015	PAB

ALS Test Batch ID: 97179 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	106		09/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	96.2	10	09/17/2015	EBS

ALS Test Batch ID: 97167 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.1			09/17/2015	RAL
Lead - BSD	EPA-6020	101	3		09/17/2015	RAL

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	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen	DATE: ALS SDG#: WDOE ACCREDITATION:	9/17/2015 EV15090097 C601	
CEIEINT I ROJECT.	MATR	IX SPIKE RESULTS		
ALS Test Batch ID: 9 Parent Sample: 1	17179 - Soil 099-22			

SPIKED COMPOUND	METHOD	%REC	RPD QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - MS	NWTPH-DX	96.9		09/17/2015	EBS

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Laboratory Director

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February 9, 2016

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On February 4th, 4 samples were received by our laboratory and assigned our laboratory project number EV16020037. The project was identified as your 1099.25 BMC Issaquah. 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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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 BMC Issa HA-1	ates V., Suite D)36 quah	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION	2/9/2016 EV16020 EV16020 02/04/20 2/4/2016 C601	0037 0037-01 16 5 10:45:00 A	M
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING	DILUTION FACTOR	UNITS 4	ANALYSIS AN DATE	ALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/08/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/08/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/08/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/08/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/08/2016	PAB
SURROGATE	METHOD	%REC			4	ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	63.2				02/08/2016	PAB
TFT	EPA-8021	62.2				02/08/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98 Jon Einarsen 1099.25 BMC Issa HA-2	ates V., Suite D 036 quah	DA COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	2/9/2010 EV1602 EV1602 02/04/20 2/4/2010 C601	6 0037 0037-02 016 6 10:45:00	AM
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY
TFT	NWTPH-GX	76.6				02/05/2016	PAB
TFT	EPA-8021	82.6				02/05/2016	PAB

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CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 BMC Issa HA-3	ates V., Suite D)36 quah	D/ COLI WDOE AC	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: ECTION DATE: CREDITATION:	2/9/2016 EV16020 EV16020 02/04/20 2/4/2016 C601	3 0037 0037-03 016 3 10:45:00 A	M
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY
TFT	NWTPH-GX	68.0				02/05/2016	PAB
TFT	EPA-8021	73.7				02/05/2016	PAB

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CERTIFICATE	OF ANALYSIS	

CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 BMC Issa	ates V., Suite D 036 quah	D/ COLI	DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE:	2/9/2016 EV16020 EV16020 02/04/20 2/4/2016	0037 0037-04 16 10:45:00 A	M
CLIENT SAMPLE ID	HA-4		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB
						ANALYSIS AN	
SURROGATE	METHOD	%REC				DATE	BY
TFT	NWTPH-GX	72.7				02/05/2016	PAB
TFT	EPA-8021	78.0				02/05/2016	PAB

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CLIENT:	Zipper Geo Associates	DATE:	2/9/2016
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV16020037
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25 BMC Issaquah		

LABORATORY BLANK RESULTS

MBG-020416S - Batch 101216 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS		UNITS		REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U		M02/8552016	PAB	3.0		
U - Analyte analyzed for but not	detected at level above rep	orting limit.						
MB-020416S - Batch 101	216 - Soil by EPA-8	8021						
						REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS		UNITS		LIMITS	DATE	BY
Benzene	EPA-8021	U	С)16/IG/KGPAB		0.030		
Toluene	EPA-8021	U	0:	16MG/KOPAB		0.050		
Ethylbenzene	EPA-8021	U		05 1/26/1/6 G PAB		0.050		
Xylenes	EPA-8021	U	02	16MG/KOPAB		0.20		

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:	2/9/2016
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV16020037
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25 BMC Issaquah		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 101216 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	96.9		02/04/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	98.2	1	02/04/2016	PAB

ALS Test Batch ID: 101216 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	ANAL 1515 DT
Benzene - BS	EPA-8021	88.0			02/04/2016	PAB
Benzene - BSD	EPA-8021	84.8	4		02/04/2016	PAB
Toluene - BS	EPA-8021	95.1			02/04/2016	PAB
Toluene - BSD	EPA-8021	91.2	4		02/04/2016	PAB
Ethylbenzene - BS	EPA-8021	90.6			02/04/2016	PAB
Ethylbenzene - BSD	EPA-8021	88.5	2		02/04/2016	PAB
Xylenes - BS	EPA-8021	92.0			02/04/2016	PAB
Xylenes - BSD	EPA-8021	89.3	3		02/04/2016	PAB

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Chain Of Custodv/



August 6, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On August 5th, 1 sample was received by our laboratory and assigned our laboratory project number EV15080015. The project was identified as your 1099.25. 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

Page 1 ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 PHONE 425-356-2600 FAX 425-356-2626



CLIENT: CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 TW-1	ates V., Suite D 036	D, COL WDOE A(DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE: CCREDITATION:	8/6/201 EV1508 EV1508 08/05/2 8/4/201 C601	5 30015 30015-01 2015 5 12:45:00 P	M
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	08/05/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	08/05/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	08/05/2015	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	08/05/2015	EBS
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	IALYSIS BY
TFT	NWTPH-GX	78.7				08/05/2015	PAB
TFT	EPA-8021	89.8				08/05/2015	PAB
C25	NWTPH-DX	82.4				08/05/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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Page 2

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CLIENT:	Zipper Geo Associates	DATE:	8/6/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15080015
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		

LABORATORY BLANK RESULTS

MBG-080515W - Batch 95904 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U		UG/L	50	08/05/2015	PAB
U - Analyte analyzed for but not d MB-080515W - Batch 9590	etected at level above repo 04 - Water by EPA	orting limit. . -8021					

				REPORTING	ANALYSIS	ANALYSIS	
ANALYTE	METHOD	RESULTS	QUAL UNITS	LIMITS	DATE	BY	
Benzene	EPA-8021	U	UG/L	1.0	08/05/2015	PAB	
Toluene	EPA-8021	U	UG/L	1.0	08/05/2015	PAB	
Ethylbenzene	EPA-8021	U	UG/L	1.0	08/05/2015	PAB	
Xylenes	EPA-8021	U	UG/L	3.0	08/05/2015	PAB	

U - Analyte analyzed for but not detected at level above reporting limit.

MB-080415W - Batch 95873 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U		UG/L	130	08/04/2015	EBS
TPH-Oil Range	NWTPH-DX	U		UG/L	250	08/04/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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Page 3



Zipper Geo Associates	DATE:	8/6/2015
19023 - 36th Ave W., Suite D	ALS SDG#:	EV15080015
Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
Jon Einarsen		
1099.25		
	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25	Zipper Geo AssociatesDATE:19023 - 36th Ave W., Suite DALS SDG#:Lynnwood, WA 98036WDOE ACCREDITATION:Jon Einarsen1099.25

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95904 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	81.6			08/05/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	79.3	3		08/05/2015	PAB

ALS Test Batch ID: 95904 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	ANAL 1515 DI
Benzene - BS	EPA-8021	97.0			08/05/2015	PAB
Benzene - BSD	EPA-8021	99.3	2		08/05/2015	PAB
Toluene - BS	EPA-8021	95.8			08/05/2015	PAB
Toluene - BSD	EPA-8021	99.1	3		08/05/2015	PAB
Ethylbenzene - BS	EPA-8021	94.6			08/05/2015	PAB
Ethylbenzene - BSD	EPA-8021	98.2	4		08/05/2015	PAB
Xylenes - BS	EPA-8021	96.4			08/05/2015	PAB
Xylenes - BSD	EPA-8021	100	4		08/05/2015	PAB

ALS Test Batch ID: 95873 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	103			08/04/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	102	1		08/04/2015	EBS

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Laboratory Director

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ALS Environmental		Chain Of (Custody	1				ALS Job# (La	ooratory Use Only)	[
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PROJECT ID: 1099.25		ANALYSIS REQUI	ESTED					OTHER (Specify)		
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September 11, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 8th, 1 sample was received by our laboratory and assigned our laboratory project number EV15090054. The project was identified as your 1099.25. 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

Page 1 ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 PHONE 425-356-2600 FAX 425-356-2626


CERTIFICATE OF ANALYSIS

CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associ 19023 - 36th Ave N Lynnwood, WA 98 Jon Einarsen 1099.25	iates M., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#: ATE RECEIVED: LECTION DATE:	9/11/20 EV1509 EV1509 09/08/2 9/8/201	15 90054 90054-01 015 5 12:40:00 P	'M
CLIENT SAMPLE ID	1 VV-2	SAMDIE		SCREDITATION.	001		
		SAIVIFLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	IALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/09/2015	PAB
Fats/Oils/Grease (Total)	EPA-1664	U	5.0	1	MG/L	09/10/2015	DNT
						ANALYSIS AN	IALYSIS
SURROGATE	METHOD	%REC				DATE	BY
TFT	EPA-8021	95.6				09/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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Page 2



CERTIFICATE OF ANALYSIS

9/11/2015

C601

EV15090054

CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	

LABORATORY BLANK RESULTS

MB-090315W2 - Batch 96965 - Water by EPA-8021

					REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	QUAL	UNITS	LIMITS	DATE	BY
Benzene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Toluene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Ethylbenzene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Xylenes	EPA-8021	U		UG/L	3.0	09/03/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:

CLIENT PROJECT:

Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 CLIENT CONTACT: Jon Einarsen

1099.25

DATE: ALS SDG#: WDOE ACCREDITATION:

9/11/2015 EV15090054 C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 96965 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	94.8			09/03/2015	PAB
Benzene - BSD	EPA-8021	96.9	2		09/03/2015	PAB
Toluene - BS	EPA-8021	95.7			09/03/2015	PAB
Toluene - BSD	EPA-8021	95.9	0		09/03/2015	PAB
Ethylbenzene - BS	EPA-8021	97.3			09/03/2015	PAB
Ethylbenzene - BSD	EPA-8021	99.1	2		09/03/2015	PAB
Xylenes - BS	EPA-8021	99.4			09/03/2015	PAB
Xylenes - BSD	EPA-8021	101	2		09/03/2015	PAB

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Laboratory Director

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Page 4

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Tw-2 q-8-15 1240 H20 1 X 3 Image: Strain St	Tw-2 9-8-15 1240 H20 1 X 1 X 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1 1 3 3 1 1 1 1 1 1 1 1 1 1 3 3 1	T.W-2 9-8-15 1240 H-20 1 X Image: Second	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	ATWN ATWN	ATWN XATA	MTBE	Haloge Hitslov	EDB \	vime2	6CB 60/AcA	eletəM	Metals	D7			NUM	
		Contracted By States & Hydrocarbon Amounts	TW-2	51-8-6	1240	H20	-		×								Ø			3	
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NATURES (Name, Company, Date, Time): elinquished By: 26A 7-8-15/1720 Organic, Metals & Inorganic Analysis OTHER:			eceived By: KA	- de	845	Jais-	123	0		- 0	Fuels	& Hyd	ocarb		L low	_	A Sol	9-11-15	5	300	00

"Turnaround request less than standard may incur Rush Charges

Received By:

Appendix I – Remedial Action Scale Tickets

Environmental/Civil

Document ID	Job #	Date	1	Facility	Material Type	Scale Ticket #	Trucking Co.	Truck #	BOL #		Tons
81674	214058	ç	9/22/2015	, Lakeside Industries	Asphalt	318190	Lakeside		46	318190	15.15
81675	214058	9	9/22/2015	Lakeside Industries	Asphalt	318191	Lakeside		30	318191	17.19
81677	214058	9	9/22/2015	Lakeside Industries	Asphalt	318199	Lakeside		30	318199	16.95
81678	214058	ç	9/22/2015	Lakeside Industries	Asphalt	318206	Lakeside		46	318206	15.11
81679	214058	ç	9/22/2015	Lakeside Industries	Asphalt	318208	Lakeside		30	318208	16.91
81680	214058	9	9/22/2015	Lakeside Industries	Asphalt	318210	Lakeside		46	318210	15.25
81676	214058	9	9/22/2015	Lakeside Industries	Asphalt	319198	Lakeside		46	318198	15.02
					Asphalt Total						111.58
80828	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926063	Clearcreek		44	8288	32.50
80833	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926065	Clearcreek		43	7183	33.63
80838	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926068	Winter Trucking		10	5318	32.20
80853	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926070	Springbrook		25	105795	33.17
80843	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926071	Springbrook		10	108578	28.92
80829	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926075	Clearcreek		44	8288	33.31
80834	214058	/	//21/2015	Regional Disposal	Class III/IV Soll	926076	Clearcreek		43	/183	28.07
80839	214058		7/21/2015 7/21/2015	Regional Disposal		926078	winter Trucking		25	5318	29.99
80854	214058		7/21/2015 7/21/2015			926081	Springbrook		25	100/95	31.07
80844	214058		7/21/2015 7/21/2015			920082	Clearcreek		10	0200 0200	2/ 15
80836	214058		7/21/2015	Regional Disposal	Class III/IV Soil	926085	Clearcreek		44 13	7183	29.35
80840	214058	-	7/21/2015	Regional Disposal	Class III/IV Soil	926090	Winter Trucking		10	5318	30.02
80856	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926091	Springbrook		25	105795	29.35
80845	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926093	Springbrook		10	108578	29.73
80831	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926095	Clearcreek		44	8288	33.34
80835	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926099	Clearcreek		43	7183	30.31
80841	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926105	Winter Trucking		10	5318	43.19
80846	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926109	Springbrook		10	108578	33.99
80855	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926115	Springbrook		25	105795	32.35
80832	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926116	Clearcreek		44	8288	34.12
80889	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926117	Clearcreek		43	7183	33.20
81132	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926118	Winter Trucking		10		28.78
81133	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926119	Springbrook		10	108578	31.08
80890	214058	7	7/21/2015	Regional Disposal	Class III/IV Soil	926120	Springbrook		25	105795	28.97
80917	214058	7	7/22/2015	Regional Disposal	Class III/IV Soil	926124	Springbrook		25	105796	26.04
80922	214058		//22/2015	Regional Disposal	Class III/IV Soil	926125	Springbrook		26	108885	23.28
80912	214058	/	//22/2015	Regional Disposal	Class III/IV Soll	926128	Clearcreek		43	7184	23.85
80911	214058		7/22/2015 7/22/2015	Regional Disposal		926131	Clearcreek		43 25	/184	20.00
80913	214058		7/22/2013	Regional Disposal		026122	Springbrook		25	109790	22.33
80913	214058	, -	7/22/2015	Regional Disposal	Class III/IV Soil	926133	Clearcreek		20 43	7184	34 29
80916	214058	7	7/22/2015	Regional Disposal	Class III/IV Soil	926139	Springbrook			105796	25.88
80921	214058		7/22/2015	Regional Disposal	Class III/IV Soil	926142	Springbrook		26	108885	26.40
81055	214058	7	7/22/2015	Regional Disposal	Class III/IV Soil	926145	Clearcreek	43/50		7184	36.40
80918	214058	7	7/22/2015	Regional Disposal	Class III/IV Soil	926147	Springbrook	- ,	25	105796	32.48
80920	214058	7	7/22/2015	Regional Disposal	Class III/IV Soil	926150	Springbrook		26	108885	32.52
80896	214058	7	7/23/2015	Regional Disposal	Class III/IV Soil	926173	Springbrook		25	105797	43.33
80897	214058	7	7/23/2015	Regional Disposal	Class III/IV Soil	926176	Springbrook		26	108886	37.23
81134	214058	7	7/23/2015	Regional Disposal	Class III/IV Soil	926211	Springbrook		25	105797	23.50
81135	214058	7	7/23/2015	Regional Disposal	Class III/IV Soil	926212	Springbrook		26	108886	26.65
80892	214058	7	7/24/2015	Regional Disposal	Class III/IV Soil	926256	Clearcreek		44	8292	25.18
81136	214058	7	7/24/2015	Regional Disposal	Class III/IV Soil	926274	Springbrook		25	104664	26.22
81578	214058	9	9/10/2015	Regional Disposal	Class III/IV Soil	928912	Clearcreek	43/50		7200	33.65
81579	214058	9	9/10/2015	Regional Disposal	Class III/IV Soil	928926	Clearcreek	43/50		7200	28.56
81587	214058	9	9/16/2015 	Regional Disposal	Class III/IV Soil	929111	Springbrook		25	108240	9.96
81668	214058	, s	9/18/2015	Regional Disposal	Class III/IV Soil	929237	Clearcreek		43		9.61
91615	214059)/17/201E	Cadman		2025201	Springbrook		25	109241	1,395.87
81615	214038		2/17/2015 0 2/17/2015 0	Cadman	CSTC	3023281	Springbrook		20 25	108241	29.04
81617	214058)17/2015)/17/2015	Cadman	CSTC	2825286	Springbrook		25	108241	20.22
81619	214058)/17/2015 (Cadman	CSTC	3825280	Springbrook		25	108241	29.04
01010			., 1, 1, 2013		CSTC Total	3023200					119.78
81430	214058		9/9/2015	Cadman	Quarry Spalls	3825078	Clearcreek		43	7199	16.83
81435	214058	ç	9/14/2015	Cadman	Quarry Spalls	3825140	Clearcreek	43/50		8602	32.49
81436	214058	9	9/14/2015	Cadman	Quarry Spalls	3825142	Clearcreek	43/50		8602	32.35
81437	214058	9	9/14/2015	Cadman	Quarry Spalls	3825143	Clearcreek	43/50		8602	32.57
81438	214058	ç	9/14/2015	Cadman	Quarry Spalls	3825145	Clearcreek	43/50		8602	32.09

81439 214058	9/14/2015 Cadman	Quarry Spalls	3825147 Clearcreek	43/50	8602	31.70
81440 214058	9/14/2015 Cadman	Quarry Spalls	3825150 Clearcreek	43/50	8602	31.71
81441 214058	9/14/2015 Cadman	Quarry Spalls	3825152 Clearcreek	43/50	8602	32.16
81442 214058	9/14/2015 Cadman	Quarry Spalls	3825153 Clearcreek	43/50	8602	31.84
81443 214058	9/14/2015 Cadman	Quarry Spalls	3825157 Clearcreek	43/50	8602	31.28
81444 214058	9/14/2015 Cadman	Quarry Spalls	3825159 Clearcreek	43/50	8602	31.42
81445 214058	9/14/2015 Cadman	Quarry Spalls	3825160 Clearcreek	43/50	8602	31.93
81446 214058	9/14/2015 Cadman	Quarry Spalls	3825162 Clearcreek	43/50	8602	32.12
		Quarry Spalls Total				400.49
81600 214058	9/15/2015 Cadman	Type 17	3825198 Springbrook			22.14
81601 214058	9/15/2015 Cadman	Type 17	3825199 Springbrook			22.84
81602 214058	9/15/2015 Cadman	Type 17	3825200 Springbrook			23.16
81603 214058	9/15/2015 Cadman	Type 17	3825204 Springbrook			23.28
81604 214058	9/15/2015 Cadman	Type 17	3825206 Springbrook			22.86
81605 214058	9/15/2015 Cadman	Type 17	3825208 Springbrook			22.06
81606 214058	9/15/2015 Cadman	Type 17	3825210 Springbrook			22.62
81607 214058	9/15/2015 Cadman	Type 17	3825213 Springbrook			22.50
81608 214058	9/15/2015 Cadman	Type 17	3825215 Springbrook	949	3825215	22.35
81588 214058	9/16/2015 Cadman	Type 17	3825220 Springbrook	25	108240	29.56
81589 214058	9/16/2015 Cadman	Type 17	3825225 Springbrook	25	108240	29.32
81590 214058	9/16/2015 Cadman	Type 17	3825226 Springbrook	25	108240	29.42
81591 214058	9/16/2015 Cadman	Type 17	3825227 Springbrook	25	108240	29.86
81592 214058	9/16/2015 Cadman	Type 17	3825228 Springbrook	25	108240	29.74
81593 214058	9/16/2015 Cadman	Type 17	3825229 Springbrook	25	108240	29.26
81594 214058	9/16/2015 Cadman	Type 17	3825230 Springbrook	25	108240	28.67
81595 214058	9/16/2015 Cadman	Type 17	3825231 Springbrook	25	108240	29.49
81596 214058	9/16/2015 Cadman	Type 17	3825232 Springbrook	25	108240	29.59
81597 214058	9/16/2015 Cadman	Type 17	3825236 Springbrook	25	108240	29.49
81598 214058	9/16/2015 Cadman	Type 17	3825239 Springbrook	25	108240	29.92
81599 214058	9/16/2015 Cadman	Type 17	3825241 Springbrook	25	108240	29.40
81619 214058	9/17/2015 Cadman	Type 17	3825245 Springbrook	25	108241	28.79
81620 214058	9/17/2015 Cadman	Type 17	3825252 Springbrook	25	108241	29.30
81621 214058	9/17/2015 Cadman	Type 17	3825257 Springbrook	25	108241	29.49
81622 214058	9/17/2015 Cadman	Type 17	3825261 Springbrook	25	108241	29.09
81623 214058	9/17/2015 Cadman	Type 17	3825265 Springbrook	25	108241	28.47
81624 214058	9/17/2015 Cadman	Type 17	3825269 Springbrook	25	108241	28.87
81625 214058	9/17/2015 Cadman	Type 17	3825272 Springbrook	25	108241	28.75
81626 214058	9/17/2015 Cadman	Type 17	3825274 Springbrook	25	108241	28.53
81627 214058	9/17/2015 Cadman	Type 17	3825276 Springbrook	25	108241	29.62
81628 214058	9/17/2015 Cadman	Type 17	3825279 Springbrook	25	108241	29.43
		Type 17 Total				847.87
80847 214058	7/20/2015 Lakeside Industries	Waste Asphalt	310975 Clearcreek	44	8247	13.57
80848 214058	//20/2015 Lakeside Industries	Waste Asphalt	310987 Clearcreek	44	8247	15.00
80849 214058	7/20/2015 Lakeside Industries	Waste Asphalt	310995 Clearcreek	44	8247	13.83
80850 214058	//20/2015 Lakeside Industries	Waste Asphalt	311016 Clearcreek	44	8247	14.70
80851 214058	//20/2015 Lakeside Industries	Waste Asphalt	311024 Clearcreek	44	8247	10.61
81669 214058	9/18/2015 Lakeside Industries	Waste Asphalt	317901 Clearcreek	43		16.40
81670 214058	9/18/2015 Lakeside Industries	Waste Asphalt	317913 Clearcreek	43		23.76
		Waste Asphalt Total				107.87

SITE REGIONAL DISPOSAL INTERMO 3rd and lander Seattle, WA CUSTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171	DAL	SITE TICKE 01 WEIGHMASTER Drinda I DATE/TIME IN 07-22-20 VEHICLE 25 SPRIN REFERENCE BILL OF LADING	926139 925139 915 12:57 g JGBROOK	DATE/TIME DM 07-22- CONTAINER	out 2015 1:17 pm I INVOICE
SCALE IN GROSS WEIGHT SCALE OUT TARE WEIGHT	93,100 NET 11,340 NET 1	TONS NEIGHT	25.88 51,760	INBC	DUND
QTY. UNIT DESCRI	PTION		RATE	XTENSION	TAX TOTAL
0.00 YD TRACKING QTY 25.88 TN SW-CONT SOIL W/FUEL	ISSAQUAH/KING				
					TENDERED
The undersigned individual signing this document on behalf of Cu	stomer acknowledges that he or s	he has read and u	nderstands the terms	and conditions	CHANGE
on the reverse side and that he or she has the authority to sign this RS-F042UPR (07/12)	s document on behalf of the custo	mer.			CHECK#

SITE REGIONA Sea CUSTOMER 014755 Clearcreek Contra 3919 88th ST NE Marysville, WA LW-15171	AL DISPOSAL INTERM 3rd and lander ttle, WA actors 98270	DAL	SITE TIC 01 WEIGHMASTI JAMIE DATE/TIME IN 07-22- VEHICLE 25 SPRI REFERENCE BILL OF LAD	KET # 926124 ER B. 2015 8:35 a NGBROOK	CELL DATE/TIN 07-22 CONTAIN	E OUT -2015 8:57 aπ ER INVOICE
SCALE IN SCALE OUT	GROSS WEIGHT TARE WEIGHT	93,440 41,360	NET TONS NET WEIGHT	26.04 52,080	11	IBOUND
1 GTY. UNIT 0.00 YD TRACKI 26.04 TN SW-CON	DESC ING QTY IT SOIL W/FUEL	ISSAQUA	AH/KING		A TENSION	TRA
The undersigned individual	signing this document on behalf of	Customer acknowledge	es that he or she has read an	d understands the terms (and conditions	NET AMOUNT TENDERED CHANGE

SITE		REGIONA	I. DISPOSAL INTE	RMODAL		SITE	TICKE	F #		CELL		
	•	10010111	3rd and lander				ASTER	926147		[
l		Seat	tle, WA		J	IN -	JAM	IE B. (OUT - R	ayler	ne W.	
CUSTOMER	55					DATE/TI 07-2	me in 2-20	15 2:3	31 pm	07-2	I ME OUT 2-2015	2:43 pm
Clear	rcree	k Contra	ctors			25 S	E Sprtn	GBROOK		CONTA	NER	· · · · · ·
3919	88th	ST NE	2070			REFERE	NCE			1		
Marys	SV1⊥⊥	e, WA 98	3270								INV	OICE
LW-1	5171					BILL OF	LADING					
	SCALE	C IN	GROSS WEIGHT	106,180	NET	TONS		32.48				
l	SCALE	C OUT	TARE WEIGHT	41,220	NET WE	EIGHT	C	64,960		ΊΙ	IBOUND	
	UNIT		D	ESCRIPTION				RATE	EXTENSI	ON	TAX	TOTAL
0.00	YD	TRACKIN	G QTY									
32.48	ΤN	SW-CONT	SOIL W/FUEL	ISSAQU	JAH/KING							
												NET AMOUNT
												TENDERED
Th	e undersi	ned individual s	igning this document on behalf	of Customer acknowled	dges that he or she	e has rea	d and ur	derstands the t	terms and con	ditions		CHANGE
on	the rever	se side and that I	ne or she has the authority to s	ign this document on be	ehalf of the custom	er.						CHECK#
RS-F042U	PR (07/1:	2)			SIGNATURE							

SITE REGIONAL 3r Seatt CUSTOMER 014755 Clearcreek Contract 3919 88th ST NE Marysville, WA 982 LW-15171	DISPOSAL INTER of and lander le, WA - ors 70	MODAL	SITE 01 WEIGHMA IN - DATE/TIM 07-22 VEHICLE 26 SE REFEREN BILL OF L	TICKET # 926150 STER JAMIE B. (EIN -2015 2:5 PRINGBROOK CE ADING	DUT - Rayle DUT - Rayle 53 pm 07-2 CONTA	ne W. IMEOUT 2-2015 INER INV(3:09 рп ЭICE
SCALE IN SCALE OUT	GROSS WEIGHT TARE WEIGHT	106,540 41,500	NET TONS NET WEIGHT	32.52 65,040	I	NBOUND	
	DES	CRIPTION		RATE	EXTENSION	ΤΑΧ	TOTAL
0.00 YD TRACKING 32.52 TN SW-CONT S	QTY SOIL W/FUEL	ISSAQU	AH/KING				NET AMOUNT
							TENDERED
The undersigned individual sign on the reverse side and that he RS-F042UPR (07/12)	ing this document on behalf o or she has the authority to sig	of Customer acknowled n this document on be	lges that he or she has read half of the customer. SIGNATURE	and understands the	terms and conditions		CHANGE CHECK#

SITE CUSTOMER 01475 Clean 3919 Marys LW-1	• 55 88th 88th 5171	REGIONAL DISPOSAL INTE 3rd and lander Seattle, WA k Contractors ST NE e, WA 98270	RMODAL	SITE TICK 01 WEIGHMASTE IN - Dr DATE/TIME IN 07-22-2 VEHICLE 26 SPRI REFERENCE BILL OF LADI!	Ket# 926142 R inda L. 015 1:0 NGBROOK	OUT - Rayl DATE 5 pm 07-2 CONT	Lene W. TIME OUT 22-2015 AINER INV	1:24 pr OICE
~	SCALE SCALE	E IN GROSS WEIGHT E OUT TARE WEIGHT	94,560 41,760	NET TONS NET WEIGHT	26.40 52,800	I	NBOUND	
QTY.	UNIT	Di	ESCRIPTION		RATE	EXTENSION	TAX	TOTAL
0.00 26.40	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQUAH,	'KING	-			
			!					NET AMOUNT
					•			TENDERED
The	undersig	gned individual signing this document on behalf	of Customer acknowledges t	hat he or she has read and	understands the te	rms and conditions		CHANGE
RS-F042UF	PR (07/12	Service and that he of she has the authority to second contract (2)	gn mis document on behalt o	ATURE				CHECK#

SITE	REGIONAL DISPOSAL INTE	RMODAL	SITE 01	тіскет # 926125	CELL		
	3rd and lander Seattle, WA		WEIGH	MASTER - JAMIE R (NUT - Drind	a I.	
CUSTOMER 014755 Clearcree 3919 88th Marysvill LW-15171	k Contractors ST NE e, WA 98270		DATE/T DOT -2 VEHICL 26 S REFERI BILL OI	E SPRINGBROOK E ELADING	37 am 07-2 conta	IME OUT 2-2015 INER	8:58 an
SCALE	E IN GROSS WEIGHT E OUT TARE WEIGHT	88,480 41,920	NET TONS NET WEIGH	23.28 I 46,560	I	NBOUND	
QTY. UNIT	DI	SCRIPTION		RATE	EXTENSION	ТАХ	TOTAL
0.00 YD 23.28 TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQU	AH/KING				
		İ					

TENDERED

NET AMOUNT

CHANGE

CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SITE	•	REGIONAL DISPOSA 3rd and l Seattle, WA	L INTERMODAL ander 		E TICKET #)1 92 GHMASTER I – JAMIE	6133 B. OUT	- Kim I	•	
CUSTOMER 01475 Cleau 3919	55 ccree 88th	k Contractors ST NE		DA1 07 VEF 26	E/TIME IN -22-2015 ICLE SPRINGB	10:45 a ROOK	m 07-2	TIME OUT 22-2015 AINER	11:41 am
Marys LW-1	svill 5171	e, WA 98270		BILI	ERENCE			INV	OICE
	SCALE SCALE	C IN GROSS WI C OUT TARE WI	SIGHT 93,240 SIGHT 42,340	NET TO NET WEIG	NS 2 GHT 50	25.45 0,900	I	NBOUND	
0.00 25.45	TY. UNIT 0.00 YD TRACKIN 25.45 TN SW-CONT	TRACKING QTY SW-CONT SOIL W/F	JEL ISSA	QUAH/KING		RATE	KTENSION	ΤΑΧ	TOTAL
									NET AMOUNT
Th	e undersio	aned individual signing this docume	nt on behalf of Customer acknow	riedges that he or she has	read and unders	tands the terms a	nd conditions		TENDERED
on RS-F042UF	the revers	se side and that he or she has the a	uthority to sign this document on	SIGNATURE					CHECK#

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			SITE TICKE	926145	CELL		
ITE REGIONAL 3 Seat	DISPOSAL INTERMO rd and lander tle, WA	DAL	WEIGHMASTER IN - JAM DATE/TIME IN	<u>MIE B. OU</u>	T - Raylen DATE/TIN pm 07-22	e W. IE OUT -2015	2:19 pm
O14755 Clearcreek Contrac 3919 88th ST NE Marysville, WA 98	tors 3270		UT-22-20 VEHICLE 43 CLEAJ REFERENCE BILL OF LADIN	RCREEK		INVC	DICE
LW-15171 	GROSS WEIGHT	112,300	NET TONS NET WEIGHT	36.40 72,800	I	NBOUND	TOTAL
SCALE OUT	TARE WEIGHT	CRIPTION		RATE	EXTENSION	TAX	
OTV. UNIT 0.00 YD TRACKIN 36.40 TN SW-CONT	IG QTY 5 SOIL W/FUEL	ISSAQUA	4/KING				NET AMO
The undersigned individues the reverse side and the	ual signing this document on beha that he or she has the authority to	if of Customer acknowled	iges that he or she has read half of the customer.	and understands th	ne terms and conditio	ns	CHAN CHAN

SIGNATURE _____

RS-F042UPR (07/12)

SITE CUSTOMER 0147 Clea 3919 Mary LW-1	55 rcree 88th svill 5171	REGION Sea k Contra ST NE e, WA	AL DISPOSAL INTER 3rd and lander attle, WA actors 98270	MODAL	SITE 01 WEIGHMAS IN - DATE/TIME 09-10 VEHICLE 43 CL REFERENC BILL OF LA	CKET # 928926 TER JAMIE B. O N-2015 8:4 EARCREEK E DING	OUT - Drin 9 am 09- CON	CELL T - Drinda L. am 09-10-2010 9:0 CONTAINER INVOICE INBOUND EXTENSION TAX TO		
	SCALI SCALI	E IN E OUT	GROSS WEIGHT TARE WEIGHT	97,340 40,220	NET TONS NET WEIGHT	28.56 57,120		INBOUND		
ζατγ.	UNIT		DE	SCRIPTION		RATE	EXTENSION	TAX	TOTAL	
28.56	YD TN	TRACKI SW-CON	NG QTY T SOIL W/FUEL	ISSAQU	AF./XING				NET AMOUNT	
									TENDERED	

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

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SITE		REGIONA	L DISPOSAL INTE 3rd and lander	RMODAL			^{KET} 9 28912	<u> </u>	CELL	
CUSTOMER 0147	55 55	k Contra	atore				ARRY C. OU 2015 6:53	T - D am	rinda L. BATE/TIME OUT 09-10-2015	7:13 am
3919 Mary	88th	ST NE	2270			VEHICLE LEA	ARCREEK		CONTAINER	
LW-1	L5171	e, wa 90	5270			BILL OF LADIN	IG		IN	VOICE
	SCALE SCALE	E IN E OUT	GROSS WEIGHT TARE WEIGHT	107,520 40,220	NET NET W	TONS MEIGHT	33.65 67,300		INBOUND	
<u>ату.</u> 0.00	UNIT	TRACKIN		ESCRIPTION			RATE	EXTENSI	ON TAX	TOTAL
33.65	TN	SW-CONT	SOIL W/FUEL	ISSAQUA	H/KING					
							••••			NET AMOUNT
										TENDERED,
The	e undersigr the reverse	ned individual sig side and that he	ning this document on behalf or she has the authority to sig	of Customer acknowledges on this document on behalf	that he or she of the custom	e has read and u er.	understands the term	s and conc	litions	CHANGE

SIGNATURE

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CUSTOMER 0147 Clea 3919 Mary LW-1	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA STOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171 SCALE IN GROSS WEIGHT 46,640 SCALE OUT TARE WEIGHT 26,720 I					SITE TIC 01 WEIGHMASTE DATE/TIME IN 03-16- VEHICLE 25 SPR1 REFERENCE BILL OF LADI	KET # 929111 FR Finda L. 2015 8:2 LNGBROOK	CELL OUT <u>(Sim</u> 23 am 09= CONT	7 <mark>11/11 E OUT 16 – 2015 AINER</mark> IN\	8:35 ar VOICE
(SCALE SCALE	IN OUT	GROSS WEIGHT TARE WEIGHT	46,640 26,720	NET NET WI	TON S EIGHT	9.96 19,920		INBOUND	
QTY.	UNIT		DESC	CRIPTION			RATE	EXTENSION	TAX	TOTAL
0.00 9.96	YD TN	TRACKI: SW-CON'	NG QTY F SOIL W/FUEL	ISSAQU	JAH/KING					
Th	e undersign the reverse	ed individual s side and that	signing this document on behalf of he or she has the authority to sign	Customer acknowledge this document on behavior	ges that he or sl half of the custor	ie has read and ner.	d understands the t	erms and conditions	s	CHANGE
									l	CHECK#

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SITE CUSTOMER 01475 Clear 3919 Marys LW-15	5 cree 88th sville 5171	REGIONAL DISPOSAL INTER 3rd and lander Seattle, WA - k Contractors ST NE e, WA 98270	MODAL		SITE 01 WEIGHMAS Drind DATE/TIME 09-18 VEHICLE 43 CL REFERENCE BILL OF LA	ICKET # 929237 STER a L. IN -2015 10:5 EARCREEK EE	2 am 09- con	DATE/TIME OUT 09-18-2015 11:10 CONTAINER INVOICE		
	SCALE SCALE	IN GROSS WEIGHT OUT TARE WEIGHT	61,360 42,140	NET NET W	TONS Elight	9.61 19,220		INBOUND		
	UNIT	DES	SCRIPTION			RATE	EXTENSION	ТАХ	TOTAL	
0.00 9.61	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQU <i>i</i>	AE/KING						
Th	e undersi the rever	gned individual signing this document on behalf o se side and that he or she has the authority to sig	of Customer acknowled In this document on bel	ges that he or sh half of the custor	ne has read ner.	and understands the t	erms and condition	ns	NET AMOUNT TENDERED CHANGE CHECK#	

SIGNATURE ___

TE USTOMER 01475	5 creek	REGIONAL DISPOSAL INTERM 3rd and lander Seattle, WA -	IODAL -		SITE TICKE 01 WEIGHMASTER IN - Dr: DATE/TIME IN 07-21-20 VEHICLE SOIL	1# 926063 inda L. (015 7:39	DUT - JAMIE DUT - JAMIE DATE/TI 9 am 07-2 CONTAL	15092.10 3 B. Me OUT 1-2015 NER	7:48 ar
3919 Marys LW-15	88th ville	ST NE , WA 98270			REFERENCE 44 CLEAI BILL OF LADIN	RCREEK		INVO	DICE
	SCALE SCALE	IN GROSS WEIGHT OUT TARE WEIGHT	105,460 40,460	NET NET N	TONS WEIGHT	32.50 65,000	I	NBOUND	TOTAL
		DES	SCRIPTION			+			1
0.00 32.50	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQUA	ΑΗ/KING					
								-	TENDERED
		individual signing this document on behal	f of Customer acknowle	dges that he c	r she has read ar	nd understands the	e terms and condition	IS F	CHECK

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE

SITE REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA 014755 Clearcreek Contractors 3919 88th ST NE Marysyille, WA 98270	SITE TICK 01 WEIGHMASTE IN - Dr DATE/TIME IN 07-21-2 VEHICLE SOIL REFERENCE 44 CLE/ BILL OF LAD	er # 926075 R cinda L. OI 2015 9:25 ARCREEK	JT - TAMIE DATE/TII am 07-2 CONTAI	B NE OUT 1-2015 NER INV(9:32 am DICE
LW-15171 SCALE IN GROSS WEIGHT 106,660 SCALE OUT TARE WEIGHT 40,040	NET TONS NET WEIGHT	33.31 66,620 RATE	EXTENSION	INBOUND	TOTAL
QTY. UNIT DESCRIPTION 0.00 YD TRACKING QTY 33.31 TN SW-CONT SOIL W/FUEL ISSA	AQUAH/KING				NET AMOUNT
The undersigned individual signing this document on behalf of Customer ack on the reverse side and that he or she has the authority to sign this documen	nowledges that he or she has read t on behalf of the customer.	d and understands the	terms and conditio	ins	TENDERED CHANGE CHECK#

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RS-F042UPR (07/12)

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SITE CUSTOMER 01475 Clear 3919 Marys LW-15	55 cree} 88th sville	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA Contractors ST NE 2, WA 98270	SITE 01 WEIGHM, IN - DATE/TIN 07-2 VEHICLE SOIL REFERE! 44 BILL OF	TICKET # 926084 ASTER Drinda L. HE IN 1-2015 10:5 NCE CLEARCREEK LADING	OUT - JAMIE DATE/TIN 3 am 07-21 CONTAIN	B. -2015 IER _INV(11:02 am DICE
	SCALE SCALE	IN GROSS WEIGHT 108,4 OUT TARE WEIGHT 40,1	00 NET TONS .00 NET WEIGHT	34.15 68,300	IN	BOUND	
	UNIT	DESCRIPTION		RATE	EXTENSION	ΤΑΧ	TOTAL
0.00 34.15	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQUAH/KING				
	L						NET AMOUNT
						-	TENDERED
		and the second on her life of Custome	r acknowledges that he or she has rea	ad and understands the	terms and conditions		CHANGE
TI O	he unders n the reve	gned individual signing this document on benait of Custome se side and that he or she has the authority to sign this doc	ument on behalf of the customer.			-	CHECK#

SIGNATURE _____

		THE PLODOCAL INTER	MODAL	SITE 01	TICKET # 926095	CELL		
ITE	Ι	REGIONAL DISPOSAL INTER 3rd and lander Seattle, WA		WEIGHI IN DATE/T	ASTER - Kim L. OUT MEIN	- Drinda I DATE/TI	ме оит 1-20151	12:27 pm
O14755	5 maak	Contractors		07-2 VEHICL 44	E CLEAR CREEK	CONTAI	NER	
3919 Marys	88th ville	ST NE , WA 98270		REFER BILL O	ENCE		INVC	DICE
LW-15	171 SCALE	IN GROSS WEIGHT	106,940	NET TON NET WEIGH	5 33.34 IT 66,680	I	NBOUND	
	SCALE	OUT TARE WEIGHT	40,200		RATE	EXTENSION	ТАХ	TOTAL
	UNIT	0	ESCRIPTION					
0.00 33.34	0.00 YD TRACKING QTY 3.34 TN SW-CONT SOIL W/FUEL ISSAQUAH/K			JAH/KING				
								NET AMOUNT
							-	TENDERED
		the second of he	half of Customer acknow	ledges that he or she ha	s read and understands th	e terms and condition	ns	CHANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has on the reverse side and that he or she has the authority to sign this document on behalf of the customer. SIGNATURE _____

RS-F042UPR (07/12)

SITE		REGIONA	AL DISPOSAL INTER	RMODAL		01	926116			
		0	3rd and lander			VEIGHMAS	TER Ravlene W.	OUT - Dri	nda L.	
CUSTOMER		Sea	ttie, wa			DATE/TIME	IN IN	DATE/I		0.10 mm
01475	5					07-21-	-2015 1:4	3 pm 07-2	1-2015	pit
Clear	cree	< Contra	ctors			44 CLE	EAR CREEK			
3919	88th	ST NE	0770			REFERENC	E		TNV	OTCE
Marys LW-1	5171	e, wa s	0270			BILL OF LA	DING			
	SCALE	IN	GROSS WEIGHT	108,500	NET	TONS	34.12			
	SCALE	OUT	TARE WEIGHT	40,260	NET WE	IGHT	68,240	I	NBOUND	
	LINUT		D	SCRIPTION			RATE	EXTENSION	ΤΑΧ	TOTAL
0.00		TRACKT	NG OTY							
34.12	TN	SW-CON	r soil W/FUEL	ISSAQU	JAH/KING					
	L						······			NET AMOUNT
										TENDERED
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							2150	12.10.3	0
SITE		DECTON			SITE	TICKET #	CELL		
		REGION	AL DISPOSAL INIE	RMODAL	01	926065			
		0	3rd and tander		WEIGHM			P D	
CUSTOMER		Sea	ITTIE, WA			<u>Drinda L.</u> Mein			
0147	= c				07-2	1-2015 7:5	66 am 07-2	21-2015	8:01 am
01473 Class)) 	le Contre	atora		VEHICLE		CONT	AINER	
2010	00+h	CT NE	actors		SOIL				
3919 Marin	00L11		00070		REFERE				
Marys	50111	e, wa s	90270		4 <u>3</u> C.			1 N V	OICE
LW-1	5171					EADING			
	SCALE	EIN	GROSS WEIGHT	107.000	NET TONS	33.63			
	SCALE	E OUT	TARE WEIGHT	39.740	NET WEIGHT	67,260	т	NBOUND	
×	-								
QTY.	UNIT		C	ESCRIPTION		HATE	EXTENSION		TOTAL
0.00	YD	TRACKI	NG QTY						
33.63	ΤN	SW-CON	T SOIL W/FUEL	ISSAQU	JAH/KING				1
							· · · · · · · · · · · · · · · · · · ·		NET AMOUNT
								\vdash	TENDERED
									CHANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _

Seattle, WAINTERTINGEDATE/TIME OUTCUSTOMER01475501475507-21-20159:40 am97-21-20159:4O14755Clearcreek ContractorsSOILCONTAINERCONTAINER391988th ST NEREFERENCE43 CLEARCREEKINVOICEMarysville, WA98270BILL OF LADINGINVOICE	<u>5 an</u>
SCALE IN GROSS WEIGHT 95,780 NET TONS 28.07 SCALE OUT TARE WEIGHT 39,640 NET WEIGHT 56,140 INBOUND	
DESCRIPTION RATE EXTENSION TAX	TOTAL
0.00 YD TRACKING QTY 28.07 TN SW-CONT SOIL W/FUEL ISSAQUAH/KING	
	AMOUNT
TE	IDERED
The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions	HANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE

SITE REGIONAL DISPOSAI 3rd and la Seattle, WA 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171	_ INTERMODAL ander 	SITE 01 WEIGHMA IN - DATE/TIN 07-2 VEHICLE 43 C REFERE BILL OF	TICKET # 926099 ASTER Kim L. OUT ME IN 1-2015 12:3 LEARCREEK NCE LADING	- Drinda L DATETII 1 pm 07-21 CONTAIN	-2015 NER INV	12:48 рт 0ICE
SCALE IN GROSS W SCALE OUT TARE W	EIGHT 100,300 EIGHT 39,680	NET TONS NET WEIGHT	30.31 60,620	11	1BOUND	
	DESCRIPTION		RATE	EXTENSION	TAX	TOTAL
0.00 YD TRACKING QTY 30.31 TN SW-CONT SOIL W/F	UEL ISSAQUAH	I/KING				
				L		NET AMOUNT
						TENDERED
		os that he or she has i	read and understands the	e terms and conditions		CHANGE
The undersigned individual signing this docu on the reverse side and that he or she has th	iment on behalf of Customer acknowledg e authority to sign this document on beha	alf of the customer.			ŀ	CHECK#

SIGNATURE _____

SITE		PROTONIAL DICDOCAL INTERMODAL		SITE	TICKET #	c	ELL	
		3rd and lander		WEIGHM	ASTER			
		Seattle, WA		IN -	Drinda L.	<u>- OUT - J</u> Ic	AMIE B	
CUSTOMER				07-2	1-2015 11:	04 am _0	7-21-2015	<u>11:11 am</u>
01475	55			VEHICLE		c	CONTAINER	
Clear	ccree	CONTRACTORS		SOLL				
3919 Marus	88tn 	SINE WA 98270		B CI	EARCREEK		INV	OICE
.Marys	5V±±±5 5171	, NA 302,0		BILL OF	LADING			
T-M-T	51/1			(
	SCALE	IN GROSS WEIGHT 98,	440 NET	TONS	29.35			
	SCALE	OUT TARE WEIGHT 39,	740 NET W	EIGHT	58 , 700		INBOUND	
<u> </u>	LINUT	DESCRIPTION			RATE	EXTENSIO	N TAX	TOTAL
		TRACKING OTY						
0.00		SW-CONT SOLL W/FUEL	ISSAOUAH/KING					
29.33	1 IN	SW-CONT BOTH W/TOHE	~					
	2							
	1							
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l in the second s								1
								NET AMOUNT
							-	TENDERED
							ŀ	CHANGE
т	he unders	ioned individual signing this document on behalf of Custom	ner acknowledges that he or s	she has rea	ad and understands th	e terms and con	ditions	. UNANGE
0	on the reve	rse side and that he or she has the authority to sign this do	cument on behalf of the custo	omer.				CHECK#

SIGNATURE ____

SITE		DECIONAL DISPOSAL INTERMODAL	SITE	тіскет # 926068	CELL		
		3rd and lander	WEIGHN	ASTER Drinda L. (DUT - JAMIE	св.	
		Seattle, WA		ME IN 1 - 2015 8 • 0 ⁻	7 am 07-2	IME OUT 1-2015	8:19 am
01475	5		VEHICL		CONTA	INER	
Clear 3919	creek 88th	ST NE	REFER	NCE		INV	DICE
Marys	ville	, WA 98270	BILL OF				
	SCALE SCALE	IN GROSS WEIGHT 104,840 OUT TARE WEIGHT 40,440	NET TONS NET WEIGH	32.20 F 64,400	I	NBOUND	
	141.07	DESCRIPTION		RATE	EXTENSION	TAX	TOTAL
0.00	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL ISS	AQUAH/KING				
							NET AMOUNT
						-	TENDERED
						-	CHANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _

SITE CUSTOMER 01475 Clear 3919 Marys LW-11	55 ccree 88th svill 5171	REGIONAL DISPOSAL INTE 3rd and lander Seattle, WA Contractors ST NE 2, WA 98270	CRMODAL		SITE TIC 01 WEIGHMAST IN - D DATECTIME I 07-21- VEHICLE SOIL REFERENCE 10 WIN BILL OF LAN	CKET # 926078 TER Orinda L. 2015 10:0 Z015 10:0 TER DING	CELL OUT - JAMI DATE/ 2 am 07-2 CONT/	E B. TIME OUT 21-2015 AINER INV	10:12 aπ 0ICE
	SCALE SCALE	IN GROSS WEIGHT OUT TARE WEIGHT	100,200 40,220	NET NET W	TONS EIGHT	29.99 59,980	I	NBOUND	
	UNIT		DESCRIPTION			RATE	EXTENSION	TAX	TOTAL
0.00 29.99	YD TN	TRACKING QTY SW-CONT SOIL W/FUEL	ISSAQUA	AH/KING					
	l								NET AMOUNT
									TENDERED
							town and conditions	. ⊢	CHANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE __

					SITE TICKE	T #	CELL		
SITE		REGIONAL DISPOSAL INTE 3rd and lander	RMODAL		UI WEIGHMASTER IN - Kim	926090 1 L. OUT	- Drinda	L. /TIME OUT	11.59.20
		Seallie, MA			07-21-20	15 11:4	7 am 07-	21-2015 TAINER	11:59 all
01475	5	a treators			10 BUD V	VINTER			
Clear	creeK 88th	ST NE			REFERENCE			INV	OICE
Marys	sville	e, WA 98270			BILL OF LADIN	G			
LW-1	5171)					
	SCALE	IN GROSS WEIGHT	101,300	NET NET W	TONS EIGHT	30.02 60,040		INBOUND	
	SCALE	OUT TARE WEIGHT	41,200			RATE	EXTENSION	TAX	TOTAL
	UNIT		DESCRIPTION						
0.00	YD	TRACKING QTY	ISSAQUA	H/KING					
30.02	TN	SW-CONT SOIL W/FOLL							
									NET AMOUNT
									TENDERED
i.					che has read al	nd understands th	e terms and condit	ions	CHANGE
	The under	rsigned individual signing this document on b	ehalf of Customer acknowled to sign this document on bel	ges that he of half of the cus	tomer.				CHECK#
1.	on the rev	erse side and marine er entre							

SIGNATURE _____

RS-F042UPR (07/12)

SITE CUSTOMER 01475 Clear 3919 Marys LW-15	5 creek 88th sville	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA Contractors ST NE , WA 98270	SITE 01 WEIGHI IN DATET 07-2 VEHICL SOI FREFER 10 V BILL O	TICKET # 9261 - Raylene - Raylene 1-2015 E SINTER TR - LADING	05 W. OUT - 1:16 pm UCKING	CELL Drinda L. DATE/TIME OUT 07-21-2015 CONTAINER IN	1:30 cm NVOICE
	SCALE SCALE	IN GROSS WEIGHT 127,1 OUT TARE WEIGHT 10,7	NET TONS	5 43 T 86,	.19 380	INBOUND	
	UNIT	DESCRIPTION		RAT	E EXTENS	ION TAX	TOTAL
0.00	YD	TRACKING QTY	· · · · · · · · · · · · · · · · · · ·				
43.19	TN	SW-CONT SOIL W/FUEL	ISSAQUAH/KING				
	I						NET AMOUNT
							·
		1					TENDERED
Th	e undersig	ned individual signing this document on behalf of Custome	er acknowledges that he or she has re ument on behalf of the customer.	ad and understan	ds the terms and co	onditions	CHANGE
on	the revers	e side and that he or she has the authority to sign this doct					CHECK#

SIGNATURE _____

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CUSTOMER 01475 Clear 3919 Marys LW-1	55 rcree 88th svill 5171	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA k Contractors ST NE e, WA 98270	SITE 01 WEIGHMAST IN - D DATE/TIME I 07-21- VEHICLE SOIL REFERENCE 10 SPR BILL OF LAC	CKET # 926071 ER rinda L. 2015 8:40 INGBROOK	CELL DUT - JAMI Daten Dam 07-2 CONTA	E B. IME OUT 1-2015 INER INV	8:52 am OICE
	SCALE SCALE	IN GROSS WEIGHT 99,980 N OUT TARE WEIGHT 42,140 NET	ET TONS F WEIGHT	28.92 57,840	II	NBOUND	
QTY.	UNIT	DESCRIPTION		RATE	EXTENSION	ТАХ	TOTAL
0.00	YD	TRACKING QTY					
							NET AMOUNT
							TENDERED
Th	e undersig the revers	ned individual signing this document on behalf of Customer acknowledges that he se side and that he or she has the authority to sign this document on behalf of the cu	or she has read and ustomer.	d understands the ter	ms and conditions		CHANGE
							CHECK#

SIGNATURE __

SITE CUŞTOMER 014755 Clearcreek 3919 88th S Marysville, LW-15171	REGIONAL DISPOSAL INTERMODAL 3rd and lander <u>Seattle, WA</u> Contractors ST NE WA 98270	SITE TICK 01 WEIGHMASTE IN - Dr DATE/TIME IN 07-21-2 VEHICLE SOIL REFERENCE 10 SPRI BILL OF LADII	er# 926082 R 015 10:3 NGBROOK	CELL OUT - JAMIF DATE/TI 5 am 07-2 CONTAI	5 B. IME OUT 1-2015 NER INV	10:44 am OICE
SCALE SCALE	IN GROSS WEIGHT 104,240 N OUT TARE WEIGHT 41,140 NET	ET TONS WEIGHT	31.55 63,100	II	NBOUND	
	DESCRIPTION		RATE	EXTENSION	ТАХ	TOTAL
0.00 YD 7 31.55 TN 5	TRACKING QTY SW-CONT SOIL W/FUEL ISSAQUAH/KIN	IG				
						TENDERED
The undersign	ed individual signing this document on behalf of Customer acknowledges that he side and that he or she has the authority to sign this document on behalf of the c	or she has read and ustomer.	I understands the te	erms and conditions		CHANGE
						CHECK#

SIGNATURE

			ſs	ITE	TICKET #	CELL		
SITE		REGIONAL DISPOSAL INTERMODAL			926093			
		3rd and lander		<u>IN</u>	Kim L. OUT	- Drinda L		
		Seattle, WA		ATE/TIM	EIN 1 2015 12.07	07-21	-2015	12:09 pm
				<u>) / - 2]</u> /EHICLE	L-2015 12:02		NER	
Clearc	, creek	Contractors		10 SI	PRINGBROOK			
3919 8	38th	ST NE	F	REFEREN	NCE		INVC)ICE
Marysv	ville	, WA 98270		BILL OF				
LW-15	171							
Y		GROOG NEICHE 100 68	O NET 7	TONS	29.73			
S	CALE	IN GROSS WEIGHT 100,00	NET WE	IGHT	59,460	II	1BOUND	
	SCALE	OUI TARE WEIGHT 41,22			RATE	EXTENSION	TAX	TOTAL
QTY.	UNIT	DESCRIPTION						
0.00	YD	TRACKING QTY						
29.73	ΤN	SW-CONT SOIL W/FUEL	224Ãnaul VINA					
							-	NET AWOONT
								TENDERED
					and understands the	terms and conditions		CHANGE

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

SITE CUSTOMER 01475 Clear 3919 Marys LW-15	REGIONAL DISPOSAL INTERMODAL 3rd and lander <u>Seattle, WA</u> USTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171				SITE TIC 01 WEIGHMASTI IN - R DATE/TIME IN 07-21-2 VEHICLE 10 SPR REFERENCE BILL OF LAD	KET # 926109 ER aylene W. 2015 1:2 INGBROOK	OUT - Drin DATE/T 5 pm 07-2 CONTA	nda L. IME OUT 1-2015 INER INVI	1:52 pm 0ICE
	SCALE SCALE	IN OUT	GROSS WEIGHT TARE WEIGHT	109,040 41,060	NET TONS NET WEIGHT	33.99 67,980	I	NBOUND	
	UNIT		<u>ام</u>	ESCRIPTION		RATE	EXTENSION	TAX	TOTAL
0.00 33.99	YD TN	TRACKI SW-CON	NG QTY T SOIL W/FUEL	ISSAQU	AH/KING				
Th	ne undersig	ned individua se side and that	I signing this document on behal at he or she has the authority to s	f of Customer acknowle	dges that he or she has read ar ehalf of the customer.	nd understands the	terms and conditions		NET AMOUNT TENDERED CHANGE

SIGNATURE __
REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA CUSTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171 SCALE IN GROSS WEIGHT 107,480 SCALE OUT TARE WEIGHT 41,140 NE						SITE TICI 01 WEIGHMASTE IN - DJ DATE/TIME IN 07-21-2 VEHICLE SOIL REFERENCE 25 SPRI BILL OF LADI	KET # 926070 FR 2015 8:3 NGBROOK NG	OUT - JAM DATE 5 am 07- CONT	TIME OUT 21-2015 AINER INV	8:47 am OICE
	SCALE SCALE	IN OUT	GROSS WEIGHT TARE WEIGHT	107,480 41,140	NET NET W	TONS EIGHT	33.17 66,340		NBOUND	
QTY.	UNIT		D	SCRIPTION			RATE	EXTENSION	TAX	TOTAL
0.00 33.17	YD TN	TRACKI SW-CON	NG QTY T SOIL W/FUEL	ISSAQU	JAH/KING					
Th	ne undersig	gned individua	I signing this document on behalf	of Customer acknowle	dges that he or sh	e has read and	I understands the t	erms and condition		NET AMOUNT TENDERED CHANGE

SIGNATURE ____

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RS-F042UPR (07/12)

				SITE	TICKET #	CELL		
SITE		REGIONAL DISPOSAL INTERMOL		WEIGHN	ASTER			
		Seattle, WA		IN -	Drinda L. C MEIN		MEOUT	10.20 pm
CUSTOMER				07-2	1-2015 10:26	am 07-2	<u>1-2015</u>	10:38 all
01475	5			SOTI	Ξ.	CONTA		
Clear	cree}	Contractors		REFER	NCE			OTCE
3919 Marve	88tn wille	SINE 98270		<u>25 S</u>	PRINGBROOK		<u></u>	
Marys	VIII 171			BILL O				
TM-T:)				21 67			
	SCALE	IN GROSS WEIGHT 10	04,480 NE	T TONS	T 63 340	I	NBOUND	
	SCALE	OUT TARE WEIGHT	41,140 NET	WEIGH	1 05,540		TAY	
≻T		DESCR	IPTION		RATE	EXTENSION	144	
QTY.		TDACKING OTY						
0.00	YD	GW-CONT SOIL W/FUEL	ISSAQUAH/KING	5				
31.0/	TN	SW-CONT BOTT, TTT						
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	ļ							
							1	NET AMOUNT
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							F	TENDERED
							ŀ	CHANGE
			Customer acknowledges that he	or she has	read and understands the	terms and condition	s	
1	he under	signed individual signing this document on behalf of	this document on behalf of the c	ustomer.			f	CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she ha on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE

SITE CUSTOMER 014755 Clearcr 3919 88 Marysvi LW-1517	REGIONA Sea eek Contra th ST NE lle, WA	AL DISPOSAL INTER 3rd and lander ttle, WA - actors 98270	MODAL		TE TICK 01 EIGHMASTE N - Ra ATE/TIME IN 7-21-2 EHICLE 25 SPRJ EFERENCE	ET # 926115 R Jylene W. 015 1:4 INGBROOK	OUT - Dr DAT 0 pm 07- CON	inda L. E/TIME OUT -21-2015 ITAINER INV	2:17 pπ ΟΙCE
SC.	ALE IN ALE OUT	GROSS WEIGHT TARE WEIGHT	105,880 41,180	NET 1 NET WE	CONS IGHT	32.35 64,700		INBOUND	
						RATE	EXTENSION		+
0.00 Y 32.35 T	TRACKI	NG QTY IT SOIL W/FUEL •	ISSAQU	AH/KING					NET AMOUNT
The	undersigned indivic he reverse side and	iual signing this document on beh that he or she has the authority to	alf of Customer acknowl sign this document on	edges that he or s behalf of the custo	he has read mer.	and understands th	ne terms and cond	itions	TENDERED CHANGE CHECK#

RS-F042UPR (07/12)

SIGNATURE __

SITE		REGION	AL DISPOSAL INTE	RMODAL		SITE TICH	KET # 926091	CELL		
		0	3rd and lander			WEIGHMASTE		- Drinda	т	
CUSTOMER		Sea	ittle, WA			DATE/TIME IN	LIII L. 001			
01475	55					07-21-2	2015 11:5	4 am 07-2	21-2015	12:05 pm
Clear	rcree	k Contra	actors			25 SPRI	INGBROOK	CONTA	AINER	
3919	88th	ST NE	0070			REFERENCE		I		
Marys	svill	e, WA 9	98270						INV	OICE
LW-1.	5171						NG			
	SCALE	E IN	GROSS WEIGHT	100,300	NET	TONS	29.35			
	SCALE	E OUT	TARE WEIGHT	41,600	NET W	EIGHT	58 , 700	I	NBOUND	
QTY.	UNIT	[D	ESCRIPTION			RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKI	NG QTY							
29.35	TN	SW-CON'	T SOIL W/FUEL	ISSAQU	JAH/KING					
	1									
										NET AMOUNT
										TENDERED
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The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

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	REGION	AL DISPOSAL INTER 3rd and lander ttle, WA -	MODAL		ITE TIC 01 VEIGHMASTI IN - RA DATE/TIME IN	KET # 926117 ER aylene W. 2015 1.	OUT -	Drinda L.	2:2
014755 Clearcr 3919 88 Marysvi	reek Contr 8th ST NE .lle, WA	actors 98270		V 4 B	EHICLE 3 CLEA INFERENCE	ARCREEK		CONTAINER	IVOICE
	CALE IN CALE OUT	GROSS WEIGHT TARE WEIGHT	105,800 39,400	NET TO NET WEI	ONS GHT	33.20 66,400		INBOUND	
QTY. UN	нт	DE	SCRIPTION			RATE	EXTENSIO	N TAX	Т
33.20	YD TRACKJ IN SW-CON	NG QTY NT SOIL W/FUEL	ISSAQU	UAH/KING					
						2140	58.30		TENI
The und	dersigned individua	I signing this document on behalf at he or she has the authority to sid	of Customer acknowled	dges that he or she shalf of the custome	has read an r.	d understands the	terms and cond	litions	СН
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SITE		REGIONA	AL DISPOSAL INT	IERMODAL	SITE 01	тіскет # 926120		CELL	
		Sea	3rd and lander		WEIGHM	ASTER			
CUSTOMER						<u>ene W.</u> Mein 1-2015 3.	27 mm	DATE/TIME OUT	4 • 2
014/	55	le Contra	atora		VEHICLE	<u> </u>	2 / pm	CONTAINER	
sqiq	88+h	ST NE	actors		25 S	PRINGBROOK			
Marv	svill	e, WA S	98270		REFERE	NCE		IN	VOICE
LW-1	5171				BILL OF	LADING			
<u> </u>	SCAL	E IN	GROSS WEIGH	T 98,720	NET TONS	28.97			
	SCAL	E OUT	TARE WEIGH	T 40,780	NET WEIGHT	57,940		INBOUND	
	UNIT			DESCRIPTION		RATE	EXTENSI	ON TAX	т
0.00	YD	TRACKI	NG QTY						
						21	1058.	30	NET A
									TEN
тт	ne undersiç	ned individual	signing this document on be	ehalf of Customer acknowle	dges that he or she has rea	d and understands the	terms and con	ditions	СНА
		se side and that	i ne or sne nas the authority /21	to sign this accument on b				ľ	СН

RS-F042UPR (07/12)

SIGNATURE ____

SITE CUSTOMER 0147 Clea: 3919 Mary: LW-1	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA CUSTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171 SCALE IN GROSS WEIGHT 90,440 SCALE OUT TARE WEIGHT 40,080 QTY. UNIT DESCRIPTION						CKET # 926256 TER 2015 8:5 AR CREEK	CELI C - Drinda DATI 55 am 07- CON	- 24–2015 rainer IN	9:5 VOICE
	SCAL SCAL	E IN E OUT	GROSS WEIGHT TARE WEIGHT	90,440 40,080	NET NET WI	TONS EIGHT	25.18 50,360		INBOUND	
	UNIT		DES	SCRIPTION			RATE	EXTENSION	TAX	Т
25.18	YD TN	SW-CON	NG QTY T SOIL W/FUEL	ISSAQU	JAH/KING					
Th	e undersig	gned individual	signing this document on behalf of	of Customer acknowled	2 dges that he or s	14058 he has read ar	.30 nd understands the	terms and condition	s	
	the revers	se side and that	t he or she has the authority to sig	In This document on be		mer.			t	СН

SITE		REGIONA Sea	AL DISPOSAL INTER 3rd and lander ttle, WA -	MODAL		(SITE TIC 01 WEIGHMAST IN - J DATE/TIME I	CKET # 926173 ER CAMIE B.	<u> 0UT - D</u>	cell rinda L. DATE/TIME OUT	
01475 Clean 3919 Marys LW-15	55 rcree 88th sville 5171	k Contra ST NE e, WA S	actors 98270			07-23- VEHICLE 25 SPR REFERENCE BILL OF LAC	2015 8: INGBROOK	50 am	07-23-2015 CONTAINER) 9:4 NVOICE
	SCALI SCALI	E IN E OUT	GROSS WEIGHT TARE WEIGHT	128,000 41,340	NET NET W	TONS EIGHT	43.33 86,660		INBOUN	D
ΔΤΥ.	UNIT		DES	SCRIPTION			RATE	EXTENSIO	ON TAX	т
43.33	TN	SW-CON	T SOIL W/FUEL	ISSAQU	JAH/KING					
Ťħ	e undersig	ned individual	signing this document on behalf c	of Customer acknowled	iges that he or s	214 he has read ar	4058.3	terms and con	ditions	TEN
on RS-F042UI	on the reverse side and that he or she has the authority to sign this document on bet				half of the custo	mer.				СН

SITE CUSTOMER 0147 Clea 3919 Mary LW-1	55 rcree} 88th sville 5171	REGIONA Sea Contra ST NE S, WA	L DISPOSAL INTER 3rd and lander ttle, WA - actors 08270	MODAL		SITE TIC 01 WEIGHMAST JN - J DATE/TIME II 07-23- VEHICLE 26 SPR REFERENCE BILL OF LAD	2015 8: ING	OUT - D 59 am	CELL DATE/TIN 07-23 CONTAIN	L ne out 3-2015 IER I N	9:4 VOICE
·	SCALE SCALE	E IN E OUT	GROSS WEIGHT TARE WEIGHT	116,500 42,040	NET NET W	TONS EIGHT	37.23 74,460		I	NBOUND	
	UNIT		DES	CRIPTION			RATE	EXTENSI	ON	TAX	T
0.00 37.23	YD TN	TRACKI SW-CON	NG QTY T SOIL W/FUEL	ISSAQU	JAH/KING						NET A
Th	e undersig	ned individual	signing this document on behalf o he or she has the authority to sig	of Customer acknowled	iges that he or s half of the custo	she has read ar mer.	ZI4DSE nd understands the	B. 30 terms and cor	nditions		TENE
on	THE LEVELS	e side and triat	/24								CH

SITE	αφ.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	REGION	AL DISPOSAL INTER 3rd and lander ttle, WA -	MODAL		SITE THE OLD SITE THE OLD SITE THE OLD SITE SITE SITE SITE SITE SITE SITE SITE	CKET # 926131 FER	OUT - Kir	2 ELL	
0147 Clea 3919 Mary: LW-1	014755 Clearcreek Contractors 0919 88th ST NE Marysville, WA 98270 .W-15171 SCALE IN GROSS WEIGHT 92,280 SCALE OUT TARE WEIGHT 40,160					DATE/TIME I 07-22- VEHICLE 43. CL.F. REFERENCE BILL OF LAD	NALLS DI 2015 11: ARCREEK	22 am 0	ÄTEÄTIME OUT 7–22–2015 ONTAINER IN	
	SCALI SCALI	E IN E OUT	GROSS WEIGHT TARE WEIGHT	92,280 40,160	NET T NET WEI	'ONS IGHT	26.06 52,120		INBOUND	
0.00	YD TN	TRACKI SW-CON	DES NG QTY T SOIL W/FUEL	ISSAQU	JAH/KING		BATE	EXTENSION	TAX	
The on t	undersign the reverse	ned individual s e side and that	signing this document on behalf of he or she has the authority to sign	Customer acknowledge this document on beh	ges that he or she nalf of the custome	has read and r.	2,140 d understands the t	ISB. 36 Perms and conditi	ons	NET AN TEND CHA

SITE REGIONAL DISPOSAL INTER 3rd and lander Seattle, WA - CUSTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270	MODAL	SITE TICKET # CELL 01 926128 WEIGHMASTER IN - JAMTE B. OUT - Drinda I DATE/TIME IN DATE/TIME 07-22-2015 9:58 am 07-22- VEHICLE 43 CLEARCREEK REFERENCE BILL OF LADING NET TONS 23.85 NET WEIGHT 47.700 INB					
LW-15171		BILL OF LAD					
SCALE IN GROSS WEIGHT SCALE OUT TARE WEIGHT	87,980 40,280	NET TONS NET WEIGHT	23.85 47,700	INBOUND			
0.00 YD TRACKING QTY 23.85 TN SW-CONT SOIL W/FUEL	ISSAQU	AH/KING		TAX			
			21405	8.30			
on the reverse side and that he or she has the authority to sign	t customer acknowledge this document on beha	es that he or she has read and if of the customer.	understands the terms a	nd conditions	CHAN		

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RS-F042UPR (07/12)

SITE CUSTOMER 0147 Clea 3919 Mary LW-1	Alegional Disposal Intermodal 3rd and lander Seattle, WA USTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171 SCALE IN GROSS WEIGHT 108,260 N SCALE OUT TARE WEIGHT 39,680 NET GTY. UNIT DESCRIPTION 0.00 YD TRACKING QTY 34.29 TN SW-CONT SOIL W/FUEL ISSAQUAH/KI						KET# 926138 FR rinda L. 2015 12:3 ARCREEK	OUT - Kin DAT 9 pm 07- COM	12:54 pm VOICE	
	SCAL SCAL	E IN E OUT	GROSS WEIGHT TARE WEIGHT	108,260 39,680	NET T NET WE	FONS IGHT	34.29 68,580	444 <u>4</u>	INBOUND	
ατγ.	UNIT	98700	DES	CRIPTION			RATE	EXTENSION	TAX	TOTAL
34.29	TN	SW-CON	F SÕIL W/FUEL	I SSAQU.	AH/KING					
							21400 2	2		NET AMOUNT
						2	217030.3	V		TENDERED
The on	e undersig the revers	ned individual si se side and that h	igning this document on behalf of ne or she has the authority to sign	Customer acknowledge this document on beha	es that he or she alf of the custome	has read and er.	understands the ter	ms and condition	s	CHANGE
RS-F042UF	PR (07/12	2/2	1	SI				<u>.</u>	(CHECK#

STE . REGIONAL DISPOSAL INTERM 3rd and lander Seattle, WA CUSTOMER 014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171	ODAL	SITE TICK 01 WEIGHMASTEF IN - JAI DATE/TIME IN 07-22-20 VEHICLE 25 SPRI REFERENCE BILL OF LADIN	ET# 926132 MIE B. OU 015 10:26 NGBROOK	JT - Kim L DATE/TI 5 am 07-2 CONTAI	IME OUT 2-2015 INER INV	11:40 am 0ICE
SCALE IN GROSS WEIGHT SCALE OUT TARE WEIGHT	87,040 42,260 N	NET TONS ET WEIGHT	22.39 44,780	Π	IBOUND	
QTY. UNIT DESC	RIPTION		RATE	EXTENSION	TAX	TOTAL
0.00 YD TRACKING QTY 22.39 TN SW-CONT SOIL W/FUEL	ISSAQUAH/KI	ING				
						TENDERED
The undersigned individual signing this document on behalt of C on the reverse side and that he or she has the authority to sign t	customer acknowledges that I his document on behalf of the	ne or she has read and u e customer.	understands the term	ns and conditions		CHANGE
RS-F042UPR (07/12)	SIGNATU	RE				CHECK#

Appendix J – Post-Remedial Action Well Logs

<u>Bori</u>	ng Location: -	Drilling Cor	Company: Environmental Bore Hole Dia.: 6"				Τ		_										
Тор	Elevation: -	Drilling Me	thod:	Ho	llow	Ste	m A	۹ug	er	Ho	amr	ner	Тур	e:				٧W	-1A
Date	<u>> Drilled:</u> 11/20/2015	<u>Drill Rig:</u>		Tru	ıck	Mou	nteo	b		Lo	gge	ed b	<u>y:</u>	-	IST		\perp		
	SOIL DESCRIPTION		er l	F	PEN	IET	RA	TIC	N	RE	SIS	ТА	NC	E (k	olows	/foot))	S	
ŧ			Wat			Stan	dar	d P	ene	trati	ion	Tes	t					ount	bu
epth	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to	ADF N Recov	pur	2	Δ Ι	Ham	me	r W	'eigl	ht a	nd l	Drop	o:					Ŭ ≩	-esti
Ō	report text and appendices for additional information.	Sar SA	Jo U	Ĭ				20					40					Blo	н
- 0 -		<u> </u>			11			20)	11			40				-00 	-+	
	3 to 4 inches of asphalt	1 T																	
┝	Loose, moist, tan, sandy GRAVEL (Fill). No obvious	/											+						
F	Soft, very moist, blue-gray, SILT with trace fine sand. No																		
- 5 -	Soft, very moist, mottled green and light brown, SILT with trace fine sand. No obvious hydrocarbon odor noted.	S3)/15															0	
╞	Soft, wet, gray, SILT with some fine-medium sand. No obvious hydrocarbon odor noted.																		
\vdash																			
10	Exploration completed at 10 feet.	- →	*==-* 										+				+		
\vdash	Groundwater observed at approximately 3 feet ATD.												+						
\vdash					$\left \cdot \right $								+						
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⊢	4																		
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.	SAMPLE LEGEND GROUNDWATER LEGEND Task Loop Image: Standard						\tilde{c}	י ג ה ר	% F	ines	5 (<	0.07	/5 n	nm)					
:	L 2-inch O.D. split spoon sample 				- 1			. ر	% v I	Vate	er (r	Nois	sture	э) С I	onte	nt			
.	3-inch I.D. Shelby tube sample 🔛 Bentonite				Рю	istic	Lin	nit .	-			,		٦.	Liqu	id Li	mit		
	Grout/Concrete							N	latu		Wa	ter v	Con	tent					
	Screened Casing						_		Br		IS	sa	quo	ah			~	_	
	TESTING KEY Blank Casing				52	210	F	Lo	ike	S	am	imo	am	ish	Pk	wy	SE	Ξ	
	GSA = Grain Size Analysis → time of drilling (ATD) or	r	<u> </u>						IS	saa	qu	ah,	VV	'A _	· .			100/	
	200W = 200 Wash Analysis ¹ / ₂ on date of measurement		Date:	-									-	Pro	oject	t No	.:	1099	9.25
	Consol. = Consolidation Test Att. = Atterberg Limits		Z i 19	i pp 902:	er 333	Ge 6th	o A	Аs э. V	5 00 V, S	c ia Suit	tes e D	5	E	30 L	RI OC	NG 3:	۱ ^ز	۸W	-1A
					ц,		000	u,	•• ~	`					P	o n n e	<u>م 1 د</u>	of 1	

Boriı	ng Location: -	Drilling Co	Company: Environmental Bore Hole Dia.: 6"																
<u>Top</u>	Elevation: -	Drilling Me	thod:	Ho	llow	/ Ste	em A	luge	er	Ha	Imm	ner -	Тур	e:				лW	-4A
Date	<u>Drilled:</u> 11/20/2015	<u>Drill Rig:</u>		Τrι	ıck	Mou	nteo	ł		Lo	gge	d by	<u>y:</u>	-	ST				
	SOIL DESCRIPTION	<u>ه</u> ا	ter	F	PEN	IET	RA	τιο	N F	RES	SIS	ΤΑΙ	NC	E (t	lows	/foot))	ts	
h (ft)	The stratification lines represent the approximate boundaries	PLE:	Ň	4		Stan	dar	d Pe	enet	ratio	on ⁻	Fest	t					oun	ting
bept	between soil types. The transition may be gradual. Refer to	AMF Reco	pun	4	7	Ham	me	r We	eigh	t ar	nd D	rop): 					∑ ≷	Test
	report text and appendices for additional information.	N N	Gro					20				2	40				60	B	
0 -	3 to 1 inches of Asnhalt	 															Ť		
	Loose, moist grading to wet, tan, gravelly SAND with trace silt		8 √ 8																
	(Fill). No obvious hydrocarbon odor noted.																		
			/20/15																
- 5 -		- _{S1}																0	
	Soft, very wet, gray SILT with trace fine sand. No obvious hydrocarbon odor noted.				ļ													-	
10																			
	Exploration completed at 10 feet.																		
	Groundwater observed at approximately 2.5 feet ATD.																		
15																			
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-	SAMPLE LEGEND GROUNDWATER LEGEND							ンッ つ。	6 FI	nes	(<().07	5 m	nm)					
ĪŦ	2-inch O.D. split spoon sample 🔯 Clean Sana				וח			ץ <i>ק</i> גיי ו	6 VV	ate	r (Ⅳ	10151	ture	э) С Ц		nt :			
					PI	ISUC	LIII	ис Г N	atur	al V	V at	or C	-	ר topt	Liqui	a Li	mit		
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1					51	010	F	م ا	DIV ka	יו <i>ר</i> כר	153 mr	su(mo	u) up	ull ich	راط	140.4	C	=	
1	$GSA = Grain Size Analysis \qquad \forall Groundwater level at$				J	- 10		Lu	∧ط دد	SC SC	4111 1110	nnu 1h	1111 W	ιзι ΙΔ	ΓK	.vv y	50	-	
	200W = 200 Wash Anglysis		Date.	-					13.	Juc	144	<u></u> ,	•••	Pro	iect	No		1099	9.25
1	Consol. = Consolidation Test													20			•••		
Att. = Atterberg Limits Zipper Geo Associates 19023 36th Ave. W. Suite D				JU I	кII 00		'N	1W	4 A										
1		Lynnwood, WA					\vdash	L		Jane	1.1	of 1							

Bori	ng Location: -	Drilling Cor	Company: Environmental Bore Hole Dia.: 6"				Τ								
<u>Top</u>	<u>Elevation:</u> -	Drilling Me	<u>thod:</u>	Hol	ow St	em A	uger	H	amm	er T	ype:			MV	V-5
Date	<u>Drilled:</u> 11/20/2015	<u>Drill Rig:</u>	1	Tru	ck Mou	unted		Lo	ogge	d by:	-	JST		_	1
	SOIL DESCRIPTION	<u>ا</u> ا	fer	P	ENET	RA	ΓΙΟΝ	I RE	SIST	ΓΑΝ	CE	(blows	s/foot)	lts	
h (ff	The stratification lines represent the approximate houndaries	DLE:	۸a		Sta	ndarc	l Per	netrat	ion T	est				Coun	ting
Jept	between soil types. The transition may be gradual. Refer to	AMF Reco	pund		Han	nmer	Wei	ght a	ind D	rop:					Test
	report text and appendices for additional information.	S V	Gro	0			20			4(0			풉	
0 -	3 to 4 inches of Asphalt			Ì										+	
		ή Ι												-	
	Loose, moist grading to wet, tan, sandy GRAVEL with trace														
	SIIT (FIII). NO ODVIOUS NYAFOCAFDON OAOF NOtea.							+		+					
			20/15											-	
- 5 -				\square										-1	
	Soft, wet, light brownish gray, SILT with some fine sand, little	- 32												Ŭ	
	coarse sand near contact. No obvious hydrocarbon odor noted.														
10	<u> </u>														
	Exploration completed at 10 feet.	-												_	
	Glouidwater observed at approximately 2.5 rest ATD.														
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15														1	
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20														-	
25	<u>.</u>														
	SAMPLE LEGEND GROUNDWATER LEGEND					\$	> %	Fines	s (<0	.075	mm)			
Ι.	2-inch O.D. split spoon sample 🔛 Clean Sand					С) %	Wate	er (M	oistu	ure) (Conte	ent		
	🛿 3-inch I.D. Shelby tube sample 🛛 🔀 Bentonite				Plastic	: Lim	it 占		0		\neg	Liqu	uid Lin	nit	
	Grout/Concrete						Na	tural	Wate	er Co	onten	t			
	Screened Casing						E	BMC	lss	saq	uah	l			
	TESTING KEY Blank Casing				5210) E	Lak	e S	amı	mar	nis	h Pl	kwy	SE	
	GSA = Grain Size Analysis → Groundwater level at time of drilling (ATD) or	r					I	ssa	qua	ıh, ۱	WA				
	200W = 200 Wash Analysis on date of		Date:	-							Pr	ojec	t No.	: 109	9.25
	Consol. = Consolidation Test Att. = Atterberg Limits		Z i 19	i pp 9023	er Ge 36th	eo A Ave	SSC	S uit	tes te D		BC L)RI .00	NG G:	MV	V -5
1		Lynnwood, WA Page 1 of					1 of 1								

Appendix K – Post Remediation Groundwater Contour Maps



BMC ISSAQUA	Н	
5210 East Lake Sammamis	h Parkway SE	
Issaquah, Washin	gton	
DECEMBER 2015 GRO	UNDWATER	{
ELEVATIONS AND C	ONTOURS	
DATE: JANUARY 2017	Job No.	1099.25
Zipper Geo Associates, LLC	FIGURE	0
19023 36th Ave. W.,Suite D Lynnwood, WA	SHT. 1 of 1	8







Appendix L – Post-Remediation Groundwater Quality Results



December 16, 2015

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On December 11th, 5 samples were received by our laboratory and assigned our laboratory project number EV15120103. The project was identified as your 1099.25. 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

Page 1
ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp dba ALS Environmental



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	12/16/2 EV1512 EV1512	015 20103 20103-01	
CLIENT CONTACT:	Jon Einarsen		D/	ATE RECEIVED:	12/11/2	015	
CLIENT PROJECT:	1099.25		COLI	LECTION DATE:	12/10/2	015 2:06:00	PM
CLIENT SAMPLE ID	MW-2		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	90.6				12/14/2015	PAB
TFT	EPA-8021	82.3				12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36		DATE: ALS JOB#: ALS SAMPLE#:	12/16/2 EV1512 EV1512	015 20103 20103-02	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-1A		D, COLI WDOE AC	ATE RECEIVED: LECTION DATE: CCREDITATION:	12/11/2 12/10/2 C601	015 015 2:46:00	PM
		SAMPLE	DATA RESULTS				
ΑΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	87.7				12/14/2015	PAB
TFT	EPA-8021	84.0				12/14/2015	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	12/16/2 EV1512 EV1512	015 20103 20103-03	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-5		D/ COLI WDOE AC	ATE RECEIVED: LECTION DATE: CCREDITATION:	12/11/2 12/10/2 C601	015 015 3:12:00	PM
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	88.6				12/14/2015	PAB
TFT	EPA-8021	85.5				12/14/2015	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D)36		DATE: ALS JOB#: ALS SAMPLE#:	12/16/2 EV1512 EV1512	015 20103 20103-04	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-4A		D/ COLI WDOE AC	ATE RECEIVED: LECTION DATE: CCREDITATION:	12/11/2 12/10/2 C601	015 015 3:37:00 I	PM
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	90.6				12/14/2015	PAB
TFT	EPA-8021	86.7				12/14/2015	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	12/16/2 EV1512 EV1512	015 20103 20103-05	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-3		D, COLI WDOE AC	ATE RECEIVED: LECTION DATE: CCREDITATION:	12/11/2 12/10/2 C601	015 015 4:00:00	PM
		SAMPLE	DATA RESULTS				
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS AN DATE	ALYSIS
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB
SURROGATE	METHOD	%REC				ANALYSIS AN DATE	ALYSIS BY
TFT	NWTPH-GX	85.7				12/14/2015	PAB
TFT	EPA-8021	86.6				12/14/2015	PAB

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CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates	DATE:	12/16/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15120103
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY BLANK RESULTS

MBG-121315W - Batch 99838 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	12/13/2015	PAB
U - Analyte analyzed for but	not detected at level above rep	orting limit.				

MB-121315W - Batch 99838 - Water by EPA-8021

				REPORTING	ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	UNITS	LIMITS	DATE	BY
Benzene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Toluene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Ethylbenzene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Xylenes	EPA-8021	U	UG/L	3.0	12/13/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates	DATE:	12/16/2015
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV15120103
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 99838 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	85.5			12/13/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	90.5	6		12/14/2015	PAB

ALS Test Batch ID: 99838 - Water by EPA-8021

METHOD	%REC	RPD	QUAL	DATE	ANAL 1 313 D I
EPA-8021	95.5			12/13/2015	PAB
EPA-8021	95.7	0		12/13/2015	PAB
EPA-8021	94.1			12/13/2015	PAB
EPA-8021	94.0	0		12/13/2015	PAB
EPA-8021	93.1			12/13/2015	PAB
EPA-8021	94.5	2		12/13/2015	PAB
EPA-8021	95.4			12/13/2015	PAB
EPA-8021	96.2	1		12/13/2015	PAB
	METHOD EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021 EPA-8021	METHOD %REC EPA-8021 95.5 EPA-8021 95.7 EPA-8021 94.1 EPA-8021 94.0 EPA-8021 93.1 EPA-8021 94.5 EPA-8021 94.5 EPA-8021 95.4 EPA-8021 95.4	METHOD EPA-8021 %REC 95.5 RPD EPA-8021 95.7 0 EPA-8021 94.1 EPA-8021 94.0 0 EPA-8021 93.1 EPA-8021 94.5 2 EPA-8021 94.5 2 EPA-8021 95.4 1 EPA-8021 95.4 2 EPA-8021 95.4 2 EPA-8021 95.4 1	METHOD %REC RPD_QUAL EPA-8021 95.5 EPA-8021 95.7 0 EPA-8021 94.1 EPA-8021 94.0 0 EPA-8021 93.1 EPA-8021 94.5 2 EPA-8021 95.4 EPA-8021 95.4	METHOD %REC RPD QUAL DATE EPA-8021 95.5 12/13/2015 12/13/2015 EPA-8021 95.7 0 12/13/2015 EPA-8021 94.1 12/13/2015 12/13/2015 EPA-8021 94.0 0 12/13/2015 EPA-8021 93.1 12/13/2015 12/13/2015 EPA-8021 94.5 2 12/13/2015 EPA-8021 94.5 1 12/13/2015 EPA-8021 95.4 12/13/2015 12/13/2015 EPA-8021 95.4 12/13/2015 12/13/2015 EPA-8021 96.2 1 12/13/2015

APPROVED BY

Laboratory Director

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Полнование Сутема Су	Phone H. W. BOLET ID: 1099.25 Family Sister 2500 Family Sister 2	ANTPH-DX MUTPH-DX MUTPH-DX MUTPH-GX MUTPH-	VISIZOIOS e / or / (Specify) NTAINERS
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10.	6		
	10.		

Received By:___

"Turnaround request less than standard may incur Rush Charges

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March 17, 2016

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On March 16th, 5 samples were received by our laboratory and assigned our laboratory project number EV16030125. The project was identified as your 1099.25. 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

Page 1
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:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	3/17/2016 EV16030125 EV16030125-01			
CLIENT CONTACT:	Jon Einarsen		D	ATE RECEIVED:	03/16/2016			
CLIENT PROJECT:	1099.25		COL	LECTION DATE:	3/16/20 ⁻	16 12:15:00 I	РΜ	
CLIENT SAMPLE ID	MW-2		WDOE AC	CCREDITATION:	C601			
		SAMPLE	DATA RESULTS					
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY	
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB	
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB	
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB	
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB	
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB	
						ANALYSIS A	NALYSIS	
SURROGATE	METHOD	%REC				DATE	BY	
TFT	NWTPH-GX	86.9				03/17/2016	PAB	
TFT	EPA-8021	99.3				03/17/2016	PAB	

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	3/17/2016 EV16030125 EV16030125-02		
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-1A		D COL WDOE A	DATE RECEIVED: COLLECTION DATE: WDOE ACCREDITATION:		03/16/2016 3/16/2016 12:40:00 PM C601	
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene Toluene Ethylbenzene	EPA-8021 EPA-8021 EPA-8021	UU	1.0 1.0 1.0	1 1 1	UG/L UG/L	03/17/2016 03/17/2016 03/17/2016	PAB PAB PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY
TFT	NWTPH-GX	88.8				03/17/2016	PAB
TFT	EPA-8021	104				03/17/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS						
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: 3/17 ALS JOB#: EV1 ALS SAMPLE#: EV1			3/17/2016 EV16030125 EV16030125-03		
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-5		D COL WDOE A0	ATE RECEIVED: LECTION DATE: CCREDITATION:	03/16/2016 3/16/2016 1:15:00 PM C601				
	-	SAMPLE	DATA RESULTS						
ΔΝΔΙ ΥΤΕ	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR		ANALYSIS A DATE	NALYSIS BY		
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB		
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB		
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB		
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB		
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB		
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY		
TFT	NWTPH-GX	89.6				03/17/2016	PAB		
TFT	EPA-8021	109				03/17/2016	PAB		

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	CERTIFIC	ATE OF ANALYSIS				
Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	3/17/20 EV1603 EV1603	16 80125 80125-04	
Jon Einarsen 1099.25 MW-4A		D. COL WDOE AG	ATE RECEIVED: LECTION DATE: CCREDITATION:	03/16/2 3/16/20 C601	016 16 1:35:00 P	М
	SAMPLE	DATA RESULTS				
METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A DATE	NALYSIS BY
NWTPH-GX EPA-8021	U	50 1.0	1	UG/L UG/I	03/17/2016	PAB PAB
EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
EPA-8021 EPA-8021	U U	1.0 3.0	1 1	UG/L UG/L	03/17/2016 03/17/2016	PAB PAB
METHOD	%REC				ANALYSIS A DATE	NALYSIS BY
NWTPH-GX	92.0 110				03/17/2016	PAB
	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980 Jon Einarsen 1099.25 MW-4A METHOD NWTPH-GX EPA-8021 EPA-8021 EPA-8021 EPA-8021 METHOD NWTPH-GX EPA-8021	CERTIFIC Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25 MW-4A EPA-8021 EPA-8021 EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U EPA-8021 U	CERTIFICATE OF ANALYSIS Zipper Geo Associates 19023 - 36th Ave W., Suite D 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen D. 1099.25 COL MW-4A WDOE AC SAMPLE DATA RESULTS METHOD RESULTS NWTPH-GX U 1.0 EPA-8021 U 1.0 EPA-8021 U 3.0 METHOD %REC NWTPH-GX NWTPH-GX 92.0 EPA-8021 EPA-8021 110 10	CERTIFICATE OF ANALYSIS Zipper Geo Associates DATE: 19023 - 36th Ave W., Suite D ALS JOB#: Lynnwood, WA 98036 ALS SAMPLE#: Jon Einarsen DATE RECEIVED: 1099.25 COLLECTION DATE: MW-4A WDOE ACCREDITATION: METHOD RESULTS METHOD RESULTS NWTPH-GX U 10 EPA-8021 U 10 EPA-8021 U 10 U 1.0 1 EPA-8021 U 3.0 1 METHOD %REC 1 1 NWTPH-GX 92.0 110 1	CERTIFICATE OF ANALYSIS Zipper Geo Associates DATE: 3/17/20 19023 - 36th Ave W., Suite D ALS JOB#: EV1603 Lynnwood, WA 98036 ALS SAMPLE#: EV1603 Lynnwood, WA 98036 DATE RESUTES: EV1603 Jon Einarsen DATE RECEIVED: 03/16/2 Jon Einarsen DATE RECEIVED: 03/16/2 1099.25 COLLECTION DATE: 3/16/20 MW-4A WDOE ACCREDITATION: C601 SAMPLE DATA RESULTS METHOD RESULTS NWTPH-GX U 50 1 UG/L EPA-8021 U 1.0 1 UG/L EPA-8021 U 3.0 1 UG/L EPA-8021 U 3.0 1 UG/L METHOD %REC NWTPH-GX 92.0 EPA-8021 110 METHOD %REC LPA-8021 10 <t< td=""><td>CERTIFICATE OF ANALYSIS Zipper Geo Associates DATE: 3/17/2016 19023 - 36th Ave W., Suite D ALS JOB#: EV16030125 Lynnwood, WA 98036 ALS SAMPLE#: EV16030125-04 Jon Einarsen DATE RECEIVED: 03/16/2016 1099.25 COLLECTION DATE: 3/16/2016 1:35:00 P MW-4A WDOE ACCREDITATION: C601 SAMPLE DATA RESULTS METHOD REPORTING DILUTION METHOD RESULTS UNITS DATE METHOD RESULTS UGAL 01/00/2016 MWTPH-GX U 1.0 UNITS DATE METHOD RESULTS UNITS UNITS METHOD RESULTS UGAL UGAL 03/17/2016 METHOD %REC ANALYSIS A METHOD %REC O NWTPH-GX 92.0 03/17/2016</td></t<>	CERTIFICATE OF ANALYSIS Zipper Geo Associates DATE: 3/17/2016 19023 - 36th Ave W., Suite D ALS JOB#: EV16030125 Lynnwood, WA 98036 ALS SAMPLE#: EV16030125-04 Jon Einarsen DATE RECEIVED: 03/16/2016 1099.25 COLLECTION DATE: 3/16/2016 1:35:00 P MW-4A WDOE ACCREDITATION: C601 SAMPLE DATA RESULTS METHOD REPORTING DILUTION METHOD RESULTS UNITS DATE METHOD RESULTS UGAL 01/00/2016 MWTPH-GX U 1.0 UNITS DATE METHOD RESULTS UNITS UNITS METHOD RESULTS UGAL UGAL 03/17/2016 METHOD %REC ANALYSIS A METHOD %REC O NWTPH-GX 92.0 03/17/2016

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	3/17/20 EV1603 EV1603	16 0125 0125-05	
CLIENT CONTACT: CLIENT PROJECT: CLIENT SAMPLE ID	Jon Einarsen 1099.25 MW-3		D. COL WDOE AG	ATE RECEIVED: LECTION DATE: CCREDITATION:	03/16/20 3/16/20 C601	016 16 1:55:00 P	М
		SAMPLE	DATA RESULTS				
	METHOD	DESIII TS	REPORTING LIMITS	DILUTION FACTOR		ANALYSIS A DATE	
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS A DATE	NALYSIS BY
TFT	NWTPH-GX	86.5				03/17/2016	PAB
TFT	EPA-8021	103				03/17/2016	PAB

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CLIENT:	Zipper Geo Associates	DATE:	3/17/2016
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV16030125
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Jon Einarsen		
CLIENT PROJECT:	1099.25		

U

U

LABORATORY BLANK RESULTS

MBG-031616W2 - Batch 102321 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS By
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	03/16/2016	PAB
U - Analyte analyzed for but r MB-031616W2 - Batch	not detected at level above rep 102321 - Water by E	orting limit. PA-8021				
ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	03/16/2016	PAB
Toluene	EPA-8021	U	UG/L	1.0	03/16/2016	PAB

UG/L

UG/L

1.0

3.0

PAB

PAB

03/16/2016

03/16/2016

U - Analyte analyzed for but not detected at level above reporting limit.

Ethylbenzene

Xylenes

EPA-8021

EPA-8021

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CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 102321 - Water by NWTPH-GX

				LIM	ITS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD QUA	AL MIN	MAX	DATE	
TPH-Volatile Range - BS	NWTPH-GX	78.1		66.5	122.7	03/16/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	79.5	2	66.5	122.7	03/16/2016	PAB

ALS Test Batch ID: 102321 - Water by EPA-8021

	·····			LIN	IITS	ANALYSIS	ANALYSIS BY	
SPIKED COMPOUND	METHOD	%REC	RPD QUAL	MIN	MAX	DATE		
Benzene - BS	EPA-8021	100		83	120	03/16/2016	PAB	
Benzene - BSD	EPA-8021	102	2	83	120	03/16/2016	PAB	
Toluene - BS	EPA-8021	104		85	115	03/16/2016	PAB	
Toluene - BSD	EPA-8021	105	2	85	115	03/16/2016	PAB	
Ethylbenzene - BS	EPA-8021	103		85	113	03/16/2016	PAB	
Ethylbenzene - BSD	EPA-8021	104	1	85	113	03/16/2016	PAB	
Xylenes - BS	EPA-8021	103		85	116	03/16/2016	PAB	
Xylenes - BSD	EPA-8021	105	2	85	116	03/16/2016	PAB	

APPROVED BY

3/17/2016

C601

EV16030125

Laboratory Director

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ALS	-

Laboratory Analysis Reducet Chain Of Custody/

(Laboratory Use Only)

ALS Job#

Fax (425) 350- Fax (425) 356- http://www	zouu 2626 w.alsglobal.r	mod				, •) 1 1	5				オキ		1 100	202	2	
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PROJECT ID: 1099.75					ANALYS	IS RE	OUE	<u>TED</u>							0	THER (Specify	(
COMPANY: 202													(s				
PROJECT Jon Giversor	,										VIS 02] JAT		aren				
ADDRESS: 19023 36tul	ير. بر	s. Suit	ر ک								EPA-82	5			[]] 1SƏ/				(
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PHONE: 425 982 99 28	FAX:					•	09	560	vater)		√d sb	808 A			104-111			SE	TIQV
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SAMPLE I.D.	DATE	TIME	ТҮРЕ	LAB#	TWN TWN	NWTI WWTI XƏTB	Iatm	golsH Haloy	EDB	EDB '	ime2 2vlo3	ЬСВ	Metal	Metal				NUN	ЗЭЯ
1. Nw-2	91AVE	12:15pm	Μ	1		X												6	
2. MW-1A		12:40m	*7057300.000	Ц		ΥX												Ц	
3. MW-S	a di si dan se ganta di si se	1:15000		η		Y Y		-										6	
4. Mw-44	licency and	1:35pm		4		X V												6	
5. MW-3	Þ	1:55pm		S		<												4	
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6.																	-		
10.																			
SPECIAL INSTRUCTIONS																			
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Organic, Metals & Inorganic Analysis
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 Fuels & Hydrocarbon Analysis
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Received By:_

*Turnaround request less than standard may incur Rush Charges

Specify:

SAME DAY



June 15, 2016

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On June 10th, 6 samples were received by our laboratory and assigned our laboratory project number EV16060078. The project was identified as your 1099.25. 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

Jagur-

Rick Bagan Laboratory Director

Page 1
ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 9820 | PHONE 425-356-2600 | FAX 425-356-2626
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CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates N., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/201 EV1606 EV1606	l6 0078 0078-01	
CLIENT CONTACT:	Jon Einarsen		D	ATE RECEIVED:	06/10/20	016	
CLIENT PROJECT:	1099.25		COLI	LECTION DATE:	6/10/201	6 9:50:00 /	۹M
CLIENT SAMPLE ID	Drum B-1		WDOE AC	CREDITATION:	C601		
		SAMPLE	DATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	390	50	1	UG/L	06/14/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/14/2016	PAB
Toluene	EPA-8021	2.8	1.0	1	UG/L	06/14/2016	PAB
Ethylbenzene	EPA-8021	1.4	1.0	1	UG/L	06/14/2016	PAB
Xylenes	EPA-8021	13	3.0	1	UG/L	06/14/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	87.9				06/14/2016	PAB
TFT	EPA-8021	86.3				06/14/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit. Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/20 [.] EV1606 EV1606	16 0078 0078-02	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25			ATE RECEIVED: LECTION DATE:	06/10/20 6/10/20	016 16 11:15:00) AM
CLIENT SAMPLE ID	101003-6/10	SAMPLE	DATA RESULTS	SCREDITATION:	C601		
			REPORTING	DILUTION			
ANALYTE TPH-Volatile Range	METHOD NWTPH-GX	RESULTS	50	1		06/13/2016	PAR
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	85.7				06/13/2016	PAB
TFT	EPA-8021	85.4				06/13/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/20 [.] EV1606 EV1606	16 0078 0078-03	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25			ATE RECEIVED: LECTION DATE:	06/10/20 6/10/20	016 16 1:30:00	PM
CLIENT SAMPLE ID	MVV2-6/10	SAMPI F	WDUE AU	CCREDITATION:	C601		
			REPORTING	DILUTION			
ANALYTE TPH-Volatile Range	METHOD NWTPH-GX	U	50	1	UNITS UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	88.6				06/13/2016	PAB
TFT	EPA-8021	86.1				06/13/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/20 ⁷ EV1606 EV1606	16 0078 0078-04	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		D/ COLI	ATE RECEIVED: LECTION DATE:	06/10/20 6/10/20	016 16 1:10:00	PM
CLIENT SAMPLE ID	MW1A-6/10		WDOE AC	CCREDITATION:	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	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.1				06/13/2016	PAB
TFT	EPA-8021	83.2				06/13/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/20 [,] EV1606 EV1606	16 0078 0078-05	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25			ATE RECEIVED: LECTION DATE:	06/10/20 6/10/20	016 16 12:23:00) PM
CLIENT SAMPLE ID	IVIV/5-6/10	SAMPLE	DATA RESULTS	SCREDITATION:	C601		
	METHOD		REPORTING	DILUTION	10.000	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UNITS UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.6				06/13/2016	PAB
TFT	EPA-8021	84.4				06/13/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates W., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	6/15/20 ⁷ EV1606 EV1606	16 0078 0078-06	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		D, COL	ATE RECEIVED: LECTION DATE:	06/10/20 6/10/201	016 16 11:50:00) AM
CLIENT SAMPLE ID	MW4A-6/10		WDOE AC	CCREDITATION:	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	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.6				06/13/2016	PAB
TFT	EPA-8021	85.4				06/13/2016	PAB

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CLIENT:	Zipper Geo Associates	DATE:	6/15/2016
	19023 - 36th Ave W., Suite D	ALS SDG#:	EV16060078
	Lynnwood, WA 98036	WDOE ACCREDITATION:	C601
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		

LABORATORY BLANK RESULTS

MBG-061016W - Batch 105302 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS By
TPH-Volatile Range	NWTPH-GX	U	UG/L 0/2016 PAB	50		
U - Analyte analyzed for but r	not detected at level above rep	orting limit.				
MB-061016W - Batch 10	05302 - Water by EP	A-8021				
ANALYTE	METHOD	RESULTS	UNITS	LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	06/10/2016	PAB
Toluene	EPA-8021	U 0	16UG/L PAB	1.0		
Ethylbenzene	EPA-8021	U	10/21051/6L PAB	1.0		
Xylenes	EPA-8021	U Of	16 UG/LPAB	3.0		

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25	

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 105302 - Water by NWTPH-GX

					LIMI	TS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	MIN	MAX	DATE	
TPH-Volatile Range - BS	NWTPH-GX	94.7			66.5	122.7	06/10/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	96.5	2		66.5	122.7	06/15/2016	PAB

ALS Test Batch ID: 105302 - Water by EPA-8021

	·····				LIN	NITS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	MIN	MAX	DATE	
Benzene - BS	EPA-8021	91.1			83	120	06/10/2016	PAB
Benzene - BSD	EPA-8021	92.3	1		83	120	06/10/2016	PAB
Toluene - BS	EPA-8021	94.1			85	115	06/10/2016	PAB
Toluene - BSD	EPA-8021	92.7	2		85	115	06/10/2016	PAB
Ethylbenzene - BS	EPA-8021	95.7			85	113	06/10/2016	PAB
Ethylbenzene - BSD	EPA-8021	96.9	1		85	113	06/10/2016	PAB
Xylenes - BS	EPA-8021	99.1			85	116	06/10/2016	PAB
Xylenes - BSD	EPA-8021	100	1		85	116	06/10/2016	PAB

APPROVED BY

6/15/2016

C601

EV16060078

Laboratory Director

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SAMPLE LD. DATE TIME THE LAB# WW M M	Sameterio. Dare Type Typ	ADDRESS:					H-DX H-HCID	XD-H	A93 Yo	V beten Organic	DC PA	latile Or	morA oik	EPA 80	Ofher (S	J siste	_			O HER O
1. Drum B-1 b/10 9:50 H20 1 ×	1. $Drum B-1$ $b/10$ $P:SO$ H_2O I X	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	INTPI	AWTPH AWTPH	JERTN	-aloge alitelo	9/80	genivo	ολολιος	ACB P	Aletals	CLP-A		_		AUME
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3. $mu2-b/10$ 1:30 3 $\times \times$ \times	3. $MW2$ - $b/10$ 1:30 3 \times \sim \times \times	2. MW3-6/10	-	11:15	-	2		×		-				-						-
4. $MWIA - b/t0$ 1::10 4. $\times \times$ 1<:10	4. $MWIA - 6/10$ 1:10 4. \times 7. π \times \sim	3. MW2- 6/10		1:30		m		×				-		-					-	
6. $MWS - b/10$ 12:23 S × × N <td>$6. MWS - b/10$ $12:23$ S \times × \times \times × \sim × \times × \sim × \times × \times × \times × \times × \sim × \times × \sim ×</td> <td>4. MWIA-6/10</td> <td></td> <td>01:1</td> <td></td> <td>4</td> <td></td> <td>×</td> <td></td> <td>-</td>	$6. MWS - b/10$ $12:23$ S \times × \times \times × \sim × \times × \sim × \times × \times × \times × \times × \sim × \times × \sim ×	4. MWIA-6/10		01:1		4		×												-
6. MW4A-b/10 V 11:50 V 6 ×× 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6: MW 4A - b/10 V E X × V <thv< th=""> <thv< th=""> <thv< th=""></thv<></thv<></thv<>	5. mw5-6/10		12:23		5		× ×												
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10. Special INSTRUCTIONS CC Jeff on email	10. SPECIAL INSTRUCTIONS CC JEFF on email SIGNATURES (Name Company, Date, Time): SIGNATURES (Name Company, Date, Time): 1. Relinquished Bv: 264 & 6-10-16	9.																		
special instructions CC Jeff on email	SPECIAL INSTRUCTIONS CC JEFF on email SIGNATURES (Name Company, Date, Time): [1. Relinations of the Start of Signatures Company, Date, Time): [264] (20-16], [2. Company, Date, Time): [2. Company, Date	10.								-		-								
	SIGNATURES (Name Company, Date, Time): 1. Relinquished Bv: 264 & 6-10-16	SPECIAL INSTRUCTIONS CO	A-P	on e	mail															
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September 8, 2016

Mr. Jon Einarsen Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 7th, 5 samples were received by our laboratory and assigned our laboratory project number EV16090032. The project was identified as your 1099.25. 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

Jager

Rick Bagan Laboratory Director

Page 1
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CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 98	ates N., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	9/8/2016 EV1609 EV1609	3 0032 0032-01	
CLIENT CONTACT:	Jon Einarsen		D	ATE RECEIVED:	09/07/20	016	
CLIENT PROJECT:	1099.25		COL	LECTION DATE:	9/7/2016	6 9:24:00 A	М
CLIENT SAMPLE ID	MW3-090716		WDOE AC	CCREDITATION:	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	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.0				09/07/2016	PAB
TFT	EPA-8021	88.1				09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	9/8/2016 EV1609 EV1609	6 0032 0032-02	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25 MW/40-090716			TE RECEIVED: ECTION DATE:	09/07/20 9/7/2016	016 6 10:26:00 A	۹
CLIENT SAMPLE ID	MW4A-090716	SAMPLE	E DATA RESULTS	CREDITATION.	001		
	METHOD		REPORTING	DILUTION FACTOR		ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	95.9				09/07/2016	PAB
TFT	EPA-8021	95.0				09/07/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	9/8/2016 EV1609 EV1609	6 0032 0032-03	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		D/ COLI	ATE RECEIVED: LECTION DATE:	09/07/20 9/7/2016	016 6 11:08:00 /	۹M
CLIENT SAMPLE ID	MW5-090716			CCREDITATION:	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	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	94.8				09/07/2016	PAB
TFT	EPA-8021	90.6				09/07/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	9/8/2016 EV1609 EV1609	6 0032 0032-04	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		D/ COLI	ATE RECEIVED: LECTION DATE:	09/07/20 9/7/2016)16 5 11:52:00 /	۹M
CLIENT SAMPLE ID	MW1A-090716		WDOE AC	CREDITATION:	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	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.6				09/07/2016	PAB
TFT	EPA-8021	89.9				09/07/2016	PAB

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		CERTIFIC	ATE OF ANALYSIS				
CLIENT:	Zipper Geo Associ 19023 - 36th Ave V Lynnwood, WA 980	ates V., Suite D 036		DATE: ALS JOB#: ALS SAMPLE#:	9/8/2016 EV1609 EV1609	6 0032 0032-05	
CLIENT CONTACT: CLIENT PROJECT:	Jon Einarsen 1099.25		D/ COLI	ATE RECEIVED: LECTION DATE:	09/07/20 9/7/2016	016 6 12:36:00 F	РΜ
CLIENT SAMPLE ID	MW2-090716	SAMDIE		CREDITATION:	C601		
		SAIVIF LL	REPORTING	DILUTION		ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.6				09/07/2016	PAB
TFT	EPA-8021	91.4				09/07/2016	PAB

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CLIENT: CLIENT CONTACT: CLIENT PROJECT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036 Jon Einarsen 1099.25	DATE: ALS SDG#: WDOE ACCREDITATION:	9/8/2016 EV16090032 C601	
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LABORATORY BLANK RESULTS

MBG-083116W2 - Batch 107649 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	08/31/2016	PAB
U - Analyte analyzed for but n MB-083116W2 - Batch 1	not detected at level above rep 107649 - Water by E	oorting limit. PA-8021		REPORTING		

				nEFONTING	ANALYSIS	ANALYSIS	
ANALYTE	METHOD	RESULTS	UNITS	LIMITS	DATE	BY	
Benzene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB	
Toluene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB	
Ethylbenzene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB	
Xylenes	EPA-8021	U	UG/L	3.0	08/31/2016	PAB	

U - Analyte analyzed for but not detected at level above reporting limit.

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CLIENT:	Zipper Geo Associates	DATE:
	19023 - 36th Ave W., Suite D	ALS SDG#:
	Lynnwood, WA 98036	WDOE ACCREDITATION:
CLIENT CONTACT:	Jon Einarsen	
CLIENT PROJECT:	1099.25	

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 107649 - Water by NWTPH-GX

					LIMI	TS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	MIN	MAX	DATE	
TPH-Volatile Range - BS	NWTPH-GX	88.3			66.5	122.7	08/31/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	82.2	7		66.5	122.7	08/31/2016	PAB

ALS Test Batch ID: 107649 - Water by EPA-8021

	·····				LIN	NITS	ANALYSIS	ANALYSIS BY
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	MIN	MAX	DATE	
Benzene - BS	EPA-8021	101			83	120	08/31/2016	PAB
Benzene - BSD	EPA-8021	100	0		83	120	08/31/2016	PAB
Toluene - BS	EPA-8021	96.4			85	115	08/31/2016	PAB
Toluene - BSD	EPA-8021	95.5	1		85	115	08/31/2016	PAB
Ethylbenzene - BS	EPA-8021	95.4			85	113	08/31/2016	PAB
Ethylbenzene - BSD	EPA-8021	96.5	1		85	113	08/31/2016	PAB
Xylenes - BS	EPA-8021	97.3			85	116	08/31/2016	PAB
Xylenes - BSD	EPA-8021	98.1	1		85	116	08/31/2016	PAB

APPROVED BY

9/8/2016

C601

EV16090032

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

www.alsglobal.com

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Page 8

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(ALS) rax (420) 3500-2020 http://www.alsglobal.com								ate _	1/7	16 Pag	Je /			f f]
PROJECT ID: 1049.25	ANALYSIS	REQUES	STED							OTHEF	(Spe	cify)				
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PROJECT MANAGER: JON EINEUSEN				· - · ·		IIS 027	081 🗌	TALL	hen [
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5. mw2-09071 \$ 12:36 & S	×	×													R	
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