AS-BUILT REPORT FOR BUNKER C SOIL REMOVAL

Pulp and Tissue Mill Remedial Action Unit, Georgia-Pacific West Site, Bellingham, Washington

Prepared for: Port of Bellingham

Project No. 140298-001-13 • April 11, 2016

Aspect CONSULTING

earth + water

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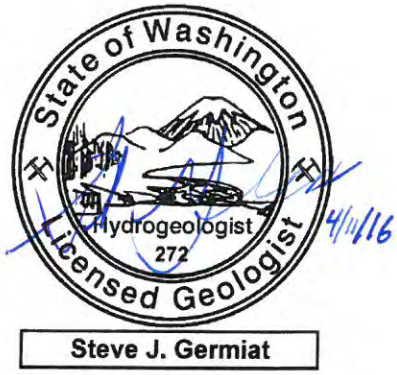

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1 Introduction

This report documents the soil removal action conducted within the Bunker C subarea of the Pulp and Tissue Mill Remedial Action (RAU) of the Georgia-Pacific West Site (Site) in Bellingham, Washington (Figure 1). This component of the Pulp and Tissue Mill RAU cleanup action permanently removed petroleum-contaminated soil that served as a potential source of contaminant migration to groundwater. The soil removal was conducted by the Port of Bellingham (Port) in accordance with the Cleanup Action Plan (CAP) (Washington State Department of Ecology [Ecology], 2014), which is Exhibit B to the 2014 Consent Decree No. 14-2-02700-8 between the Port and Ecology.

The project permanently removed 4,811 tons (about 3,200 cubic yards) of petroleum-contaminated soil from the RAU, thus achieving the groundwater protection source control objective of the CAP. In addition, the excavation backfill was constructed to meet the CAP's performance standards for RAU-wide capping, which, subject to long-term cap inspection and maintenance, achieves protection for the soil direct-contact and soil-erosion pathways.

2 Cleanup Action Goal

The goal of the Bunker C soil removal project was to remove all remaining soils with concentrations of total petroleum hydrocarbons (TPH, specifically Bunker C fuel oil) exceeding 10,000 milligrams per kilogram (mg/kg). The CAP defines 10,000 mg/kg TPH as the RAU-specific soil remediation level based on Bunker C oil residual saturation, and it is protective of groundwater quality. The CAP also defines a more stringent RAU-specific soil cleanup level of 3,100 mg/kg TPH, which is protective of all exposure pathways including unrestricted direct contact with soil. Protection from soil direct contact and erosion within the RAU will be achieved by RAU-wide capping, which is an additional component of the Pulp and Tissue Mill RAU cleanup action to be completed in summer 2016 and presented under separate cover.

Based on information presented in the *Engineering Design Report for the Bunker C Soil Removal* (EDR; Aspect, 2015a), the excavation targeted TPH-contaminated soil under and around the footprint of the former Georgia-Pacific Mill Steam Plant, adjacent to the Whatcom Waterway (area denoted as Bunker C Soil Removal Area on Figure 1).

3 Cleanup Action Activities and Methods

The cleanup contractor, selected by the Port through a publicly advertised, competitive bid process, was Strider Construction Co., Inc., of Bellingham, Washington (Contractor).

The Contractor performed the Project Site preparation; material removal, segregation, stockpiling, and loading; and material reuse or off-Site landfill disposal, in accordance with the Construction Plans (Plans) and Specifications (Port of Bellingham, 2015). Aspect served as the Port's Engineer, providing oversight of the Contractor and conducting monitoring to ensure compliance with the cleanup action goals. In addition, prior to start of excavation, an Aspect professional engineer decommissioned a monitoring well (BC-MW-101) located within the planned excavation, in accordance with the requirements of Chapter 173-160 Washington Administrative Code (WAC).

The soil removal project included the following field activities:

- Mobilization and Project Site preparation, and establishment of temporary erosion and sediment controls (TESC);
- Excavation dewatering followed by treatment and disposal of the water;
- Excavation, segregation, and stockpiling of soil, with care taken to protect the adjacent shoreline bulkhead throughout excavation;
- Performance monitoring by soil sampling and analysis to verify that the soil remediation level is achieved (cleanup action goal achieved);
- Overburden soil sampling and analysis to confirm overburden soils as contaminated or not;
- Management for reuse of uncontaminated concrete generated during excavation;
- Loading and off-Site disposal of contaminated soils and debris; and
- Excavation backfill and compaction, with the upper 2 feet of backfill meeting CAP performance standards for the RAU-wide cap.

These activities are briefly described in this section.

3.1 Mobilization and Site Preparation

In December 2015, the Contractor mobilized construction equipment and materials to the Project Site and began to prepare the Project Site for the cleanup action. As part of this, the Contractor implemented TESC to reduce runoff of sediment-laden or contaminated water from the Project Site.

In an approved variance from paragraph 2-02.2(2) in the Specifications, the stockpile area was not underlain with 10-mil-thick geomembrane. Instead, the Contractor constructed a bermed soil stockpile area on a smooth intact concrete slab, formerly the indoor floor of the Pulp Warehouse. The intact slab prevented infiltration of water from the stockpile area into the underlying soil. To prevent water from leaving the stockpile area, the Contractor constructed a 6-inch-high asphalt curb around the east and south perimeter of the stockpile area, and constructed berms of imported gravel borrow inside the curb. The little water that accumulated at the base of the curb was incorporated into contaminated soil in the stockpile and loaded out for landfill disposal.

3.2 Bulkhead Protection

An important consideration for this cleanup action was the proximity of the excavation to a bulkhead on the Whatcom Waterway. The exact location and construction details of the bulkhead were not known before excavation started, but the approximate location was known and was shown on the Plans ("GP Dock Bulkhead" on Figure 2). The Specifications required that the functionality of the bulkhead not be compromised during construction activities. The Specifications required that the Contractor stop work immediately if any part of the bulkhead, including tiebacks or other supporting structures, was encountered, and to then consult with the Port, Aspect, and Ecology regarding the path forward.

The bulkhead was encountered along much of the north edge of the excavation. The observed bulkhead included both a timber wall on the east side, and rip rap on the west side, of the excavation. The Contractor and Aspect devised construction methods that allowed removal of contaminated materials while protecting the function of the bulkhead. For example, excavation adjacent to the bulkhead was conducted at low tide to reduce the chance of influx of water from the Whatcom Waterway. On the east side of the excavation, contaminated soil was also successfully removed from between the top of the timber bulkhead and the bottom of the concrete deck[1]. The proposed approach for excavation adjacent to the bulkhead was discussed in an on-Site meeting that Ecology participated in.

Verification soil sampling and analysis indicates, that following excavation, soil adjacent to the bulkhead complies with the remediation level.

3.3 Dewatering and Management of Water

During excavation, the Contractor pumped water from sumps within the excavation in order to achieve unsaturated conditions, in accordance with the Specifications. Dewatering water was pumped from the excavation sumps to the Contractor's water treatment system.

In total, approximately 154,000 gallons of water were pumped from the excavation, through the Contractor's water treatment system, and to the Port's Aerated Stabilization Basin (ASB) pump station during the project. In accordance with the Specifications, the water treatment system included a 10,000-gallon settlement tank with weirs, a 20,000-gallon settlement tank with weirs, and an oil-water separator rated at 300 gallons per minute. Water was pumped through the settlement tanks in series and then through the oil-water separator.

Aspect monitored the discharge from the water treatment system for compliance with the Specifications' project water quality performance standards for discharge to the ASB (total settleable solids below 100 milliliters/liter, and no visible separate-phase oil). No exceedance of the water quality performance standards was observed. Table 3 presents the water quality monitoring data.

[1] Approximate extent of excavation under the deck is noted with a dashed line on Figure 2.

3.4 Material Excavation and Segregation

The excavation area was in the footprint of the former Steam Plant and, because of that, the at-grade surface consisted of floor slabs, machinery stands and pedestals, and building foundation elements constructed of steel-reinforced concrete. The Contractor had to remove this concrete material, about 985 tons, from the excavation area to access the contaminated soil. Based on prior investigation results (Aspect, 2015a), uncontaminated (overburden) soil was estimated to occur to a depth of about 7 feet below the surface, and contaminated soil was estimated to occur at depths from about 7 to about 15 feet below the surface.

During excavation, Aspect used visual and olfactory field screening to differentiate soils that appeared to be contaminated (TPH concentrations above remediation level) from potentially clean overburden (TPH concentrations below the remediation level). Soils determined to be contaminated based on field screening were not sampled. However, early in the excavation program, several samples of soil suspected but uncertain to exceed the remediation level were collected and analyzed to confirm whether they met the remediation level. This helped refine ("calibrate") subsequent field screening observations.

The presumed-uncontaminated overburden soil encountered below the concrete structures was excavated and separately stockpiled. The overburden stockpile area was paved and bermed, just as the contaminated stockpile area was, in the event that it needed to be managed as contaminated soil based on sampling results. The Contractor covered the overburden stockpiles with a geomembrane when they were not in use. Aspect sampled the overburden stockpiles as described in Section 3.6.

Contaminated soil was also stockpiled in the bermed area, and covered with a geomembrane when not in use, as described above.

After the soil was removed from the stockpile area, the Contractor steam cleaned the concrete slab that underlain the entire area. The wastewater that was generated by the steam cleaning was collected and pumped to the Contractor's water treatment system, and then conveyed to the ASB pump station.

During excavation, about 20 separate pipe sections were uncovered. Of these, two were found to contain oily residue; the rest appeared to have conveyed steam or water. The oily residue in the two pipe sections did not flow from the pipes. No indications of potential asbestos-containing material were observed. The pipe sections containing oily residue presumably had conveyed oil from the former Bunker C oil storage tank to the boilers in the Steam Plant. However, when the pipe sections were uncovered, they did not run all the way to the eastern sidewall of the excavation (nearest the storage tank), but were already broken or cut. The pipe sections with oily residue were removed from the excavation and recycled with other metal debris, as described below.

In addition, numerous wooden pilings that supported the Steam Plant foundation were encountered during excavation. The pilings were broken off at the base of the excavation, removed, and disposed of off-Site as contaminated material.

3.5 Performance Monitoring and Overexcavation

When field screening indicated that soils had been removed from a portion of the excavation to meet the remediation level, verification soil samples were collected from the excavation sidewall and bottom for laboratory analysis to confirm compliance with the remediation level. In accordance with the project-specific *Compliance Monitoring Plan* (CMP; Aspect, 2015b), the verification soil samples were collected within a 20-foot by 20-foot grid. Figure 2 shows the as-built excavation footprint with the verification sampling grid, with grid cells denoted by a letter-number combination (e.g., G7). Samples were named BCX-NNN, where NNN was a 3-digit number starting with 001. The BCX- prefix is excluded from sample locations on Figure 2 to improve legibility. Within each grid cell, at least one excavation bottom confirmation sample was collected. Sidewall confirmation samples were collected in each grid cell at 4-foot-depth intervals (e.g., 0 to 4 feet, 4 to 8 feet, 8 to 12 feet, etc.) across the depth of excavation sidewall.

Each verification soil sample was analyzed for diesel- and oil-range TPH using the NWTPH-Dx method with silica gel pretreatment, quantitated against a Bunker C standard. OnSite Environmental Laboratory, Inc. (OnSite), in Redmond, Washington, performed the laboratory analyses. OnSite's Redmond laboratory is accredited by Ecology to conduct the NWTPH-Dx analysis. Aspect's review of the analytical quality control information (method blank and surrogate recovery data) indicates that the NWTPH-Dx analytical data are of suitable quality for their intended use.

Of the 104 excavation verification soil samples collected, 11 samples exceeded the remediation level. The soils represented by the exceeding samples were subsequently overexcavated by 1 or 2 feet, and a new verification sample was then collected at those locations. In each case, analyses of the new samples indicated that the remediation level had been reached.

Residual soil TPH concentrations on the bottom of the excavation meet the RAU-specific 3,100 mg/kg TPH soil cleanup level for unrestricted direct contract; however, residual soil TPH concentrations in some locations on the excavation sidewalls exceed the cleanup level (but below the remediation level of 10,000 mg/kg). In accordance with the CAP, the excavation backfill was therefore constructed to serve as an environmental cap that achieves protection for soil direct contact, as described in Section 3.9.

Table 1 presents the excavation performance monitoring analytical data. Sample results exceeding the remediation level are highlighted in the table.

3.6 Overburden Stockpile Sampling and Disposition

The Contractor temporarily stockpiled on-Site about 1,180 cubic yards of overburden soil that Aspect's visual and olfactory field screening indicated had TPH concentrations below the remediation level). Aspect collected one representative five-point composite sample from each 100 cubic yards of stockpiled overburden, consistent with the CMP. Each overburden soil sample was analyzed for TPH using the NWTPH-Dx method with silica gel pretreatment, including quantification of the TPH as Bunker C. Aspect's review of the analytical quality control information indicates that the analytical data are of suitable quality for their intended use.

None of the samples of overburden soil contained a TPH concentration above the soil remediation level (Table 2). Therefore, all of the overburden material was reused as backfill in the excavation in accordance with the Specifications and CMP.

3.7 Managing Uncontaminated Concrete for Reuse

To access the contaminated material under the floor and foundation elements of the former Steam Plant, the Contractor was required to remove a considerable amount of steel-reinforced concrete structures. The material was broken up, removed from the excavation, and stockpiled. The Engineer used visual and olfactory screening to determine whether concrete was contaminated. Had that occurred, the contaminated concrete would have been stockpiled separately. In the end, no contaminated concrete was observed.

The uncontaminated concrete was crushed to 3-inch minus size, with removal of steel rebar, and then stockpiled on-Site for future use.

3.8 Off-Site Disposal of Excavated Material

In this cleanup action, 4,811 tons of petroleum-contaminated soil were removed and transported to the Greater Wenatchee Regional Landfill, a permitted Subtitle D landfill operated by Waste Management, Inc., in Wenatchee, Washington, where it was landfilled. The volume of contaminated soil was about 60 percent larger than the 3,000 tons that had been estimated because the contamination extended considerably farther to the west and somewhat farther to the south than had been estimated. Figure 2 shows the as-built footprint of the excavation, including the excavation top (extent of backfill) and the excavation bottom extents.

Appendix B includes Waste Management's certificate of disposal for the collective quantity of contaminated soils, and a tabulation of the scale tickets for individual loads of soil disposed of at the Wenatchee facility.

About 50 tons of inert debris (mostly rebar, plus some steel piping) were removed from the excavation in the course of removing contaminated soil. Most of this material was hauled to Scrap-It/Parberry Environmental Solutions, Inc., in Ferndale, Washington, and recycled. The metal removed during concrete crushing (inert debris) was hauled to Schnitzer Steel Industries, Inc., in Tacoma, Washington, and recycled.

3.9 Excavation Backfill

The excavation was backfilled to the preconstruction grade with approximately 1,180 cubic yards of usable overburden soil, 6,341 tons of import gravel borrow, and 496 tons of import permeable ballast surfacing. From the bottom of the excavation up to surface grade, the excavation backfill sequence included placement of the following materials:

- Import gravel borrow within the saturated depth interval (excavation bottom up to approximately 8 feet below grade);
- Reusable overburden soil from 8 to 4.5 feet below grade;

- A layer of high-visibility separation geotextile on top of the overburden soil to distinguish it from the overlying imported capping material, in accordance with the CAP and the Specifications;
- Import gravel borrow from 4.5 to 0.5 feet below grade; and
- 6 inches of import permeable ballast at the surface.

All of the imported material was from Concrete Nor'west, Inc., in Mt. Vernon, Washington, and was non-contaminated, native materials from Washington State Department of Transportation-approved sources, in accordance with the Specifications.

Backfill soil was placed in lifts of approximately 12 inches and compacted with dozer and vibratory roller compactor to a reasonably firm and unyielding condition.

The uppermost 2 feet of clean import material (gravel borrow + permeable ballast), underlain by a separation geotextile, complies with the CAP requirements for RAU-wide capping to provide protection for the soil direct-contact (unrestricted land use) and soil-erosion pathways.

4 Bunker C Soil Removal Results

From December 2015 through February 2016, the Bunker C soil removal project permanently removed 4,811 tons of petroleum-contaminated soil from the Pulp and Tissue Mill RAU, in accordance with the CAP. Performance monitoring data collected throughout the excavation confirm that the soil TPH remediation level has been met. As such, the CAP's cleanup action objectives for groundwater protection source control have been met. For reference, Appendix C includes a tabulation of the final quantities expended for each bid item in the contract. Appendix D includes selected photographs taken during execution of the soil removal project.

Residual soil TPH concentrations on the bottom of the excavation meet the RAU-specific 3,100 mg/kg TPH soil cleanup level for unrestricted direct contract; however, residual soil TPH concentrations in some locations on the excavation sidewalls exceed the cleanup level. The entire excavation footprint has been capped with 2 feet of clean import material, underlain by a high-visibility separation geotextile, to achieve protection for the soil direct-contact and soil-erosion pathways in accordance with the CAP. Long-term integrity of the RAU-wide cap will be achieved by implementation of the forthcoming Inspection and Maintenance Plan as required by the Consent Decree.

Apart from cap inspection and maintenance, no further remedial action is required for the Bunker C soil removal excavation area.

5 References

Aspect Consulting (Aspect), 2015a, Engineering Design Report, Cleanup of the Pulp and Tissue Mill Remedial Action Unit, Georgia-Pacific West Site, Bellingham, Washington, Volume 1: Soil Removal from Bunker C Subarea, May 14, 2015.

Aspect, 2015b, Compliance Monitoring Plan, Cleanup of Pulp and Tissue Mill Remedial Action Unit, Georgia-Pacific West Site, Bellingham, Washington, Volume 1: Soil Removal from Bunker C Subarea, July 24, 2015.

Port of Bellingham, 2015, Bid Solicitation (includes Construction Plans and Specifications) for Bunker C Soil Removal Project, Bellingham, Washington, August 2015.

Washington State Department of Ecology, 2014, Cleanup Action Plan, Pulp and Tissue Mill Remedial Action Unit, Georgia-Pacific West Site Bellingham, Washington, October 30, 2014.

6 Limitations

Work for this project was performed and this report prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. It is intended for the exclusive use of Port of Bellingham for specific application to the referenced property. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

TABLES

Table 1 - Soil Excavation Performance Monitoring Analytical Data

Project No. 140298, Pulp and Tissue Mill RAU
GP West Site, Bellingham, Washington

Sample ID	Sample Date	Sample Depth (ft)	Bunker C TPH Concentration in mg/kg	Comments
Excavation Bottom Samples (compared against 10,000 mg/kg TPH remediation level)				
BCX-039-12	1/6/2016	12	310	
BCX-041-12	1/6/2016	12	300	
BCX-042-12	1/6/2016	12	320	
BCX-043-12	1/6/2016	12	320	
BCX-044-11	1/7/2016	11	290	
BCX-045-14	1/7/2016	14	320	
BCX-048-11	1/7/2016	11	310	
BCX-050-13	1/7/2016	13	310	
BCX-051-11	1/7/2016	11	300	
BCX-054-16	1/7/2016	16	320	
BCX-055-15	1/7/2016	15	310	
BCX-060-14	1/8/2016	14	350	
BCX-061-14	1/8/2016	14	360	
BCX-063-16	1/8/2016	16	340	
BCX-064-16	1/8/2016	16	330	
BCX-065	1/11/2016	15	330	
BCX-066	1/11/2016	15	280	
BCX-068	1/11/2016	16	320	
BCX-069	1/11/2016	16	320	
BCX-085-12	1/12/2016	12	310	
BCX-090-12	1/13/2016	12	290	
BCX-101	1/28/2016	8	300	
BCX-103	1/28/2016	11	290	
BCX-106	1/28/2016	14	270	
BCX-107	1/28/2016	13	290	
BCX-108	1/28/2016	14	310	
BCX-109	1/28/2016	14	280	
BCX-110	1/28/2016	10	550	
Excavation Sidewall Samples (compared against 10,000 mg/kg TPH remediation level)				
BCX-001	12/28/2015	4	280	
BCX-002	12/28/2015	4	290	
BCX-003	12/28/2015	4	270	
BCX-004	12/28/2015	4	270	
BCX-005	12/28/2015	4	280	
BCX-006	12/28/2015	4	290	
BCX-007	12/28/2015	4	270	

Table 1 - Soil Excavation Performance Monitoring Analytical Data

Project No. 140298, Pulp and Tissue Mill RAU
GP West Site, Bellingham, Washington

Sample ID	Sample Date	Sample Depth (ft)	Bunker C TPH Concentration in mg/kg	Comments
BCX-008	12/28/2015	4	280	
BCX-009	12/28/2015	4	5500	
BCX-010	12/28/2015	8	38000	Subsequently excavated
BCX-011	12/28/2015	8	290	
BCX-012	12/28/2015	8	310	
BCX-013	12/29/2015	8	310	
BCX-014	12/29/2015	12	300	
BCX-015	12/29/2015	4	280	
BCX-016	12/29/2015	8	6700	
BCX-017	12/29/2015	4	260	
BCX-018	12/29/2015	11	330	
BCX-019	12/29/2015	12	310	
BCX-020	12/29/2015	12	310	
BCX-021	12/29/2015	11.5	6300	
BCX-022	12/30/2015	8	310	
BCX-023	12/30/2015	12	520	
BCX-024	12/30/2015	8	350	
BCX-025	12/30/2015	12	690	
BCX-026	1/4/2016	8	7400	
BCX-027	1/4/2016	11	31000	Subsequently excavated
BCX-028	1/4/2016	8	28000	Subsequently excavated
BCX-029	1/4/2016	12	69000	Subsequently excavated
BCX-030	1/4/2016	8	63000	Subsequently excavated
BCX-031	1/4/2016	12	310	
BCX-032	1/4/2016	11	11000	Subsequently excavated
BCX-033	1/4/2016	8	59000	Subsequently excavated
BCX-034	1/4/2016	12	310	
BCX-035	1/4/2016	11	45000	Subsequently excavated
BCX-036-8	1/5/2016	8	9900	
BCX-037-8	1/6/2016	8	290	
BCX-038-10	1/6/2016	10	310	
BCX-040-6	1/6/2016	6	29000	Subsequently excavated
BCX-046-11	1/7/2016	11	300	
BCX-047-4	1/7/2016	4	850	
BCX-052-7	1/7/2016	7	290	
BCX-053-6	1/7/2016	6	290	
BCX-057-6	1/8/2016	6	300	
BCX-058-10	1/8/2016	10	310	
BCX-067-15	1/11/2016	15	330	

Table 1 - Soil Excavation Performance Monitoring Analytical Data

Project No. 140298, Pulp and Tissue Mill RAU
GP West Site, Bellingham, Washington

Sample ID	Sample Date	Sample Depth (ft)	Bunker C TPH Concentration in mg/kg	Comments
BCX-070-12	1/11/2016	12	280	
BCX-073-8	1/11/2016	8	320	
BCX-074-12	1/11/2016	12	290	
BCX-075-16	1/11/2016	16	310	
BCX-076-8	1/11/2016	8	330	
BCX-077-15	1/11/2016	15	330	
BCX-078-11	1/11/2016	11	340	
BCX-079-7	1/11/2016	7	300	
BCX-080-3	1/11/2016	3	340	
BCX-081-12	1/12/2016	12	310	
BCX-083-8	1/12/2016	8	26000	Subsequently excavated
BCX-084-4	1/12/2016	4	2200	
BCX-086-8	1/12/2016	8	15000	Subsequently excavated
BCX-089-8	1/13/2016	8	290	
BCX-091-7	1/13/2016	7	300	
BCX-092-8	1/13/2016	8	310	
BCX-093-8	1/13/2016	8	330	
BCX-094	1/14/2016	11	320	
BCX-095	1/14/2016	9	470	
BCX-097	1/18/2016	8	300	
BCX-099	1/20/2016	10	310	
BCX-100	1/27/2016	4	280	
BCX-104	1/28/2016	4	290	
BCX-105	1/28/2016	5	270	
BCX-111	1/28/2016	8	2500	
BCX-112	1/28/2016	6	590	
BCX-113	1/28/2016	6	280	
BCX-114	1/29/2016	5	300	

Note: Shaded sample results exceeded remediation level and were thus subsequently excavated.

Table 2 - Overburden Soil Analytical Data

Project No. 140298, Pulp and Tissue Mill RAU
GP West Site, Bellingham, Washington

Sample ID	Sample Date	Bunker C TPH Concentration in mg/kg
Samples of Stockpiled Overburden Soil (compared against 10,000 mg/kg TPH remediation level)		
BCXSP-001	1/6/2016	680
BCXSP-002	1/6/2016	540
BCXSP-003	1/8/2016	710
BCXSP-004	1/8/2016	550
BCXSP-005	1/8/2016	990
BCXSP-006	1/11/2016	3600
BCXSP-007	1/11/2016	1500
BCXSP-008	1/11/2016	3500
BCXSP-009	1/11/2016	1200
BCXSP-010	1/18/2016	2100
BCXSP-011	1/28/2016	580
BCXSP-012	1/28/2016	790

Note: Sample data indicate all overburden soil met the remediation level, and it was thus all reused as excavation backfill.

Table 3 - Water Quality Monitoring Data

Project No. 140298, Pulp and Tissue Mill RAU
GP West Site, Bellingham, Washington

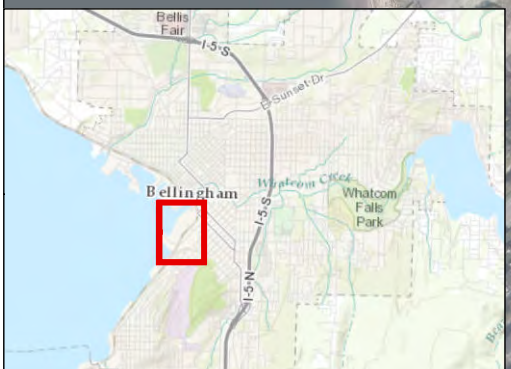
Date	Total Settleable Solids (ml/L)	Visible sheen
1/13/2016	0	L
1/14/2016	0	N
1/15/2016	0	N
1/18/2016	0	N
1/20/2016	0	N
1/27/2016	0	N
2/2/2016	0	N
2/4/2016	0	N
2/4/2016	0	N

Measurements collected for water discharged to Aerated Stabilization Basin (ASB) pump station

Total settleable solids measured with Imhof Cone, in units of mililiters of sediment per liter of water (ml/L)

Visible sheen observations: H=heavy, L=light, N=none

FIGURES



Soil Removal Area

Bunker C Soil Removal As-Built Report
Pulp & Tissue Mill RAU
GP West Site, Bellingham, WA

Aspect CONSULTING	MAR-2016	BY: MAV / EAC	FIGURE NO. 1
	PROJECT NO. 140298	REVISED BY: RAP	

GIS Path: T:\projects_8\Port_of_Bellingham\Delivered\Bunker C Soil Removal As-Built Report\BunkerCSoilRemovalArea.mxd | | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | | Date Saved: 3/21/2016 | | User: mepin | | Print Date: 3/22/2016

GP Dock

Whatcom Waterway

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F

Exploratory Test Pit

Estimated top of slope of excavation sidewall under deck

018-11 016-8 017-4 002-4 011-8 020-12 021-11.5 094-11 084-4 003-4 010-8 083-8 081-12 085-12 092-8 043-12 086-8 042-12 093-8 040-6 045-14 036-8 041-12 090-12 091-7 089-8 039-12 037-8 038-10 019-12 012-8 001-4 044-11 046-11 048-11 050-13 052-7 047-4 015-4 014-12 013-8 051-11 023-12 022-8 004-4 024-8 025-12 005-4 056-8 054-16 055-15 053-6 061-14 060-14 058-10 057-6 026-8 097-8 096-9 006-4 027-11 028-8 008-4 095-9 029-12 062-9 072-8 071-12 069-16 064-16 063-16 077-15 076-8 070-12 068-16 074-12 073-8 075-16 099-10 007-4 031-12 032-11 030-8 066-15 065-15 078-11 079-7 080-3 067-15 035-11 034-12 033-8 009-4 109-14 106-14 114-5 108-14 110-10 113-6 107-13 112-6 111-8 101-8 103-11 105-5 100-4 104-4

Excavation Bottom

Excavation Top

GP Dock Bulkhead Line

20 ft Grid

Sample Depth (ft) / Sample ID → 017-4 — Verification Soil Sample (In-Place)

Sample Depth (ft) / Sample ID → 010-8 — Verification Soil Sample - Did Not Meet Remediation Level (Subsequently Excavated)

Note: "BCX-" prefix omitted from Sample IDs to improve readability

MILL NORTH

TRUE NORTH

45°

0 10 20 40 60 80 Feet

Excavation Limits and Verification Soil Sample Locations

Bunker C Soil Removal As-Built Report
Pulp & Tissue Mill RAU
GP West Site, Bellingham, WA

Aspect CONSULTING

	MAR-2016	BY: RRH / RAP	FIGURE NO. 2
	PROJECT NO. 140298	REVISED BY: MAV / RAP / RMB	

Path: T:\projects_8\Port_of_Bellingham\Delivered\Bunker C Soil Removal As-Built Report\ExcavationLimitsandVerificationSoilSamples.mxd

APPENDIX A

Laboratory Reports of Analysis for Performance Monitoring Analytical Data (OnSite Environmental, Inc.)

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 4, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1512-276

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on December 29, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 4, 2016
Samples Submitted: December 29, 2015
Laboratory Reference: 1512-276
Project: 140298-001-12

Case Narrative

Samples were collected on December 28, 2015 and received by the laboratory on December 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 4, 2016
Samples Submitted: December 29, 2015
Laboratory Reference: 1512-276
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-001**					
Laboratory ID:	12-276-01					
Bunker C Range	**ND**	280	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**BCX-002**					
Laboratory ID:	12-276-02					
Bunker C Range	**ND**	290	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**BCX-003**					
Laboratory ID:	12-276-03					
Bunker C Range	**ND**	270	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**BCX-004**					
Laboratory ID:	12-276-04					
Bunker C Range	**ND**	270	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**BCX-005**					
Laboratory ID:	12-276-05					
Bunker C Range	**ND**	280	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**BCX-006**					
Laboratory ID:	12-276-06					
Bunker C Range	**ND**	290	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**BCX-007**					
Laboratory ID:	12-276-07					
Bunker C Range	**ND**	270	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

Date of Report: January 4, 2016
Samples Submitted: December 29, 2015
Laboratory Reference: 1512-276
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-008**					
Laboratory ID:	12-276-08					
Bunker C Range	**ND**	280	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**BCX-009**					
Laboratory ID:	12-276-09					
Bunker C	**5500**	3000	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**BCX-010**					
Laboratory ID:	12-276-10					
Bunker C	**38000**	7900	NWTPH-Dx	12-30-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**BCX-011**					
Laboratory ID:	12-276-11					
Bunker C Range	**ND**	290	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				
Client ID:	**BCX-012**					
Laboratory ID:	12-276-12					
Bunker C Range	**ND**	310	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Date of Report: January 4, 2016
Samples Submitted: December 29, 2015
Laboratory Reference: 1512-276
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1230S1					
Bunker C Range	**ND**	250	NWTPH-Dx	12-30-15	12-30-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	12-272-01										
	ORIG	DUP									
Diesel Range Organics	**193**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range Organics	**1040**	**50.4**	NA	NA		NA		NA	182	NA	
Surrogate:											
o-Terphenyl						*94*	*84*	*50-150*			
Laboratory ID:	12-276-01										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						*85*	*93*	*50-150*			

Date of Report: January 4, 2016
Samples Submitted: December 29, 2015
Laboratory Reference: 1512-276
Project: 140298-001-12

% MOISTURE

Date Analyzed: 12-30-15

Client ID	Lab ID	% Moisture
BCX-001	12-276-01	9
BCX-002	12-276-02	12
BCX-003	12-276-03	6
BCX-004	12-276-04	8
BCX-005	12-276-05	9
BCX-006	12-276-06	14
BCX-007	12-276-07	7
BCX-008	12-276-08	10
BCX-009	12-276-09	16
BCX-010	12-276-10	37
BCX-011	12-276-11	14
BCX-012	12-276-12	20

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

12-276

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3 day TAT
Client Project Number: **140298-001-12**	☐ 24 hour Rush ☒ ~~Standard~~
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (% moisture)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: 12/28 Time: 830 **BCX-001**	12/28	08:30	1	NWTPH-DX (BunkerC) w/silica gel X	
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-002**	12/28	08:50	1	NWTPH-DX (BunkerC) w/silica gel X	
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-003**	12/28	08:55	1	NWTPH-DX (BunkerC) w/silica gel X	
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-004**	12/28	0905	1	NWTPH-DX (BunkerC) w/silica gel X	
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-005**	12/28	0915	1	NWTPH-DX (BunkerC) w/silica gel X	

	Signature	Print Name	Date	Company
Relinquished By:	[signature]	Matthew VanderHe	12/29	Aspect
Received By:	[signature]	FELIA F	12/29/15	SPEEDY 3:37 pm
Relinquished By:	[signature]	FELIA F	12/29/15	" 3:37 pm
Received By:	[signature]	M.V.GUN	12/29/15 3:37 pm	OSL

Chain of Custody 12-276

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: ☐ 24 hour Rush X ~~Standard~~ 3 day TAT
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

Sample	Date	Time	# of containers	Analysis (no moisture)	Notes
6 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-006**	12/28	11:20	1	NWTPH-DX (BunkerC) w/silica gel X	
7 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-007**	12/28	11:35	1	NWTPH-DX (BunkerC) w/silica gel X	
8 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-008**	12/28	1210 ~~1205~~	1	NWTPH-DX (BunkerC) w/silica gel X	
9 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-009**	12/28	13:25	1	NWTPH-DX (BunkerC) w/silica gel X	
10 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-010**	12/28	13:50	1	NWTPH-DX (BunkerC) w/silica gel X	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew VanderAhe	12/29	Aspect
Received By:		CELIA F	12/29	SPEEDY
Relinquished By:		CELIA F	12/29	"
Received By:		MVOUN	12/29/15	OSE

Chain of Custody 12-276 Page X3 of 3

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: ☐ 24 hour Rush ☒ ~~Standard~~ 3 day TAT
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☑ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 moisture)	Notes
11	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-011**	12/28	14:00	1	NWTPH-DX (BunkerC) w/silica gel X	
12	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-012**	12/28	14:15	1	NWTPH-DX (BunkerC) w/silica gel X	
3					NWTPH-DX (BunkerC) w/silica gel	
4					NWTPH-DX (BunkerC) w/silica gel	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:	MvdA	Matthew vonderahe	12/29	Aspect
Received By:	Julie Foster	JULIE FOSTER	12/29	SPEEDY
Relinquished By:	Celia Gomez	CELIA F	12/29	"
Received By:		MVON	12/29/15	OSG

Sample/Cooler Receipt and Acceptance Checklist

Client: ASP

Client Project Name/Number: 140298-001-12

OnSite Project Number: 12-276

Initiated by: MM

Date Initiated: 12/29/15

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 4	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 4, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1512-287

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on December 30, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 4, 2016
Samples Submitted: December 30, 2015
Laboratory Reference: 1512-287
Project: 140298-001-12

Case Narrative

Samples were collected on December 29, 2015 and received by the laboratory on December 30, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 4, 2016
Samples Submitted: December 30, 2015
Laboratory Reference: 1512-287
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-013**					
Laboratory ID:	12-287-01					
Bunker C Range	**ND**	310	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***106***	***50-150***				
Client ID:	**BCX-018**					
Laboratory ID:	12-287-02					
Bunker C Range	**ND**	330	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***100***	***50-150***				
Client ID:	**BCX-020**					
Laboratory ID:	12-287-03					
Bunker C Range	**ND**	310	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***100***	***50-150***				
Client ID:	**BCX-014**					
Laboratory ID:	12-287-04					
Bunker C Range	**ND**	300	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				
Client ID:	**BCX-017**					
Laboratory ID:	12-287-05					
Bunker C Range	**ND**	260	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Client ID:	**BCX-021**					
Laboratory ID:	12-287-06					
Bunker C	**6300**	1700	NWTPH-Dx	12-31-15	1-4-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***107***	***50-150***				
Client ID:	**BCX-015**					
Laboratory ID:	12-287-07					
Bunker C Range	**ND**	280	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				

Date of Report: January 4, 2016
Samples Submitted: December 30, 2015
Laboratory Reference: 1512-287
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-019**					
Laboratory ID:	12-287-08					
Bunker C Range	**ND**	310	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***78***	***50-150***				
Client ID:	**BCX-016**					
Laboratory ID:	12-287-09					
Bunker C	**6700**	2100	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***98***	***50-150***				

Date of Report: January 4, 2016
Samples Submitted: December 30, 2015
Laboratory Reference: 1512-287
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1231S1					
Bunker C Range	**ND**	250	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***97***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	12-278-02										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						***112***	***111***	***50-150***			

Date of Report: January 4, 2016
Samples Submitted: December 30, 2015
Laboratory Reference: 1512-287
Project: 140298-001-12

% MOISTURE

Date Analyzed: 12-31-15

Client ID	Lab ID	% Moisture
BCX-013	12-287-01	20
BCX-018	12-287-02	23
BCX-020	12-287-03	20
BCX-014	12-287-04	16
BCX-017	12-287-05	5
BCX-021	12-287-06	25
BCX-015	12-287-07	10
BCX-019	12-287-08	20
BCX-016	12-287-09	42

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

12-287

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 Moisture)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-013**	12/29	14:20	1	NWTPH-DX (BunkerC) w/silica gel ☒	
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-018**	〃	14:00	1	NWTPH-DX (BunkerC) w/silica gel ☒	
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-020**	〃	15:00	1	NWTPH-DX (BunkerC) w/silica gel ☒	
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-014**	〃	14:30	1	NWTPH-DX (BunkerC) w/silica gel ☒	
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-017**	〃	13:25	1	NWTPH-DX (BunkerC) w/silica gel ☒	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	12/30/2015	
Received By:			12/30/15	SPEEDY
Relinquished By:			12/30/15	
Received By:		MVOUN	12/30/15 1525	OSE

Chain of Custody

Page 2 of 2

12-287

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 2-DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 moisture)	Notes
6	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-021**	12/29	15:05	1	NWTPH-DX (BunkerC) w/silica gel X	
7	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-015**	11	14:15	1	NWTPH-DX (BunkerC) w/silica gel X	
8	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-019**	11	14:45	1	NWTPH-DX (BunkerC) w/silica gel X	
9	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-016**	11	13:45	1	NWTPH-DX (BunkerC) w/silica gel X	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	12/30/2015	
Received By:		CELIA F.	12/30/15	SPEEDY
Relinquished By:		CELIA F	12/30	
Received By:		MVOUN	12/30/15 1525	OSE

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 4, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1512-293

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on December 31, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 4, 2016
Samples Submitted: December 31, 2015
Laboratory Reference: 1512-293
Project: 140298-001-12

Case Narrative

Samples were collected on December 30, 2015 and received by the laboratory on December 31, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 4, 2016
Samples Submitted: December 31, 2015
Laboratory Reference: 1512-293
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-022**					
Laboratory ID:	12-293-01					
Bunker C Range	**ND**	310	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**BCX-023**					
Laboratory ID:	12-293-02					
Bunker C Range	**ND**	520	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				
Client ID:	**BCX-024**					
Laboratory ID:	12-293-03					
Bunker C Range	**ND**	350	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**BCX-025**					
Laboratory ID:	12-293-04					
Bunker C	**690**	290	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				

Date of Report: January 4, 2016
Samples Submitted: December 31, 2015
Laboratory Reference: 1512-293
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1231S2					
Bunker C Range	**ND**	250	NWTPH-Dx	12-31-15	12-31-15	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*110*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	12-288-03										
	ORIG	DUP									
Diesel Range Organics	**991**	**836**	NA	NA		NA		NA	17	NA	N
Lube Oil	**4070**	**2940**	NA	NA		NA		NA	32	NA	
Surrogate:											
o-Terphenyl						---	---	*50-150*			S,S

Date of Report: January 4, 2016
Samples Submitted: December 31, 2015
Laboratory Reference: 1512-293
Project: 140298-001-12

% MOISTURE

Date Analyzed: 12-31-15

Client ID	Lab ID	% Moisture
BCX-022	12-293-01	20
BCX-023	12-293-02	52
BCX-024	12-293-03	29
BCX-025	12-293-04	13

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

12-293

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: ☒ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-022**	12/30	14:40	1	NWTPH-DX (BunkerC) w/silica gel	
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-023**	12/30	14:55	1	NWTPH-DX (BunkerC) w/silica gel	
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-024**	12/30	15:05	1	NWTPH-DX (BunkerC) w/silica gel	
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-025**	12/30	15:10	1	NWTPH-DX (BunkerC) w/silica gel	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew VanderAhe	12/31/2015	Aspect Consulting
Received By:		CELIA F.	12/31/15	SPEEDY
Relinquished By:		CELIA F.	12/31/15	SPEEDY
Received By:		MVOUN	12/31/15 1220	OSE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 6, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-005

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 5, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 6, 2016
Samples Submitted: January 5, 2016
Laboratory Reference: 1601-005
Project: 140298-001-12

Case Narrative

Samples were collected on January 4, 2016 and received by the laboratory on January 5, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 6, 2016
Samples Submitted: January 5, 2016
Laboratory Reference: 1601-005
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-026**					
Laboratory ID:	01-005-01					
Bunker C	**7400**	5500	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-027**					
Laboratory ID:	01-005-02					
Bunker C	**31000**	8100	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-028**					
Laboratory ID:	01-005-03					
Bunker C	**28000**	6300	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-029**					
Laboratory ID:	01-005-04					
Bunker C	**69000**	13000	NWTPH-Dx	1-5-16	1-6-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-030**					
Laboratory ID:	01-005-05					
Bunker C	**63000**	14000	NWTPH-Dx	1-5-16	1-6-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-031**					
Laboratory ID:	01-005-06					
Bunker C Range	**ND**	310	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***102***	***50-150***				
Client ID:	**BCX-032**					
Laboratory ID:	01-005-07					
Bunker C	**11000**	1500	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				

Date of Report: January 6, 2016
Samples Submitted: January 5, 2016
Laboratory Reference: 1601-005
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-033**					
Laboratory ID:	01-005-08					
Bunker C	**59000**	5900	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-034**					
Laboratory ID:	01-005-09					
Bunker C Range	**ND**	310	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				
Client ID:	**BCX-035**					
Laboratory ID:	01-005-10					
Bunker C	**45000**	5900	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S

Date of Report: January 6, 2016
Samples Submitted: January 5, 2016
Laboratory Reference: 1601-005
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0105S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-5-16	1-5-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***94***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	01-005-01									
	ORIG	DUP								
Bunker C	**6680**	**6360**	NA	NA		NA	NA	5	NA	X1
Surrogate:										
o-Terphenyl						***---***	***50-150***			S,S

Date of Report: January 6, 2016
Samples Submitted: January 5, 2016
Laboratory Reference: 1601-005
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-5-16

Client ID	Lab ID	% Moisture
BCX-026	01-005-01	9
BCX-027	01-005-02	38
BCX-028	01-005-03	20
BCX-029	01-005-04	5
BCX-030	01-005-05	12
BCX-031	01-005-06	21
BCX-032	01-005-07	17
BCX-033	01-005-08	16
BCX-034	01-005-09	20
BCX-035	01-005-10	16

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

01-005

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: X ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): X ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes	% moist
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-026**	1/4	14:00	1	NWTPH-DX (BunkerC) w/silica gel	** likely high, inc? (no)	X
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-027**	** 1/4	14:05	1	NWTPH-DX (BunkerC) w/silica gel	Xes	X
	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-028**	1/4	14:15	1	NWTPH-DX (BunkerC) w/silica gel	?	X
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-029**	1/4	14:25	1	NWTPH-DX (BunkerC) w/silica gel	Xes	X
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-030**	1/4	14:35	1	NWTPH-DX (BunkerC) w/silica gel	Xes	X

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	1/5	Aspect
Received By:		CELIA F.	1/5	SPEEDY
Relinquished By:		CELIA F.	1/5	"
Received By:		Blair Courtney	1/5/16	OFite

Chain of Custody

01-005

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around:
Client Project Number: **140298-001-12**	X ☐ 24 hour Rush ☐ Standard
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes: likely high conc?

	Sample	Date	Time	# of containers	Analysis	Notes	
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-031**	1/4	14:45	1	NWTPH-DX (BunkerC) w/silica gel	no	X
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-032**	1/4	14:40	1	NWTPH-DX (BunkerC) w/silica gel	~~no~~ yes	X
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-033**	1/4	14:50	1	NWTPH-DX (BunkerC) w/silica gel	yes	X
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-034**	1/4	15:05	1	NWTPH-DX (BunkerC) w/silica gel	no	X
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-035**	1/4	15:00	1	NWTPH-DX (BunkerC) w/silica gel	yes	X

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	1/5	Aspect
Received By:		CELIA F	1/5	SPEEDY
Relinquished By:		CELIA F	1/6	"
Received By:		Blair Cardrow	1/5/16	On Site

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 8, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-029

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 7, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 8, 2016
Samples Submitted: January 7, 2016
Laboratory Reference: 1601-029
Project: 140298-001-12

Case Narrative

Samples were collected on January 5 and 6, 2016 and received by the laboratory on January 7, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 8, 2016
Samples Submitted: January 7, 2016
Laboratory Reference: 1601-029
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-036-8**					
Laboratory ID:	01-029-01					
Bunker C	**9900**	1400	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***120***	***50-150***				
Client ID:	**BCX-037-8**					
Laboratory ID:	01-029-02					
Bunker C Range	**ND**	290	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				
Client ID:	**BCX-038-10**					
Laboratory ID:	01-029-03					
Bunker C Range	**ND**	310	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***110***	***50-150***				
Client ID:	**BCX-039-12**					
Laboratory ID:	01-029-04					
Bunker C Range	**ND**	310	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***100***	***50-150***				
Client ID:	**BCXSP-001**					
Laboratory ID:	01-029-05					
Bunker C	**680**	300	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***99***	***50-150***				
Client ID:	**BCXSP-002**					
Laboratory ID:	01-029-06					
Bunker C	**540**	290	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***97***	***50-150***				
Client ID:	**BCX-043-12**					
Laboratory ID:	01-029-07					
Bunker C Range	**ND**	320	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				

Date of Report: January 8, 2016
Samples Submitted: January 7, 2016
Laboratory Reference: 1601-029
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-040-6**					
Laboratory ID:	01-029-08					
Bunker C	**29000**	15000	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-041-12**					
Laboratory ID:	01-029-09					
Bunker C Range	**ND**	300	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***99***	***50-150***				
Client ID:	**BCX-042-12**					
Laboratory ID:	01-029-10					
Bunker C Range	**ND**	320	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***110***	***50-150***				

Date of Report: January 8, 2016
Samples Submitted: January 7, 2016
Laboratory Reference: 1601-029
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0107S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-7-16	1-7-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***89***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-029-10										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						***110***	***98***	***50-150***			

Date of Report: January 8, 2016
Samples Submitted: January 7, 2016
Laboratory Reference: 1601-029
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-7-16

Client ID	Lab ID	% Moisture
BCX-036-8	01-029-01	9
BCX-037-8	01-029-02	12
BCX-038-10	01-029-03	18
BCX-039-12	01-029-04	19
BCXSP-001	01-029-05	16
BCXSP-002	01-029-06	13
BCX-043-12	01-029-07	21
BCX-040-6	01-029-08	18
BCX-041-12	01-029-09	18
BCX-042-12	01-029-10	22

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 2

01-029

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: ☒ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: / Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes	
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-036** -8	1/5	13:45	1	NWTPH-DX (BunkerC) w/silica gel	high conc	X
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-037** -8	1/6	14:50	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-038** -10	1/6	14:55	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-039** -12	1/6	15:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCXSP-001**	1/6	14:10	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe, AHc	1/7	Aspect
Received By:		CELIAF	1/7	SPEEDY
Relinquished By:		CELIAF	1/7	"
Received By:		Blair Cooden	1/7 11:00	Onsite

Chain of Custody

01-029

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: ☒ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: / Receiving Notes:

Sample	Date	Time	# of containers	Analysis	Notes	
6 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCXSP-002**	1/6	14:15	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
7 2 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-043** -12	1/6	16:40	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
8 3 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-040** -6	1/6	15:40	1	NWTPH-DX (BunkerC) w/silica gel	med conc	X
9 4 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-041** -12	1/6	16:30	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
10 5 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-042** -12	1/6	16:35	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X

	Signature	Print Name	Date	Company
Relinquished By:		Matthew VanderAhe	1/7	Aspect
Received By:		CELIA F.	1/7	SPECO
Relinquished By:		CELIA F	1/7	"
Received By:		Blair Cooley	1/7/16	0515:40

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 11, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-035

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 8, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 11, 2016
Samples Submitted: January 8, 2016
Laboratory Reference: 1601-035
Project: 140298-001-12

Case Narrative

Samples were collected on January 7 and 8, 2016 and received by the laboratory on January 8, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 11, 2016
Samples Submitted: January 8, 2016
Laboratory Reference: 1601-035
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-044-11**					
Laboratory ID:	01-035-01					
Bunker C Range	**ND**	290	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*124*	*50-150*				
Client ID:	**BCX-045-14**					
Laboratory ID:	01-035-02					
Bunker C Range	**ND**	320	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*114*	*50-150*				
Client ID:	**BCX-046-11**					
Laboratory ID:	01-035-03					
Bunker C Range	**ND**	300	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*120*	*50-150*				
Client ID:	**BCX-047-4**					
Laboratory ID:	01-035-04					
Bunker C	**850**	300	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*122*	*50-150*				
Client ID:	**BCX-048-11**					
Laboratory ID:	01-035-05					
Bunker C Range	**ND**	310	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*123*	*50-150*				
Client ID:	**BCX-050-13**					
Laboratory ID:	01-035-06					
Bunker C Range	**ND**	310	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*114*	*50-150*				
Client ID:	**BCX-051-11**					
Laboratory ID:	01-035-07					
Bunker C Range	**ND**	300	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Date of Report: January 11, 2016
Samples Submitted: January 8, 2016
Laboratory Reference: 1601-035
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-052-7**					
Laboratory ID:	01-035-08					
Bunker C Range	**ND**	290	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*114*	*50-150*				
Client ID:	**BCX-053-6**					
Laboratory ID:	01-035-09					
Bunker C Range	**ND**	290	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**BCX-054-16**					
Laboratory ID:	01-035-10					
Bunker C Range	**ND**	320	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*109*	*50-150*				
Client ID:	**BCX-055-15**					
Laboratory ID:	01-035-11					
Bunker C Range	**ND**	310	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*110*	*50-150*				
Client ID:	**BCXSP-003**					
Laboratory ID:	01-035-12					
Bunker C	**710**	300	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**BCXSP-004**					
Laboratory ID:	01-035-13					
Bunker C	**550**	300	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*109*	*50-150*				
Client ID:	**BCXSP-005**					
Laboratory ID:	01-035-14					
Bunker C	**990**	290	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Date of Report: January 11, 2016
Samples Submitted: January 8, 2016
Laboratory Reference: 1601-035
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0108S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-8-16	1-8-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*135*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-034-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*100*	*108*	*50-150*			
Laboratory ID:	01-034-02										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**169**	**109**	NA	NA		NA		NA	43	NA	
Surrogate:											
o-Terphenyl						*109*	*97*	*50-150*			

Date of Report: January 11, 2016
Samples Submitted: January 8, 2016
Laboratory Reference: 1601-035
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-8-16

Client ID	Lab ID	% Moisture
BCX-044-11	01-035-01	14
BCX-045-14	01-035-02	22
BCX-046-11	01-035-03	15
BCX-047-4	01-035-04	16
BCX-048-11	01-035-05	18
BCX-050-13	01-035-06	18
BCX-051-11	01-035-07	16
BCX-052-7	01-035-08	13
BCX-053-6	01-035-09	14
BCX-054-16	01-035-10	21
BCX-055-15	01-035-11	18
BCXSP-003	01-035-12	16
BCXSP-004	01-035-13	16
BCXSP-005	01-035-14	14

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

01-035

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ~~☐ 24 hour Rush~~ ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ~~☒~~ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

% moisture

	Sample	Date	Time	# of containers	Analysis	Notes	
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-044** -11	1/7	10:30	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-045** -14	1/7	10:35	1	NWTPH-DX (BunkerC) w/silica gel	low conc.	X
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-046** -11	1/7	10:40	1	NWTPH-DX (BunkerC) w/silica gel	~~MED~~ med conc	X
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-047** -4	1/7	10:45	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-048** -11	1/7	12:25	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X

	Signature	Print Name	Date	Company
Relinquished By:		matthew vonderahe	1/8	Aspect
Received By:		CELIA F.	1/8	SPEEDY
Relinquished By:		CELIA F.	1/8	"
Received By:				

Chain of Custody

01-035

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ~~☒ 24-hour Rush~~ ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Date	Time	# of containers	Analysis	Notes	
61 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-050** -13	1/7	12:40	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
72 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-051** -11	1/7	12:45	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
83 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-052** -7	1/7	13:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
94 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-053** -6	1/7	14:50	1	NWTPH-DX (BunkerC) w/silica gel	low conc.	X
105 Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-054** -16	1/7	15:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc.	X

	Signature	Print Name	Date	Company
Relinquished By:		Matthew vonderahe	1/8	Aspect
Received By:	Celia F	CELIA F	1/8	SPEEDY
Relinquished By:	Celia F	CELIA F	1/8	"
Received By:				

Chain of Custody

01-035

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ☒ ~~24 hour Rush~~ ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes	
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-055** -15	1/7	15:15	1	NWTPH-DX (BunkerC) w/silica gel	low conc.	X
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCXSP-003**	1/8	08:15 ~~08:00~~	1	NWTPH-DX (BunkerC) w/silica gel	low conc	X
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCXSP-004**	1/8	08:20	1	NWTPH-DX (BunkerC) w/silica gel	low	X
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCXSP-005**	1/8	08:25	1	NWTPH-DX (BunkerC) w/silica gel	low	X
5					NWTPH-DX (BunkerC) w/silica gel		

	Signature	Print Name	Date	Company
Relinquished By:	MVh	Matthew VonderAhe	1/8	Aspect
Received By:	Celia F	CELIA F.	1/8	STEDAY
Relinquished By:	Celia F	CELIA F	1/8	"
Received By:				

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 13, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-046

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 11, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 13, 2016
Samples Submitted: January 11, 2016
Laboratory Reference: 1601-046
Project: 140298-001-12

Case Narrative

Samples were collected on January 8, 2016 and received by the laboratory on January 11, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 13, 2016
Samples Submitted: January 11, 2016
Laboratory Reference: 1601-046
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-057-6**					
Laboratory ID:	01-046-01					
Bunker C Range	**ND**	300	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***117***	***50-150***				
Client ID:	**BCX-058-10**					
Laboratory ID:	01-046-02					
Bunker C Range	**ND**	310	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***109***	***50-150***				
Client ID:	**BCX-060-14**					
Laboratory ID:	01-046-03					
Bunker C Range	**ND**	350	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**BCX-061-14**					
Laboratory ID:	01-046-04					
Bunker C Range	**ND**	360	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***85***	***50-150***				
Client ID:	**BCX-063-16**					
Laboratory ID:	01-046-05					
Bunker C Range	**ND**	340	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***102***	***50-150***				
Client ID:	**BCX-064-16**					
Laboratory ID:	01-046-06					
Bunker C Range	**ND**	330	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***102***	***50-150***				

Date of Report: January 13, 2016
Samples Submitted: January 11, 2016
Laboratory Reference: 1601-046
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0112S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-12-16	1-12-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***125***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-046-06										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						***102***	***118***	***50-150***			

Date of Report: January 13, 2016
Samples Submitted: January 11, 2016
Laboratory Reference: 1601-046
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-12-16

Client ID	Lab ID	% Moisture
BCX-057-6	01-046-01	16
BCX-058-10	01-046-02	20
BCX-060-14	01-046-03	28
BCX-061-14	01-046-04	31
BCX-063-16	01-046-05	25
BCX-064-16	01-046-06	23

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

01-046

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3 DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (% moisture)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-057** -6	1/8	10:30	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-058** -10	1/8	10:35	1	NWTPH-DX (BunkerC) w/silica gel X	low conc
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-060** -14	1/8	11:30	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-061** -14	1/8	11:35	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-063** -16	1/8	14:25	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Von Derahe		
Received By:	9:40	TERESA THAYER	1/11/16	SPECTRUM
Relinquished By:	11:24	"	"	"
Received By:		MVOUN	1/11/16 1130	OSE

Chain of Custody

01-046

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3 DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (2 to Mossman)	Notes
6 1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ BCX-064 -16	1/8	14:30	1	NWTPH-DX (BunkerC) w/silica gel	low conc
2					NWTPH-DX (BunkerC) w/silica gel	
3					NWTPH-DX (BunkerC) w/silica gel	
4					NWTPH-DX (BunkerC) w/silica gel	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:				
Received By:		TERRY THAKER	1/11/16	SPECTOR
Relinquished By:		"	"	"
Received By:		MVDW	1/11/16 1130	OSE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 15, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-056

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 12, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

Case Narrative

Samples were collected on January 11, 2016 and received by the laboratory on January 12, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-068**					
Laboratory ID:	01-056-01					
Bunker C Range	**ND**	320	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**BCX-069**					
Laboratory ID:	01-056-02					
Bunker C Range	**ND**	320	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**BCX-073-8**					
Laboratory ID:	01-056-03					
Bunker C Range	**ND**	320	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**BCX-074-12**					
Laboratory ID:	01-056-04					
Bunker C Range	**ND**	290	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**BCX-075-16**					
Laboratory ID:	01-056-05					
Bunker C Range	**ND**	310	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				
Client ID:	**BCX-070-12**					
Laboratory ID:	01-056-06					
Bunker C Range	**ND**	280	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**BCX-076-8**					
Laboratory ID:	01-056-07					
Bunker C Range	**ND**	330	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-077-15**					
Laboratory ID:	01-056-08					
Bunker C Range	**ND**	330	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*123*	*50-150*				
Client ID:	**BCX-065**					
Laboratory ID:	01-056-09					
Bunker C Range	**ND**	330	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*109*	*50-150*				
Client ID:	**BCX-066**					
Laboratory ID:	01-056-10					
Bunker C Range	**ND**	280	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**BCX-067-15**					
Laboratory ID:	01-056-11					
Bunker C Range	**ND**	330	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**BCX-078-11**					
Laboratory ID:	01-056-12					
Bunker C Range	**ND**	340	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*108*	*50-150*				
Client ID:	**BCX-079-7**					
Laboratory ID:	01-056-13					
Bunker C Range	**ND**	300	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*121*	*50-150*				
Client ID:	**BCX-080-3**					
Laboratory ID:	01-056-14					
Bunker C Range	**ND**	340	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCXSP-006**					
Laboratory ID:	01-056-15					
Bunker C	**3600**	1500	NWTPH-Dx	1-14-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**BCXSP-007**					
Laboratory ID:	01-056-16					
Bunker C	**1500**	300	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*115*	*50-150*				
Client ID:	**BCXSP-008**					
Laboratory ID:	01-056-17					
Bunker C	**3500**	1500	NWTPH-Dx	1-14-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**BCXSP-009**					
Laboratory ID:	01-056-18					
Bunker C	**1200**	300	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*113*	*50-150*				

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0114S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-14-16	1-14-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*134*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-056-14										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						*85*	*63*	*50-150*			
Laboratory ID:	01-056-15										
	ORIG	DUP									
Bunker C	**3070**	**2580**	NA	NA		NA		NA	17	NA	X1
Surrogate:											
o-Terphenyl						*104*	*116*	*50-150*			

Date of Report: January 15, 2016
Samples Submitted: January 12, 2016
Laboratory Reference: 1601-056
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-14-16

Client ID	Lab ID	% Moisture
BCX-068	01-056-01	23
BCX-069	01-056-02	21
BCX-073-8	01-056-03	21
BCX-074-12	01-056-04	13
BCX-075-16	01-056-05	20
BCX-070-12	01-056-06	11
BCX-076-8	01-056-07	24
BCX-077-15	01-056-08	24
BCX-065	01-056-09	24
BCX-066	01-056-10	11
BCX-067-15	01-056-11	25
BCX-078-11	01-056-12	26
BCX-079-7	01-056-13	18
BCX-080-3	01-056-14	27
BCXSP-006	01-056-15	15
BCXSP-007	01-056-16	16
BCXSP-008	01-056-17	14
BCXSP-009	01-056-18	17

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Aspect CONSULTING

01-056

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 72-hr ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☒ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 Moisture)	Notes
1	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-068	1/11/16	11:20 ~~10:35~~	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
2	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-069	1/11/16	11:25	1	NWTPH-DX (BunkerC) w/silica gel X	"
3	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-073 -8	1/11/16	12:25	1	NWTPH-DX (BunkerC) w/silica gel X	"
4	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-074 -12	1/11/16	12:20	1	NWTPH-DX (BunkerC) w/silica gel X	"
5	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-075 -16	1/11/16	12:15	1	NWTPH-DX (BunkerC) w/silica gel X	"

	Signature	Print Name	Date	Company
Relinquished By:		Annaliese Eipert	1/12/16	Aspect
Received By:		MVOLN	1/12/16 1130	OSE
Relinquished By:				
Received By:				

Chain of Custody

Aspect CONSULTING

Client: Aspect Consulting	01-056
Client Project Name: GP Bunker C Excavation	Turn Around: 3-day ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☒ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 minimum)	Notes
6 1	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-070 –12	1/11/16	12:50	1	NWTPH-DX (BunkerC) w/silica gel X	low Conc.
7 2	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-076 –8	1/11/16	12:55	1	NWTPH-DX (BunkerC) w/silica gel X	"
8 3	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-077 –15	1/11/16	13:10	1	NWTPH-DX (BunkerC) w/silica gel X	"
9 4	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-065	1/11/16	13:50	1	NWTPH-DX (BunkerC) w/silica gel X	"
10 5	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-066	1/11/16	13:50	1	NWTPH-DX (BunkerC) w/silica gel X	"

	Signature	Print Name	Date	Company
Relinquished By:		Annaliese Eipert	1/12/16	Aspect
Received By:		mvon	1/12/16 1130	OSE
Relinquished By:				
Received By:				

Chain of Custody

Aspect CONSULTING

01-056

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-day ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☑ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes
11	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-067 -15	1/11/16	13:55	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
12	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-078 -11	1/11/16	13:55	1	NWTPH-DX (BunkerC) w/silica gel	"
13	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-079 -7	1/11/16	14:00	1	NWTPH-DX (BunkerC) w/silica gel	"
14	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCX-080 -3	1/11/16	14:00	1	NWTPH-DX (BunkerC) w/silica gel	"
15	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCXSP-006	1/11/16	11:05	1	NWTPH-DX (BunkerC) w/silica gel	"

	Signature	Print Name	Date	Company
Relinquished By:		Annaliese Eipert	1/12/16	Aspect
Received By:		OSE	1/12/16 1130	OSE
Relinquished By:				
Received By:				

Chain of Custody

Aspect CONSULTING

01-056

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 72-hr ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☒ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis	Notes
16 1	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCXSP-007	1/11/16	13:35	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
17 2	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCXSP-008	1/11/16	13:40	1	NWTPH-DX (BunkerC) w/silica gel	"
18 3	Project: 140298-001-12 Analysis: NWTPH-DX Date: _____ Time: _____ BCXSP-009	1/11/16	13:45	1	NWTPH-DX (BunkerC) w/silica gel	"
4					NWTPH-DX (BunkerC) w/silica gel	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:		Annaliese Eipert	1/12/16	Aspect
Received By:		MVOW	1/12/16 1130	OSE
Relinquished By:				
Received By:				

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 14, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-074

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 13, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 14, 2016
Samples Submitted: January 13, 2016
Laboratory Reference: 1601-074
Project: 140298-001-12

Case Narrative

Samples were collected on January 12, 2016 and received by the laboratory on January 13, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 14, 2016
Samples Submitted: January 13, 2016
Laboratory Reference: 1601-074
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-086-8**					
Laboratory ID:	01-074-01					
Bunker C	**15000**	1500	NWTPH-Dx	1-13-16	1-13-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***116***	***50-150***				
Client ID:	**BCX-081-12**					
Laboratory ID:	01-074-02					
Bunker C Range	**ND**	310	NWTPH-Dx	1-13-16	1-13-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***108***	***50-150***				
Client ID:	**BCX-083-8**					
Laboratory ID:	01-074-03					
Bunker C	**26000**	7600	NWTPH-Dx	1-13-16	1-14-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**BCX-084-4**					
Laboratory ID:	01-074-04					
Bunker C	**2200**	310	NWTPH-Dx	1-13-16	1-13-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***111***	***50-150***				
Client ID:	**BCX-085-12**					
Laboratory ID:	01-074-05					
Bunker C Range	**ND**	310	NWTPH-Dx	1-13-16	1-13-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***113***	***50-150***				

Date of Report: January 14, 2016
Samples Submitted: January 13, 2016
Laboratory Reference: 1601-074
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0113S2					
Bunker C Range	**ND**	250	NWTPH-Dx	1-13-16	1-13-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***130***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-074-04										
	ORIG	DUP									
Bunker C	**1760**	**1600**	NA	NA		NA		NA	10	NA	X1
Surrogate:											
o-Terphenyl						***111***	***103***	***50-150***			

Date of Report: January 14, 2016
Samples Submitted: January 13, 2016
Laboratory Reference: 1601-074
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-13-16

Client ID	Lab ID	% Moisture
BCX-086-8	01-074-01	16
BCX-081-12	01-074-02	20
BCX-083-8	01-074-03	34
BCX-084-4	01-074-04	19
BCX-085-12	01-074-05	19

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

Aspect CONSULTING

01-074

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: See below
Client Project Number: **140298-001-12**	☐ 24 hour Rush ☐ Standard
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☒ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature:
	Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (% moisture)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-086** –8	1/12/16	2:55 PM	1	NWTPH-DX (BunkerC) w/silica gel X	X 7-day turnaround
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-081** –12	1/12/16	2:05 PM	1	NWTPH-DX (BunkerC) w/silica gel X	72-hr
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-083** –8	1/12/16	2:15 PM	1	NWTPH-DX (BunkerC) w/silica gel X	72-hr
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-084** –4	1/12/16	2:20 PM	1	NWTPH-DX (BunkerC) w/silica gel X	72-hr
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-085** –12	1/12/16	2:10 PM	1	NWTPH-DX (BunkerC) w/silica gel X	72-hr

	Signature	Print Name	Date	Company
Relinquished By:		Annaliese Eipert	1/12/16	Aspect
Received By:		CRUZ F.	1/13/16	SPEEDY
Relinquished By:		CRUZ F.	1/13/16	SPEEDY
Received By:		MOUM	1/13/16 1200	OSC

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 19, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-093

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 14, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 19, 2016
Samples Submitted: January 14, 2016
Laboratory Reference: 1601-093
Project: 140298-001-12

Case Narrative

Samples were collected on January 13, 2016 and received by the laboratory on January 14, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 19, 2016
Samples Submitted: January 14, 2016
Laboratory Reference: 1601-093
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-089-8**					
Laboratory ID:	01-093-01					
Bunker C Range	**ND**	290	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**BCX-090-12**					
Laboratory ID:	01-093-02					
Bunker C Range	**ND**	290	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*63*	*50-150*				
Client ID:	**BCX-091-7**					
Laboratory ID:	01-093-03					
Bunker C Range	**ND**	300	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**BCX-092-8**					
Laboratory ID:	01-093-04					
Bunker C Range	**ND**	310	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				
Client ID:	**BCX-093-8**					
Laboratory ID:	01-093-05					
Bunker C Range	**ND**	330	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				

Date of Report: January 19, 2016
Samples Submitted: January 14, 2016
Laboratory Reference: 1601-093
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0115S2					
Bunker C Range	**ND**	250	NWTPH-Dx	1-15-16	1-15-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	01-083-01									
	ORIG	DUP								
Diesel Fuel #2	**24100**	**19400**	NA	NA		NA	NA	22	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1
Surrogate:										
o-Terphenyl						--- ---	*50-150*			S,S

Date of Report: January 19, 2016
Samples Submitted: January 14, 2016
Laboratory Reference: 1601-093
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-15-16

Client ID	Lab ID	% Moisture
BCX-089-8	01-093-01	14
BCX-090-12	01-093-02	14
BCX-091-7	01-093-03	16
BCX-092-8	01-093-04	19
BCX-093-8	01-093-05	23

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

01-093

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (20 moisture)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-089** -8	1/13	0940	1	NWTPH-DX (BunkerC) w/silica gel X	probably low conc.
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-090** -12	1/13	10:05	1	NWTPH-DX (BunkerC) w/silica gel X	low conc
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-091** -7	1/13	12:00	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-092** -8	1/13	12:05	1	NWTPH-DX (BunkerC) w/silica gel X	low conc
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date:_____ Time:_____ **BCX-093** -8	1/13	12:10	1	NWTPH-DX (BunkerC) w/silica gel X	low conc

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	1/7/2016	Aspect
Received By:		Luis Flores	1/14/16	ALPHA
Relinquished By:		Luis Flores	1/14/16	ALPHA
Received By:		Matt Vonderahe	1/14/16 1310	OSE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 22, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-156

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 20, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 22, 2016
Samples Submitted: January 20, 2016
Laboratory Reference: 1601-156
Project: 140298-001-12

Case Narrative

Samples were collected on January 14, 18, and 20, 2016 and received by the laboratory on January 20, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 22, 2016
Samples Submitted: January 20, 2016
Laboratory Reference: 1601-156
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-095**					
Laboratory ID:	01-156-01					
Bunker C	**470**	320	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**BCX-094**					
Laboratory ID:	01-156-02					
Bunker C Range	**ND**	320	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				
Client ID:	**BCXSP-010**					
Laboratory ID:	01-156-03					
Bunker C	**2100**	290	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				
Client ID:	**BCX-097**					
Laboratory ID:	01-156-04					
Bunker C Range	**ND**	300	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**BCX-099**					
Laboratory ID:	01-156-05					
Bunker C Range	**ND**	310	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				

Date of Report: January 22, 2016
Samples Submitted: January 20, 2016
Laboratory Reference: 1601-156
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0121S1					
Bunker C Range	**ND**	250	NWTPH-Dx	1-21-16	1-21-16	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-137-02										
	ORIG	DUP									
Diesel Fuel #2	**65.9**	**61.9**	NA	NA		NA		NA	6	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*99*	*50-150*			

Date of Report: January 22, 2016
Samples Submitted: January 20, 2016
Laboratory Reference: 1601-156
Project: 140298-001-12

% MOISTURE

Date Analyzed: 1-21-16

Client ID	Lab ID	% Moisture
BCX-095	01-156-01	21
BCX-094	01-156-02	21
BCXSP-010	01-156-03	13
BCX-097	01-156-04	15
BCX-099	01-156-05	18

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

01-156

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3 DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (MOISTURE)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-095**	1/14	14:35	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-094**	1/14	14:15	1	NWTPH-DX (BunkerC) w/silica gel	low conc
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCXSP-010**	1/18	10:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-097**	1/18	15:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-099**	1/20	09:15	1	NWTPH-DX (BunkerC) w/silica gel	low conc

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	1/20/2016	Aspect
Received By:		GARY BARRY 1:30PM	1/20/2016	ASPECT SPECIAL ASSIGN
Relinquished By:		GARY BARRY 4:05 PM	1/20/2016	SPECIAL ASSIGN
Received By:		MVOW	1/20/16 1600	OSE

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

February 3, 2016

Steve Germiat
Aspect Consulting
401 2nd Avenue South, Suite 201
Seattle, WA 98104

Re: Analytical Data for Project 140298-001-12
Laboratory Reference No. 1601-234

Dear Steve:

Enclosed are the analytical results and associated quality control data for samples submitted on January 29, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

Case Narrative

Samples were collected on January 27, 28, and 29, 2016 and received by the laboratory on January 29, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCXSP-011**					
Laboratory ID:	01-234-01					
Bunker C	**580**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***125***	***50-150***				
Client ID:	**BCXSP-012**					
Laboratory ID:	01-234-02					
Bunker C	**790**	320	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***101***	***50-150***				
Client ID:	**BCX-106**					
Laboratory ID:	01-234-03					
Bunker C Range	**ND**	270	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				
Client ID:	**BCX-113**					
Laboratory ID:	01-234-04					
Bunker C Range	**ND**	280	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***96***	***50-150***				
Client ID:	**BCX-111**					
Laboratory ID:	01-234-05					
Bunker C	**2500**	310	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***99***	***50-150***				
Client ID:	**BCX-107**					
Laboratory ID:	01-234-06					
Bunker C Range	**ND**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***92***	***50-150***				
Client ID:	**BCX-110**					
Laboratory ID:	01-234-07					
Bunker C	**550**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-112**					
Laboratory ID:	01-234-08					
Bunker C	**590**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***105***	***50-150***				
Client ID:	**BCX-108**					
Laboratory ID:	01-234-09					
Bunker C Range	**ND**	310	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***115***	***50-150***				
Client ID:	**BCX-101**					
Laboratory ID:	01-234-10					
Bunker C Range	**ND**	300	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***125***	***50-150***				
Client ID:	**BCX-109**					
Laboratory ID:	01-234-11					
Bunker C Range	**ND**	280	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***104***	***50-150***				
Client ID:	**BCX-100**					
Laboratory ID:	01-234-12					
Bunker C Range	**ND**	280	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**BCX-103**					
Laboratory ID:	01-234-13					
Bunker C Range	**ND**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***125***	***50-150***				
Client ID:	**BCX-105**					
Laboratory ID:	01-234-14					
Bunker C Range	**ND**	270	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***113***	***50-150***				

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BCX-104**					
Laboratory ID:	01-234-15					
Bunker C Range	**ND**	290	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**BCX-114**					
Laboratory ID:	01-234-16					
Bunker C Range	**ND**	300	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***111***	***50-150***				

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0201S2					
Bunker C Range	**ND**	250	NWTPH-Dx	2-1-16	2-2-16	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***106***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-234-16										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						***111***	***119***	***50-150***			
Laboratory ID:	01-237-02										
	ORIG	DUP									
Bunker C Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						***105***	***115***	***50-150***			

Date of Report: February 3, 2016
Samples Submitted: January 29, 2016
Laboratory Reference: 1601-234
Project: 140298-001-12

% MOISTURE

Date Analyzed: 2-1-16

Client ID	Lab ID	% Moisture
BCXSP-011	01-234-01	13
BCXSP-012	01-234-02	21
BCX-106	01-234-03	8
BCX-113	01-234-04	11
BCX-111	01-234-05	20
BCX-107	01-234-06	13
BCX-110	01-234-07	13
BCX-112	01-234-08	13
BCX-108	01-234-09	18
BCX-101	01-234-10	17
BCX-109	01-234-11	10
BCX-100	01-234-12	12
BCX-103	01-234-13	12
BCX-105	01-234-14	8
BCX-104	01-234-15	15
BCX-114	01-234-16	16

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody 01-234

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3-DAY ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (40 morning)	Notes
1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCXSP-011**	1/28	~~17:00~~ 16:55	1	NWTPH-DX (BunkerC) w/silica gel X	low conc.
2	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCXSP-012**	1/28	17:00	1	NWTPH-DX (BunkerC) w/silica gel X	11
3	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-106**	1/28	14:00	1	NWTPH-DX (BunkerC) w/silica gel X	11
4	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-113**	1/28	16:10	1	NWTPH-DX (BunkerC) w/silica gel X	11
5	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-111**	1/28	15:35	1	NWTPH-DX (BunkerC) w/silica gel X	11

	Signature	Print Name	Date	Company
Relinquished By:	MvdA	Matthew vonderAhe	1/29/2016	Aspect
Received By:	Luis Fenno	Luis Fenno	11/29/2016	ALPHA
Relinquished By:	Luis Fenno	Luis Fenno	11/29/2016	ALPHA
Received By:		MVOUN	11/29/16 1300	OSE

Chain of Custody

01-234

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 30 Day TAT ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☐ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (20 marked)	Notes
6 A	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-107**	1/28	14:40		NWTPH-DX (BunkerC) w/silica gel X	
7 B	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-110**	1/28	15:50		NWTPH-DX (BunkerC) w/silica gel X	
8 B	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-112**	1/28	16:05		NWTPH-DX (BunkerC) w/silica gel X	
9 A	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-108**	1/28	15:25		NWTPH-DX (BunkerC) w/silica gel X	
10 B	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-101**	1/28	10:05		NWTPH-DX (BunkerC) w/silica gel X	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew VonderAhe	1/29/2016	Aspect
Received By:	LUIS FERRO	LUIS FERRO	1/29/2016	ALPHA
Relinquished By:	LUIS FERRO	LUIS FERRO	1/29/2016	ALPHA
Received By:	M. YOUN		1/29/16 1300	ORL

Chain of Custody 01-234

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 3 DAY TAT ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis MOISTURE	Notes
11	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-109**	1/28	14:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
12	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-100**	1/27	15:30	1	NWTPH-DX (BunkerC) w/silica gel	11
13	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-103**	1/28	11:25	1	NWTPH-DX (BunkerC) w/silica gel	11
14	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-105**	1/28	11:35	1	NWTPH-DX (BunkerC) w/silica gel	11
15	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-104**	1/28	10:55	1	NWTPH-DX (BunkerC) w/silica gel	11

	Signature	Print Name	Date	Company
Relinquished By:		Matthew VonderAhe	1/29/2016	Aspect
Received By:		LUIS FERRO	1/29/2016	ALPHA
Relinquished By:		LUIS FERRO	1/29/2016	ALPHA
Received By:		M VOUN	1/29/16 1300	ORE

Chain of Custody

Page 4 of 4

01-234

Aspect CONSULTING

Client: Aspect Consulting	
Client Project Name: GP Bunker C Excavation	Turn Around: 30AY TAT ☐ 24 hour Rush ☐ Standard
Client Project Number: **140298-001-12**	
Client Contact: Steve Germiat (206) 838-5830 sgermiat@aspectconsulting.com	Disposal:
Sampler(s): ☒ MvdA ☐ AE ☐ Other	
Remarks / Additional Instructions: **For 24-hour rush** - email results to mvonderahe@aspectconsulting.com and bhanford@aspectconsulting.com within 24 hours. Full report with EDD can take longer and should be emailed to mvonderahe@aspectconsulting.com, bhanford@aspectconsulting.com and data@aspectconsulting.com .	Cooler Temperature: Receiving Notes:

	Sample	Date	Time	# of containers	Analysis (90 mos/yr)	Notes
16 1	Project: **140298-001-12** Analysis: **NWTPH-DX** Date: _____ Time: _____ **BCX-114**	1/29	09:00	1	NWTPH-DX (BunkerC) w/silica gel	low conc.
2					NWTPH-DX (BunkerC) w/silica gel	
3					NWTPH-DX (BunkerC) w/silica gel	
4					NWTPH-DX (BunkerC) w/silica gel	
5					NWTPH-DX (BunkerC) w/silica gel	

	Signature	Print Name	Date	Company
Relinquished By:		Matthew Vonderahe	1/29/2016	Aspect
Received By:		LUIS FERRO	1/29/2016	ALPHA
Relinquished By:		LUIS FERRO	1/29/2016	ALPHA
Received By:		MVOUN	1/29/16 1300	DSE

APPENDIX B

Records for Off-Site Soil Disposal

Table B-1 - Tabulation of Scale Tickets for Off-Site Disposal of Contaminated Soil, Bunker C Soil Removal Project

Project No. 140298, Pulp and Tissue Mill RAU

GP West Site, Bellingham, Washington

Disposal Date	Ticket No.	Tonnage
1/11/2016	748857	30.52
1/11/2016	748864	29.66
1/11/2016	748866	34.35
1/11/2016	748867	33.38
1/11/2016	748868	31.68
1/11/2016	748869	29.57
1/11/2016	748871	30.85
1/11/2016	748877	30.31
1/11/2016	748878	30.46
1/11/2016	748879	32.76
1/12/2016	748939	30.19
1/12/2016	748944	30.68
1/12/2016	748946	33.48
1/12/2016	748950	31.74
1/12/2016	748953	34.89
1/12/2016	748955	32.31
1/12/2016	748956	31.70
1/12/2016	748957	29.13
1/12/2016	748960	27.75
1/13/2016	748975	33.64
1/13/2016	749012	30.42
1/13/2016	749016	31.58
1/13/2016	749018	32.80
1/13/2016	749022	31.78
1/13/2016	749023	34.65
1/13/2016	749024	31.88
1/13/2016	749025	33.11
1/13/2016	749028	30.98
1/13/2016	749029	32.37
1/13/2016	749031	31.76
1/14/2016	749038	32.97
1/14/2016	749053	32.81
1/14/2016	749083	31.13
1/14/2016	749086	30.78
1/14/2016	749088	36.89
1/14/2016	749089	29.26
1/14/2016	749092	31.73
1/14/2016	749094	32.56
1/14/2016	749095	33.34

Disposal Date	Ticket No.	Tonnage
1/14/2016	749097	31.46
1/14/2016	749098	31.80
1/14/2016	749099	34.13
1/14/2016	749115	31.95
1/15/2016	749168	31.94
1/15/2016	749169	32.23
1/15/2016	749171	31.82
1/15/2016	749175	29.71
1/15/2016	749176	31.39
1/15/2016	749178	17.74
1/15/2016	749179	31.53
1/15/2016	749180	31.70
1/15/2016	749181	29.15
1/15/2016	749190	33.55
1/15/2016	749193	29.24
1/15/2016	749204	30.85
1/15/2016	749207	31.09
1/18/2016	749217	34.87
1/18/2016	749257	29.68
1/18/2016	749258	29.85
1/18/2016	749263	31.97
1/18/2016	749267	31.00
1/18/2016	749269	30.82
1/18/2016	749270	30.87
1/18/2016	749271	30.33
1/18/2016	749273	29.06
1/18/2016	749275	30.26
1/18/2016	749276	32.55
1/18/2016	749279	31.86
1/18/2016	749281	31.64
1/18/2016	749282	31.75
1/18/2016	749285	29.67
1/18/2016	749298	30.54
1/19/2016	749318	30.56
1/19/2016	749349	30.72
1/19/2016	749350	30.55
1/19/2016	749351	31.69
1/19/2016	749353	30.15
1/19/2016	749354	32.03

Table B-1 - Tabulation of Scale Tickets for Off-Site Disposal of Contaminated Soil, Bunker C Soil Removal Project

Project No. 140298, Pulp and Tissue Mill RAU

GP West Site, Bellingham, Washington

Disposal Date	Ticket No.	Tonnage
1/19/2016	749358	32.96
1/19/2016	749361	30.72
1/19/2016	749362	31.97
1/19/2016	749363	30.84
1/19/2016	749365	32.10
1/19/2016	749368	33.01
1/19/2016	749369	31.03
1/19/2016	749372	32.08
1/19/2016	749382	31.97
1/20/2016	749403	29.31
1/20/2016	749425	29.14
1/20/2016	749430	32.21
1/20/2016	749431	29.30
1/20/2016	749432	30.44
1/20/2016	749433	32.24
1/20/2016	749437	32.26
1/20/2016	749438	30.70
1/20/2016	749441	29.61
1/20/2016	749445	32.72
1/20/2016	749446	32.46
1/22/2016	749536	32.06
1/22/2016	749537	34.85
1/22/2016	749538	29.98
1/22/2016	749539	31.02
1/22/2016	749540	30.90
1/22/2016	749541	32.47
1/22/2016	749543	31.43
1/22/2016	749559	31.78
1/22/2016	749576	34.89
2/1/2016	750001	33.16
2/1/2016	750003	31.64
2/1/2016	750004	31.27
2/1/2016	750008	31.15
2/1/2016	750009	31.71
2/1/2016	750010	32.15
2/1/2016	750012	35.56
2/1/2016	750017	32.35
2/1/2016	750018	28.03
2/2/2016	750045	31.10
2/2/2016	750092	31.90
2/2/2016	750093	29.77
2/2/2016	750094	27.62
2/2/2016	750095	30.62
2/2/2016	750096	34.44
2/2/2016	750097	33.26
2/2/2016	750098	31.97
2/2/2016	750100	31.72
2/2/2016	750103	31.30
2/2/2016	750107	30.81
2/2/2016	750108	31.00
2/3/2016	750173	32.61
2/3/2016	750174	31.45
2/3/2016	750178	30.55
2/3/2016	750181	25.86
2/3/2016	750182	31.82
2/3/2016	750183	38.66
2/3/2016	750188	30.03
2/3/2016	750190	31.76
2/3/2016	750198	31.33
2/3/2016	750199	33.49
2/4/2016	750248	32.14
2/4/2016	750249	29.40
2/4/2016	750250	29.53
2/4/2016	750252	31.67
2/4/2016	750253	32.03
2/4/2016	750254	32.46
2/4/2016	750257	31.11
2/4/2016	750260	31.39
2/4/2016	750264	31.01
2/4/2016	750266	28.61
2/4/2016	750269	31.33
2/4/2016	750272	32.19
2/5/2016	750325	30.29
2/5/2016	750326	33.14
2/5/2016	750327	32.23
	Total Tonnage:	**4810.62**

WASTE MANAGEMENT

March 23, 2016

Port of Bellingham
1801 Reoder Avenue
Bellingham, Washington 98226

CERTIFICATE OF DISPOSAL

Waste Management, dba Greater Wenatchee Regional Landfill has received Petroleum Contaminated Soils for ultimate disposal Greater Wenatchee Regional Landfill .

Dates of Disposed:	**1/11/2016-2/5/2016**
Profile #:	**110516WA**
Total Tons:	**4810.66**
Waste Type:	**Petroleum Contaminated Soils**

I certify, on behalf of the above listed facility, that the above-described non hazardous waste was managed in compliance with all applicable laws.

K. Castner

Kristin Castner
Waste Management
Waste Approvals Manager – PNW

APPENDIX C

Final Quantities for Contract Bid Items

Appendix C
Final Quantities for Contract Bid Items
Bunker C Soil Removal Project

	Description of Item	Units	Final Quantities
01	Mobilization	LS	1
02A	Cut and Cap Pipe ≤ 6-Inch Diameter	each	5
02B	Cut and Cap Pipe Between 6- and 12-Inch Diameter	each	7
02C	Cut and Cap Pipe Between 12- and 30-Inch Diameter	each	2
02D	Cut and Cap Pipe ≥ 30-Inch Diameter	each	0
03	Asbestos	FA	0
04	Usable Overburden	LCY	1180.00
05	Gravel Borrow	Ton	6341.10
06	Permeable Ballast	Ton	496.27
07	Quarry Spalls	Ton	0
08	Usable Concrete	Ton	985.27
09	Inert Debris	Ton	50.04
10	Contaminated Soil	Ton	4810.62
11	Contaminated Debris	Ton	0
12	Install Water Management Equipment	LS	1
13	Operate Water Management Equipment	Day	35
14	Disposal of Non-Aqueous-Phase Liquid	Gallon	0
15	Receipt of Record Drawings, Reports, and Completion of all Punch List Items	LS	1

Notes: LS = Lump Sum. LCY = Loose Cubic Yard.

APPENDIX D

Photographs from Soil Removal Project

Photograph 1. Removal of surface slab and foundation elements.

Photograph 2. Excavation of overburden.

Photograph 3. Loading out of overburden to stockpile area.

Photograph 4. Overburden removed, contaminated material encountered.

Photograph 5. Dewatering sump in operation.

Photograph 6. Weir tank as part of water treatment system.

Photograph 7. Excavating contaminated material.

Photograph 8. Excavating contaminated material at bulkhead in NE corner of excavation.

Photograph 9. Excavating contaminated material at bulkhead in NE corner of excavation.

Photograph 10. Excavating contaminated material at bulkhead in NE corner of excavation. Orange flags mark locations of pipes that pierced bulkhead. No evidence of petroleum in pipes. Pipes were cut and capped.

Photograph 11. High-visibility separation geotextile in process of being placed under 2-foot cap of clean import material.

Photograph 12. Finished excavation with top dressing of imported permeable ballast.