Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

October 18, 2010

Edward Blodgett, Project Manager
Jacobs
5005 SW Meadows Road, Suite 100
Lake Oswego, Oregon 97035

Re: Revised Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington
1161-01

Dear Mr. Blodgett:

This letter presents the results of a Phase II environmental site assessment (ESA) at the proposed rail overpass alignment at the Port of Ridgefield (Site; Figure 1). The purpose of the assessment was to identify potential soil and groundwater contamination that may impact construction of the overpass and roadway. This report applies only to conditions south of West Mill Street. Potential contamination may be related to historical applications of oil to the north-south trending gravel road extending between Pioneer Street and Mill Street (Figure 2). The applications, historically conducted as standard dust suppression practices, were identified by Ash Creek Associates (Ash Creek) in the *REVISED Hazardous Materials Review – Soil and Groundwater Contamination*, dated August 22, 2007. To evaluate soil and groundwater conditions along the gravel road, Ash Creek conducted the following:

- Completed seven soil explorations at locations where the proposed alignments intersect the existing gravel road;
- Field screened soil from the explorations and collected soil and groundwater samples, some of which were subsequently analyzed for diesel range organics (DRO), residual range organics (RRO), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals.
- Collected global positioning system (GPS) coordinates of the soil explorations.
- Managed investigation-derived waste (IDW) and arranged for appropriate disposal/recycling.

1.0 BACKGROUND

Several potential alignments for the rail overpass bridge and approach ramps were evaluated in 2006. To assist in the evaluation of potential alignments, environmental conditions at the Site and surrounding vicinity were assessed by Ash Creek in July 2006. The following are observations and conclusions based on the assessment presented in Ash Creek's *REVISED Hazardous Materials Review – Soil and Groundwater Contamination*, dated August 22, 2007.

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- Based on a review of Washington State Department of Ecology (Ecology) files, it is likely that bunker oil was historically used for dust suppression on the gravel road. During the period when road oiling was a common practice, used oils were often utilized. Residual oils or other contaminants (e.g., metals, PCBs) may be present in surface soil on and near the gravel road.
- A former Pacific Wood Treating (PWT) facility was located north of Mill Street. PWT operated a wood treating facility for many years on the land now owned by the Port of Ridgefield. Treatment chemicals included creosote, pentachlorophenol, and arsenates. Widespread releases of treatment chemicals are documented at the facility and included in Maul Foster & Alongi's (MFA's) *Final Cell 3 Remedial Investigation and Risk Assessment Report*, dated February 23, 2007. Soil and groundwater concentrations of the contaminants exceed acceptable risk-based concentrations (RBCs) for exposure under a construction worker scenario.
- A bulk storage facility with aboveground tanks for storing petroleum was historically present on the marina property. The nearest point of the former storage facility was located about 100 feet south of the proposed alignment. Multiple reports of releases to surface water, soil, and/or sediment at the marina area were identified. Soil and sediment contamination above Washington State regulatory levels have been confirmed. Identified contaminants include PAHs, halogenated organic compounds, PCBs, and petroleum hydrocarbons.
- Incidental contamination may be related to the railroad (e.g., creosoted ties, petroleum). Near surface hydrocarbon concentrations (up to 310 milligrams per kilogram [mg/kg]) associated with a railroad spur at the north end of the marina were identified by Hahn and Associates (Hahn).

Based on the 2006 evaluations of the proposed alignments, the current selected alignment is as follows (Figure 2):

- Approach via Pioneer Street;
- Bridge over the railroad, turning northward to parallel the railroad (and intersecting the gravel road), and reaching current grade on the north portion of the current marina property; and
- At-grade roadway the remainder of the distance to the Port of Ridgefield.

Also, portions of the existing gravel roadway will be realigned as part of the project.

2.0 OBJECTIVES

The objective of this Phase II ESA was to characterize subsurface conditions at locations where the proposed alignment intersects the gravel road and to identify potential soil and/or groundwater contamination associated with historical applications of oil to the gravel road for dust suppression.

3.0 SOIL AND GROUNDWATER INVESTIGATION

Pre-field Activities. Prior to drilling at the Site, Ash Creek prepared a site-specific Health and Safety Plan (HASP) and submitted a Washington One-call utility notification. A sewer main was located adjacent and parallel to the eastern side of the gravel road. Additionally, a water pipe was located adjacent and parallel to the western side of the gravel road. Neither utility was located within 10 feet of the exploration locations.

Field Activities. Field activities were completed on August 9, 2010. On the morning of August 9, 2010, Ash Creek met with Locates Down Under, Inc. (LDU) of Oregon City, Oregon, and Stratus Corporation (Stratus) at the Site. After the explorations locations were cleared by private utility locator and hand auguring to 5 feet below ground surface (bgs), Stratus advanced seven explorations at locations shown on Figure 2. Explorations were advanced to depths ranging from 20 to 25 feet bgs using direct-push technology.

During advancement of the explorations, soil was sampled continuously for purposes of logging and field screening by photoionization detector (PID) and sheen testing. Select soil and groundwater samples were collected and submitted to TestAmerica of Beaverton, Oregon for chemical analysis. The presence of road gravel limited sample recovery in the top 1.5 feet of each location. Each exploration was abandoned using bentonite chips. Soil waste was containerized in a 55-gallon drum and stored on-site until removal and treatment by WasteXpress of Portland, Oregon.

Subsurface Conditions. Subsurface lithology at the Site consists of approximately 1.0 to 1.75 feet of gravel associated with the existing roadway underlain by clayey silt generally extending to a depth of 15 feet bgs. Varying amounts of sand mixed with silt and clay were typically encountered below 15 feet bgs and extended to the total depths of the explorations (20 to 25 feet bgs). Exploration logs and GPS coordinates of the exploration locations are included in Attachment A. Historical geotechnical explorations conducted near the Site suggest that sandy gravel is encountered at depths ranging from approximately 25 to 35 feet bgs (Ash Creek, 2007). Groundwater was typically encountered at depths ranging between 14 to 24 feet bgs.

Analytical Results. Eight surface soil samples (including one duplicate) and four groundwater samples (including one duplicate) were chemically analyzed. Each soil and groundwater sample was analyzed for DRO and RRO using Method NWTPH-Dx. During follow up analysis, three of the soil samples were also analyzed for PAHs using EPA Method 8270-SIM, PCBs using EPA Method 8082, and total metals using EPA Method 6000/7000. Analytical results are summarized below and in Tables 1 through 4. Laboratory analytical reports are included in Attachment B.

- DRO was detected in soil samples SE-1-1.5 and SE-5-1.5 at concentrations of 41.5 mg/kg and 55.7 mg/kg, respectively.
- RRO was detected in three soil samples (SE-1-1.5, SE-5-1.5, and SE-6-1.5) ranging from 28.5 mg/kg to 205 mg/kg.
- Metals were detected in three soil samples (SE-1-1.5, SE-5-1.5, and SE-6-1.5) at concentrations consistent with Clark County background levels (Ecology, 1994; Gustavson et al., 2001).
- PAHs were detected in one soil sample (SE-1-1.5) at concentrations above the Standard Method A Cleanup Levels for Unrestricted Land Use. The sample is located in the northern-most portion of the Site, near a parking area along West Mill Street.
- PCBs were detected in two samples (SE-5-1.5 and SE-6-1.5) below the Method A Soil Cleanup Level for Unrestricted Land Use.

Concentrations of DRO or RRO were not detected above reporting limits in the three groundwater samples (SE-1, SE-4, and SE-7) that were analyzed.

4.0 QUALITY ASSURANCE / QUALITY CONTROL SUMMARY

Field Control. A field duplicate was collected by splitting the field sample and submitting both samples for chemical analysis. The result of the field duplicate is compared to the initial result to assess variability in the sample matrix and bias due to sampling procedures. This comparison is normally expressed by the relative percent difference (RPD) between the initial and field duplicate samples. Both DRO and RRO concentrations in the primary sample (SE-3-1.5) and duplicate sample (SE-3-1.5 DUP) were below reporting limits.

Laboratory Control. Quality assurance/quality control (QA/QC) review of the analytical data was conducted for quality assurance. Copies of the analytical laboratory reports are included in Attachment B.

Chemical analysis of soil and/or groundwater samples consisted of one or more of the following:

- DRO and RRO by Method NWTPH-Dx;

- PAHs by EPA Method 8270-SIM;
- PCBs by EPA Method 8082; and
- Total metals by EPA Method 6000/7000.

The following criteria were evaluated in the data quality review process:

- Holding times;
- Method blanks;
- Surrogate recoveries;
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries;
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries; and
- Laboratory and duplicate RPD.

The laboratory QA/QC indicated the following:

- DRO and RRO. No concentrations of DRO or RRO were detected in the method blank. Surrogate and MS/MSD results were within control limits. A laboratory LCS/LCSD RPD limit for DRO was slightly exceeded by 5.9%. Required holding times were met.
- PAHs and PCBs. No concentrations of PAHs or PCBs were detected in the method blanks. Surrogate and LCS/LCSD results were within control limits. MS/MSD RPD limits for PCB analytes Aroclor 1016 and 1260 were exceeded by 7.6% to 10.5%. Standard laboratory hold times for follow up analysis PCBs and PAHs were slightly exceeded; however SW846 update IV recognizes hold times for PCBs to be reasonably one year.
- Total Metals. No concentrations of metals were detected in the method blank. Surrogate, LCS/LCSD, and MS/MSD results were within control limits. Required holding times were met.

The data and QA/QC findings were reviewed by Ash Creek and the data were found to be acceptable.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the Phase II investigation indicate the following:

- Petroleum hydrocarbons, PAHs, and PCBs are present in some surface soil along the proposed alignment. There was no clear pattern to the locations where hydrocarbons were detected.
- Petroleum hydrocarbons were not detected in groundwater.
- The concentrations of chemicals detected are below risk based concentrations for construction workers and industrial land use.
- The concentrations of some PAHs detected in soil at SE-1 (northernmost sample near West Mill Street) are above risk-based concentrations for unrestricted land use.

Based on the testing conducted, the following recommendations apply to soil and groundwater handling during construction activities south of West Mill Street:

- No special handling of groundwater is expected based on groundwater contamination. At the time of construction, additional testing of groundwater should be conducted to verify the absence of chemical contamination.

- No special handling of soil from depths of greater than 3 feet is expected.
- For soil at depths of less than 3 feet, one of the following is recommended:
    - Re-use soil on-site;
    - (1) Stockpile soil separately; (2) sample and analyze for petroleum, PAHs, and PCBs; and (3) profile and dispose of based on the analytical results; or
    - Profile and dispose of the soil in a licensed solid waste landfill based on the results included in this report.

If you have any questions regarding this letter, please contact the undersigned (503) 924-4704.

Sincerely,

for Christopher Sheridan
Project Manager

Herbert F. Clough, P.E.
Principal Engineer

ATTACHMENTS

Table 1 – Summary of Soil Analytical Data – TPH and Metals
Table 2 – Summary of Soil Analytical Data – PAHs
Table 3 – Summary of Soil Analytical Data - PCBs
Table 4 – Groundwater Analytical Results

Figure 1 – Site Location Map
Figure 2 – Site Plan with Proposed Alignment

Attachment A – Exploration Logs and GPS Coordinates
Attachment B – Laboratory Analytical Report

REFERENCES

Ash Creek, 2007. Design Level Geotechnical Engineering Study, Ridgefield Rail Overpass Project, Ridgefield, Washington. September 13, 2007.

Ecology, 1994. Washington Department of Ecology's publication Natural Background Soil Metals Concentrations in Washington State. October 1994.

Gustavson et al., 2001. U.S. Geological Survey Professional Paper 1648 - Geochemical Landscapes of the Conterminous United States - New Map Presentations for 22 Elements.

Table 1
Summary of Soil Analytical Data - TPH and Metals
Ridgefield Rail Overpass Project
Ridgefield, Washington

Sample ID	Sample Depth	Collection Date	TPH		Metals							
			DRO	RRO	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
			Milligrams per kilogram (mg/kg)									
SE-1-1.5	1.5	8/9/2010	41.5	205	4.81	84.2	<0.539	16.2	12.3	<0.104	<0.539	<0.539
SE-2-1.5	1.5	8/9/2010	<16.1	<32.2	--	--	--	--	--	--	--	--
SE-3-1.5	1.5	8/9/2010	<14.6	<29.2	--	--	--	--	--	--	--	--
SE-3-1.5 Dup	1.5	8/9/2010	<14.1	<28.2	--	--	--	--	--	--	--	--
SE-4-1.5	1.5	8/9/2010	<14.8	<29.6	--	--	--	--	--	--	--	--
SE-5-1.5	1.5	8/9/2010	55.7	166	3.72	89.4	<0.518	11.2	7.63	<0.0660	<0.518	<0.518
SE-6-1.5	1.5	8/9/2010	<13.9	28.5	2.89	157	<0.539	19.1	16.4	<0.0795	<0.539	<0.539
SE-7-1.5	1.5	8/9/2010	<15.8	<31.6	--	--	--	--	--	--	--	--
MTCA Method A Level for Unrestricted Land Use			2,000	2,000	20	--	2	--	250	--	--	--
MTCA Method A Level for Industrial Land Use			2,000	2,000	20	--	2	--	1,000	--	--	--
Background Metal Concentrations, Clark County, Washington			--	--	5.8	650	0.9	26	17	0.04	0.8	0.6

Notes:

1. Analysis of Diesel Range Organics (DRO) and Residual Range Organics (RRO) by Method NWTPH-Dx.
2. Analysis of Total Metals by EPA Method 6000/7000.
3. < = Analyte is not detected above the given Method Reporting Limit (MRL).
4. Detections above the MRL are **bold**.
5. -- = Value is not available.
6. MTCA = Model Toxics Control Act
7. Background Metal Concentrations from Washington Department of Ecology's publication Natural Background Soil Metals Concentrations in Washington State. October 1994.
   Barium background levels derived from U.S. Geological Survey Professional Paper 1648 - Geochemical Landscapes of the Conterminous United States -
   New Map Presentations for 22 Elements (Gustavson Et al., 2001).
8. mg/kg = milligrams per kilogram

Table 2
Summary of Soil Analytical Data - PAHs
Ridgefield Rail Overpass Project
Ridgefield, Washington

Sample ID	Sample Depth	Collection Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
			Micrograms per kilogram (µg/kg)															
SE-1-1.5	1.5	8/9/2010	21.1	<14.1	63.3	142	138	121	98.2	123	167	26.2	255	22	92.9	<14.4	149	279
SE-2-1.5	1.5	8/9/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SE-3-1.5	1.5	8/9/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SE-3-1.5 Dup	1.5	8/9/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SE-4-1.5	1.5	8/9/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SE-5-1.5	1.5	8/9/2010	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9	<13.9
SE-6-1.5	1.5	8/9/2010	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7	<14.7
SE-7-1.5	1.5	8/9/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Level for Unrestricted Land Use			--	--	--	1,000	100	1,000	--	1,000	10,000	1,000	--	--	1,000	5,000	--	--
MTCA Method A Level for Industrial Land Use			--	--	--	20,000	2,000	20,000	--	20,000	200,000	20,000	--	--	20,000	5,000	--	--

Notes:

1. Analysis of polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270-SIM.
2. < = Analyte is not detected above the given Method Reporting Limit (MRL).
3. Detections above the MRL are **bold**.
4. Highlighted concentrations exceed one or more toxicity equivalent Method A levels.
5. -- = Value is not available.
6. MTCA = Model Toxics Control Act
7. mg/kg = milligrams per kilogram

Table 3
Summary of Soil Analytical Data - PCBs
Ridgefield Rail Overpass Project
Ridgefield, Washington

Sample ID	Sample Depth	Collection Date	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
			Milligrams per kilogram (mg/kg)						
SE-1-1.5	1.5	8/9/2010	<0.0359	<0.0722	<0.0359	<0.0359	<0.0359	<0.0359	<0.0359
SE-2-1.5	1.5	8/9/2010	--	--	--	--	--	--	--
SE-3-1.5	1.5	8/9/2010	--	--	--	--	--	--	--
SE-3-1.5 Dup	1.5	8/9/2010	--	--	--	--	--	--	--
SE-4-1.5	1.5	8/9/2010	--	--	--	--	--	--	--
SE-5-1.5	1.5	8/9/2010	<0.0344	<0.0693	<0.0344	<0.0344	**0.11**	<0.0344	<0.0344
SE-6-1.5	1.5	8/9/2010	<0.0728	<0.147	<0.0728	<0.0728	<0.0728	**0.427**	<0.0728
SE-7-1.5	1.5	8/9/2010	--	--	--	--	--	--	--
MTCA Method A Level for Unrestricted Land Use			1.0 mg/kg (Total PCBs)						
MTCA Method A Level for Industrial Land Use			10 mg/kg (Total PCBs)						

Notes:

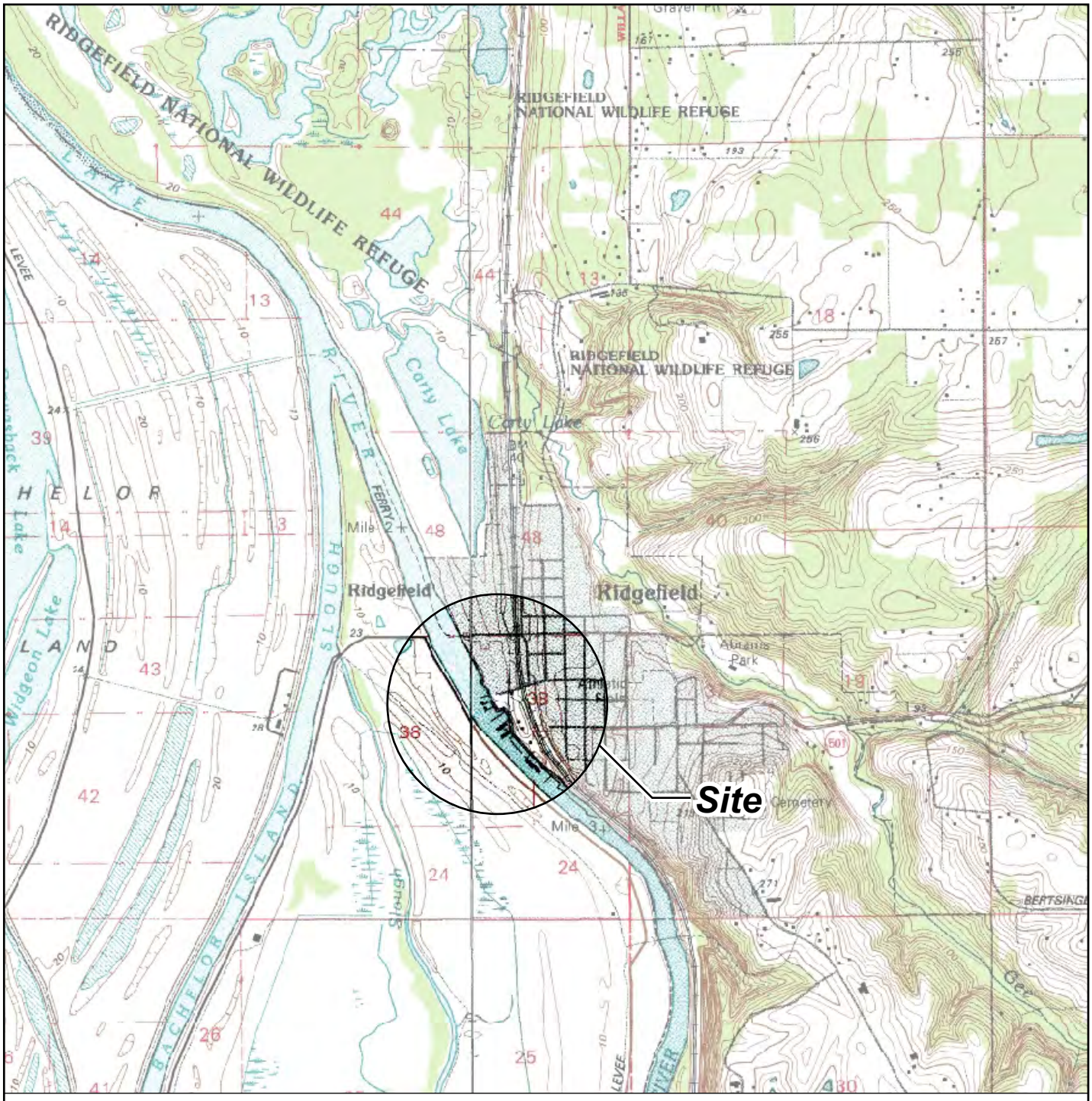
1. Analysis of polychlorinated biphenyls (PCBs) by EPA Method 8082
2. < = Analyte is not detected above the given Method Reporting Limit (MRL).
3. Detections above the MRL are **bold**.
4. -- = Value is not available.
5. MTCA = Model Toxics Control Act
6. mg/kg = milligrams per kilogram

Table 4
Summary of Groundwater Analytical Data - TPH
Ridgefield Rail Overpass Project
Ridgefield, Washington

Sample ID	Collection Date	DRO	RRO
		Milligrams per liter (mg/L)	
SE-1	8/9/2010	<0.0952	<0.476
SE-1 Dup	8/9/2010	<0.0952	<0.476
SE-4	8/9/2010	<0.0952	<0.476
SE-7	8/9/2010	<0.0952	<0.476
Method A Level for Unrestricted Land Use		0.5	0.5

Notes:

1. Analysis of Diesel Range Organics (DRO) and Residual
2. Range Organics (RRO) by Method NWTPH-Dx.
3. mg/L = milligrams per Liter.



Base map prepared from USGS 7.5-minute quadrangle of Ridgefield, WA, dated 1990 as provided by Topozone.

0 2,000 4,000

Scale in Feet

N

Site Location Map

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Ash Creek Associates, Inc. Environmental and Geotechnical Consultants	Project Number 1161-01	Figure 1
	August 2010	

0 100 200

Scale in Feet

Legend:

SE-1 ⊕ Soil Exploration Location

Note: Base map prepared from an AutoCAD file provided by Jacobs (2007) and an aerial photograph from Seamless.usgs.gov (2007).

Site Exploration Plan

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Ash Creek Associates, Inc.
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Attachment A

Exploration Logs and GPS Coordinates

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:
MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and push probe explorations is estimated based on visual observation and is presented parenthetically on test pit and push probe exploration logs.

SAND and GRAVEL Density	Standard Penetration Resistance in Blows/Foot
Very loose	0 - 4
Loose	4 - 10
Medium dense	10 - 30
Dense	30 - 50
Very dense	>50

SILT or CLAY Density	Standard Penetration Resistance in Blows/Foot	Approximate Shear Strength in TSF
Very soft	0 - 2	<0.125
Soft	2 - 4	0.125 - 0.25
Medium stiff	4 - 8	0.25 - 0.5
Stiff	8 - 15	0.5 - 1.0
Very Stiff	15 - 30	1.0 - 2.0
Hard	>30	>2.0

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

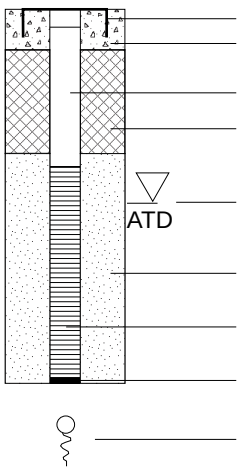
BORING AND PUSH-PROBE SYMBOLS

- Recovery
- No Recovery
- Temporarily Screened Interval
- PID — Photoionization Detector Reading
- W — Water Sample
- Sample Submitted for Chemical Analysis
- NS — No Sheen
- SS — Slight Sheen
- MS — Moderate Sheen
- HS — Heavy Sheen
- BF — Biogenic Film

TEST PIT SOIL SAMPLES

- Grab (Jar)
- Bag
- Shelby Tube

Groundwater Observations and Monitoring Well Construction



Flush Mounted Monument
Concrete Surface Seal
Well Casing
Bentonite Seal
Groundwater Level on Date or (ATD) At Time of Drilling
Sand Pack
Well Screen
End Cap
Groundwater Seepage (Test Pits)

Key to Exploration Logs

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Project Number 1161-01
September 2010

Figure Key

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Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-1**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Continuous Core
Depth to Water (ATD): ~21'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
			<5	NS	GRAVEL with silt (GM); very pale brown (10YR 1/4).
					GRAVEL with silt (GM); dark bluish gray (GLEY 7/1), moist.
		SE-1-15	<5	NS	Clayey SILT (ML); dark bluish gray (GLEY 7/1), dry, medium plasticity, medium stiff.
5		SE-1-5	<5	NS	
			<5	NS	
10			<5	NS	
			<5	NS	Becomes pale brown (10YR 6/3) with very fine sand (5-10%).
15			<5	NS	Becomes moist.
					Sandy SILT (SM); dark bluish gray (GLEY 7/1), moist, stiff, (~50% silt, ~50% very fine sand).
		SE-1-19	<5	NS	
20			<5	NS	Becomes wet.
			<5	NS	
25					Bottom of Boring at 25.0' BGS.
30					
35					

SE-1 (Water Sample)

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-2**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Continuous Core
Depth to Water (ATD): 18.2'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
					GRAVEL with silt (GM); very pale brown (10YR 1/4).
		SE-2-1.5	<5	NS	Clayey SILT (ML); reddish brown (5YR 4/3), moist, medium plasticity, medium stiff.
			<5	NS	
5		SE-2-4.5			Becomes light reddish brown (5YR 6/1) and soft.
			<5	NS	
			<5	NS	Becomes gray (5YR 6/1).
10			<5	NS	
			<5	NS	Becomes light reddish brown (5YR 6/1).
15			<5	NS	Increasing very fine sand (20%).
		SE-2-17			Becomes wet. Increasing very fine sand (25%).
			<5	NS	
20			<5	NS	Silty SAND (SM); light reddish brown (5YR 6/1), wet, poorly graded, loose, (~60% very fine sand, ~40% silt). Becomes gray (5YR 5/1).
			<5	NS	
25					Bottom of Boring at 25.0' BGS.
30					
35					

SE-2 (Water Sample)

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

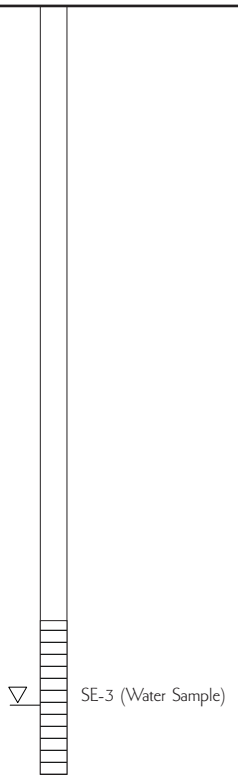
Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-3**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Dual Core
Depth to Water (ATD): 18.4'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
			<5	NS	Silty GRAVEL (GM); very pale brown (10YR 1/4).
					Becomes dark gray.
		SE-3-1.5			Clayey SILT (ML); gray (5YR 6/1), moist, high plasticity, medium stiff.
5		SE-3-4.5	<5	NS	
			<5	NS	
10			<5	NS	Becomes reddish brown (5YR 4/3) and soft.
			<5	NS	
15			<5	NS	
			<5	NS	Silty, fine SAND (SM); reddish brown (5YR 4/3), wet, poorly graded, loose.
20					Bottom of Boring at 20.0' BGS.
25					
30					
35					



Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-4**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Dual Core
Depth to Water (ATD): 24'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SE-4-1.5	<5	NS	Silty GRAVEL (GM); pale brown (5YR 1/4), dry, medium dense.
5		SE-4-5.5	<5	NS	Clayey SILT (ML) with organic debris; gray (5YR 6/1), moist, medium to high plasticity, medium stiff.
					Clayey SILT (ML); gray (5YR 6/1), moist, medium to high plasticity, medium stiff.
10			<5	NS	
			<5	NS	
15			<5	NS	Becomes wet and soft.
					Becomes reddish brown (5YR 4/3).
		SE-4-18			Increasing fine sand (20%).
			<5	NS	
20					Becomes gray (5YR 6/1).
			<5	NS	
25			<5	NS	Bottom of Boring at 25.0' BGS.
30					
35					

SE-4 (Water Sample)

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

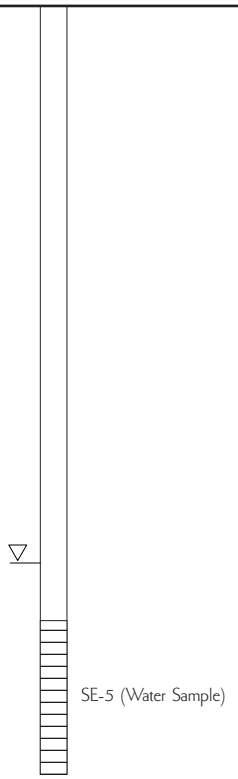
Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-5**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Dual Core
Depth to Water (ATD): 14.5'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
			<5	NS	Silty GRAVEL (GM); very pale brown (10YR 1/4), dry, well graded, medium dense, (60% gravel, 40% silt).
		SE-5-1.5	<5	NS	Clayey SILT (ML); gray (5YR 6/1), moist, medium to high plasticity, medium stiff.
5		SE-5-4.5	<5	NS	
			<5	NS	Increasing very fine sand (15%).
10			<5	NS	Sandy SILT (ML); reddish brown (5YR 4/3), moist, soft, (55% silt, 40% very fine sand, 5% clay).
			<5	NS	Becomes wet and very soft.
15			<5	NS	
			<5	NS	
20					Bottom of Boring at 20.0' BGS.
25					
30					
35					



Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-6**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Dual Core
Depth to Water (ATD): 24.1'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SE-6-1.5	<5	NS	Silty GRAVEL (GM); pale brown (5YR 1/4), dry, medium dense.
			<5	NS	
		SE-6-4.5			
5			<5	NS	Organic-rich silty CLAY; very dark gray, with woody debris.
					Medium-fine SAND with silt; gray (5YR 6/1), moist, medium dense.
			<5	NS	Clayey SILT (ML); gray (5YR 6/1), moist, medium to high plasticity, medium stiff.
10			<5	NS	
					Sandy SILT (ML); reddish brown (5YR 4/3), moist to wet, soft, (85% silt, 15% fine sand).
			<5	NS	
15			<5	NS	
		SE-6-19	<5	NS	Becomes gray (5YR 6/1). Increasing sand (~20%).
20			<5	NS	Becomes wet.
			<5	NS	
25					Bottom of Boring at 25.0' BGS.
30					
35					

SE-6 (Water Sample)

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

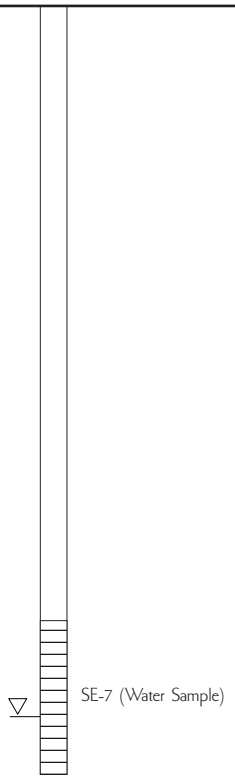
Phase II Environmental Site Assessment
Ridgefield Rail Overpass Project
Ridgefield, Washington

Boring Number: **SE-7**

Project Number: **1161-01**
Logged By: S. Gray
Date: August 9, 2010
Site Conditions: Gravel Road
Drilling Contractor: Stratus
Drilling Equipment: 7822 DT
Sampler Type: Dual Core
Depth to Water (ATD): 18.5'
Surface Elevation: –

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
		SE-7-1.5	<5	NS	Silty GRAVEL (GM); very pale brown (10YR 1/4), moist to dry, well graded, medium dense, (60% angular gravel, 40% silt).
			<5	NS	
5		SE-7-4.5	<5	NS	Clayey SILT (ML); gray (5YR 6/1), moist, medium to high plasticity, medium stiff.
			<5	NS	
10			<5	NS	Becomes reddish brown (5YR 4/3) and soft.
		SE-7-13	<5	NS	
15			<5	NS	Sandy SILT (ML); reddish brown (5YR 4/3), wet, soft, (~60% silt, ~40% very fine sand, ≤5% clay).
			<5	NS	
20					Bottom of Boring at 20.0' BGS.
25					
30					
35					



GPS Coordinates
Ridgefield Rail Overpass Project
Ridgefield, Washington

Location ID	Unfilt_Pos	Data_Dicti	Northing	Easting	Point_ID
SE-1	45	Generic	184379.051	1066987.899	1
SE-2	46	Generic	184321.799	1067077.675	2
SE-3	45	Generic	184280.046	1067145.737	3
SE-4	45	Generic	184100.937	1067135.366	4
SE-5	45	Generic	184062.841	1067214.453	5
SE-6	59	Generic	184014.124	1067171.127	6
SE-7	46	Generic	183941.158	1067264.255	7

Attachment B

Laboratory Analytical Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

ORELAP#: OR100021

August 17, 2010

Mike Stevens
Ash Creek Associates, Inc.
3015 SW First Avenue
Portland, OR 97201

RE: Ridgefield Overpass

Enclosed are the results of analyses for samples received by the laboratory on 08/10/10 14:36. The following list is a summary of the Work Orders contained in this report, generated on 08/17/10 16:46.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
PTH0302	Ridgefield Overpass	1161-01

TestAmerica Portland

Christina Woodcock For Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Mike Stevens	08/17/10 16:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE-1	PTH0302-01	Water	08/09/10 09:30	08/10/10 14:36
SE-1Dup	PTH0302-02	Water	08/09/10 09:30	08/10/10 14:36
SE-4	PTH0302-05	Water	08/09/10 15:50	08/10/10 14:36
SE-7	PTH0302-08	Water	08/09/10 14:50	08/10/10 14:36

TestAmerica Portland

Christina Woodcock For Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Mike Stevens	08/17/10 16:46

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0302-01 (SE-1)			**Water**			**Sampled: 08/09/10 09:30**				
Diesel Range Organics	NWTPH-Dx	ND	-----	0.0952	mg/l	1x	10H0389	08/12/10 13:30	08/13/10 11:30	
Residual Range/Heavy Oil Organics	"	ND	-----	0.476	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*69.5%*		*50 - 150 %*	"			"
PTH0302-02 (SE-1Dup)			**Water**			**Sampled: 08/09/10 09:30**				
Diesel Range Organics	NWTPH-Dx	ND	-----	0.0952	mg/l	1x	10H0389	08/12/10 13:30	08/13/10 11:43	
Residual Range/Heavy Oil Organics	"	ND	-----	0.476	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*61.9%*		*50 - 150 %*	"			"
PTH0302-05 (SE-4)			**Water**			**Sampled: 08/09/10 15:50**				
Diesel Range Organics	NWTPH-Dx	ND	-----	0.0952	mg/l	1x	10H0389	08/12/10 13:30	08/13/10 11:57	
Residual Range/Heavy Oil Organics	"	ND	-----	0.476	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*60.8%*		*50 - 150 %*	"			"
PTH0302-08 (SE-7)			**Water**			**Sampled: 08/09/10 14:50**				
Diesel Range Organics	NWTPH-Dx	ND	-----	0.0952	mg/l	1x	10H0389	08/12/10 13:30	08/13/10 12:15	
Residual Range/Heavy Oil Organics	"	ND	-----	0.476	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*54.7%*		*50 - 150 %*	"			"

TestAmerica Portland

Christina Woodcock For Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Mike Stevens	08/17/10 16:46

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0389 **Water Preparation Method: EPA 3510 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0389-BLK1)								**Extracted: 08/12/10 13:30**						
Diesel Range Organics	NWTPH-Dx	ND	---	0.100	mg/l	1x	--	--	--	--	--	--	08/13/10 10:37	
Residual Range/Heavy Oil Organics	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 101%*			*Limits: 50-150%*	"							*08/13/10 10:37*	
LCS (10H0389-BS1)								**Extracted: 08/12/10 13:30**						
Diesel Range Organics	NWTPH-Dx	2.38	---	0.100	mg/l	1x	--	2.50	95.1%	(50-150)	--	--	08/13/10 10:54	
Residual Range/Heavy Oil Organics	"	1.22	---	0.500	"	"	--	1.50	81.1%	"	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 105%*			*Limits: 60-120%*	"							*08/13/10 10:54*	
LCS Dup (10H0389-BSD1)								**Extracted: 08/12/10 13:30**						
Diesel Range Organics	NWTPH-Dx	2.25	---	0.100	mg/l	1x	--	2.50	89.8%	(50-150)	5.69%	(20)	08/13/10 11:12	
Residual Range/Heavy Oil Organics	"	1.27	---	0.500	"	"	--	1.50	84.5%	"	4.06%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 95.7%*			*Limits: 60-120%*	"							*08/13/10 11:12*	

TestAmerica Portland

Christina Woodcock For Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Mike Stevens	08/17/10 16:46

Notes and Definitions

Report Specific Notes:

None

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

Christina Woodcock For Darrell Auvil, Project Manager

CHAIN OF COUSTODY RECORD

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

PTH0302

Project Manager: Chris Sheridan
Project Name: Ridgefield Overpass
Project Number: 1161-01
Sampler Name: S. Gray

Analytical Lab: Test America
Report To: Chris Sheridan
Page: 1 of 1

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: NwTPHDX w/ Si Gel Cleanup	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
SE-1	8/9/10	0930	1	X			X		X					X						X		X		
SE-1 DUP	8/9/10	0930	1	X			X		X					X						X		X		
SE-2	8/9/10	1050	1	X			X		X					X						H		X		
SE-3	8/9/10	1150	1	X			X		X					X						H		X		
SE-4	8/9/10	1550	1	X			X		X					X						X		X		
SE-5	8/9/10	1255	1	X			X		X					X						H		X		
SE-6	8/9/10	1355	1	X			X		X					X						H		X		
SE-7	8/9/10	1450	1	X			X		X					X						X		X		

Special Instructions:

H = Hold / Please retain extra sample volume for potential follow ups.

Method of Shipment:

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
[signature]	8/10/10	1200	[signature]	8/10/10	14:15
[signature]	8/10/10	14:30	[signature]	8/10/10	1430

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N

5.9
5.2
5.7

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTH0302 Date/Time Received: 8-10-10 1436

Client Name and Project: ASH CREEK

Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☑PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1 1 1 ____ ____

Temperatures: 5.9 5.2 5.7 ____ ____

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice
__Ice Melted
__W/in 4 Hrs of collection
__Other:_____

RAYTECH

Initials: [illegible]

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☑	☐	3. Chain of Custody present? If no, document on NOD.
	☑	☐	4. Bottles received intact? If no, document on NOD.
	☑	☐	5. Sample is not multiphasic? If no, document on NOD.
	☑	☐	6. Proper Container and preservatives used? If no, document on NOD.
☑	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☑	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☑	☐	☐	9. HF Dilution required?
	☑	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☑	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☑	☐	12. Is the "Sampled by" section of the COC completed?
☑	☐	☐	13. Were VOA/Oil Syringe samples without headspace?
☑	☐	☐	14. Were VOA vials preserved? ☐HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☑	15. Did samples require preservation with sodium thiosulfate?
☑	☐	☐	16. If yes to #15, was the residual chlorine test negative? If no, document on NOD.
☑	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☑	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☑	☐	☐	19. Are analyses with short holding times received in hold?
	☑	☐	20. Was Standard Turn Around (TAT) requested?
	☑	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTH0302

Login Checks:

Initials: JM

N/A	Yes	No	
	☑	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☑	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☑	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☐	☑	☐	25. Were special log in instructions read and followed?
	☑	☐	26. Were tests logged checked against the COC?
☑	☐	☐	27. Were rush notices printed and delivered?
☑	☐	☐	28. Were short hold notices printed and delivered?
☑	☐	☐	29. Were subcontract COCs printed?
☑	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: JM

N/A	Yes	No	
☑	☐	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☑	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☑	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☑	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☑	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☑	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210
ORELAP#: OR100021

September 08, 2010

Chris Sheridan
Ash Creek Associates, Inc.
3015 SW First Avenue
Portland, OR 97201

RE: Ridgefield Overpass

Enclosed are the results of analyses for samples received by the laboratory on 08/10/10 14:36. The following list is a summary of the Work Orders contained in this report, generated on 09/08/10 16:13.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
PTH0303	Ridgefield Overpass	1161-01

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE-1-1.5	PTH0303-01	Soil	08/09/10 09:10	08/10/10 14:36
SE-2-1.5	PTH0303-04	Soil	08/09/10 10:20	08/10/10 14:36
SE-3-1.5	PTH0303-07	Soil	08/09/10 11:30	08/10/10 14:36
SE-3-1.5 Dup	PTH0303-08	Soil	08/09/10 11:30	08/10/10 14:36
SE-4-1.5	PTH0303-10	Soil	08/09/10 15:25	08/10/10 14:36
SE-5-1.5	PTH0303-13	Soil	08/09/10 12:30	08/10/10 14:36
SE-6-1.5	PTH0303-16	Soil	08/09/10 14:20	08/10/10 14:36
SE-7-1.5	PTH0303-19	Soil	08/09/10 13:30	08/10/10 14:36

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Analytical Case Narrative

TestAmerica - Portland, OR

PTH0303

Amended report to reflect additional testing.

Clean Water Act and SW 846 update 4, both recognize hold times for PCBs to reasonably be one year acceptance of the new updates is up to regulatory agency.

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3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01 (SE-1-1.5)			**Soil**			**Sampled: 08/09/10 09:10**				
Diesel Range Organics	NWTPH-Dx	**41.4**	-----	13.3	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 13:45	**Q10**
Residual Range/Heavy Oil Organics	"	**205**	-----	26.7	"	"	"	"	"	**Q10**
Surrogate(s): 1-Chlorooctadecane				*90.5%*		*50 - 150 %*	"		"	
PTH0303-04 (SE-2-1.5)			**Soil**			**Sampled: 08/09/10 10:20**				
Diesel Range Organics	NWTPH-Dx	ND	-----	16.1	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 10:53	
Residual Range/Heavy Oil Organics	"	ND	-----	32.2	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*93.7%*		*50 - 150 %*	"		"	
PTH0303-07 (SE-3-1.5)			**Soil**			**Sampled: 08/09/10 11:30**				
Diesel Range Organics	NWTPH-Dx	ND	-----	14.6	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 11:49	
Residual Range/Heavy Oil Organics	"	ND	-----	29.2	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*102%*		*50 - 150 %*	"		"	
PTH0303-08 (SE-3-1.5 Dup)			**Soil**			**Sampled: 08/09/10 11:30**				
Diesel Range Organics	NWTPH-Dx	ND	-----	14.1	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 12:07	
Residual Range/Heavy Oil Organics	"	ND	-----	28.2	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*89.3%*		*50 - 150 %*	"		"	
PTH0303-10 (SE-4-1.5)			**Soil**			**Sampled: 08/09/10 15:25**				
Diesel Range Organics	NWTPH-Dx	ND	-----	14.8	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 12:27	
Residual Range/Heavy Oil Organics	"	ND	-----	29.6	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*108%*		*50 - 150 %*	"		"	
PTH0303-13 (SE-5-1.5)			**Soil**			**Sampled: 08/09/10 12:30**				
Diesel Range Organics	NWTPH-Dx	**55.7**	-----	12.9	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 12:45	**Q6**
Residual Range/Heavy Oil Organics	"	**166**	-----	25.8	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*98.1%*		*50 - 150 %*	"		"	
PTH0303-16 (SE-6-1.5)			**Soil**			**Sampled: 08/09/10 14:20**				
Diesel Range Organics	NWTPH-Dx	ND	-----	13.9	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 13:05	

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-16 (SE-6-1.5)			**Soil**			**Sampled: 08/09/10 14:20**				
Residual Range/Heavy Oil Organics	"	**28.5**	-----	27.7	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*110%*		*50 - 150 %*	"			"
PTH0303-19 (SE-7-1.5)			**Soil**			**Sampled: 08/09/10 13:30**				
Diesel Range Organics	NWTPH-Dx	ND	-----	15.8	mg/kg dry	1x	10H0513	08/16/10 21:55	08/17/10 13:25	
Residual Range/Heavy Oil Organics	"	ND	-----	31.6	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane				*96.1%*		*50 - 150 %*	"			"

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Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01 (SE-1-1.5)			**Soil**				**Sampled: 08/09/10 09:10**			
Arsenic	EPA 6020	**4.81**	-----	0.539	mg/kg dry	1x	10H0931	08/27/10 19:38	08/30/10 15:01	
Barium	"	**84.2**	-----	0.539	"	"	"	"	"	
Cadmium	"	ND	-----	0.539	"	"	"	"	"	
Chromium	"	**16.2**	-----	1.08	"	"	"	"	"	
Lead	"	**12.3**	-----	0.539	"	"	"	"	"	
Selenium	"	ND	-----	0.539	"	"	"	"	08/29/10 18:50	
Silver	"	ND	-----	0.539	"	"	"	"	08/30/10 15:01	
PTH0303-13 (SE-5-1.5)			**Soil**				**Sampled: 08/09/10 12:30**			
Arsenic	EPA 6020	**3.72**	-----	0.518	mg/kg dry	1x	10H0931	08/27/10 19:38	08/30/10 15:48	
Barium	"	**89.4**	-----	0.518	"	"	"	"	"	
Cadmium	"	ND	-----	0.518	"	"	"	"	"	
Chromium	"	**11.2**	-----	1.04	"	"	"	"	"	
Lead	"	**7.63**	-----	0.518	"	"	"	"	"	
Selenium	"	ND	-----	0.518	"	"	"	"	08/29/10 19:05	
Silver	"	ND	-----	0.518	"	"	"	"	08/30/10 15:48	
PTH0303-16 (SE-6-1.5)			**Soil**				**Sampled: 08/09/10 14:20**			
Arsenic	EPA 6020	**2.89**	-----	0.539	mg/kg dry	1x	10H0931	08/27/10 19:38	08/30/10 15:52	
Barium	"	**157**	-----	0.539	"	"	"	"	"	
Cadmium	"	ND	-----	0.539	"	"	"	"	"	
Chromium	"	**19.1**	-----	1.08	"	"	"	"	"	
Lead	"	**16.4**	-----	0.539	"	"	"	"	"	
Selenium	"	ND	-----	0.539	"	"	"	"	08/29/10 19:09	
Silver	"	ND	-----	0.539	"	"	"	"	08/30/10 15:52	

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Total Mercury per EPA Method 7471A

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01 (SE-1-1.5)			**Soil**				**Sampled: 08/09/10 09:10**			
Mercury	EPA 7471A	ND	-----	0.104	mg/kg dry	1x	10H0915	08/27/10 12:02	08/27/10 17:07	
PTH0303-13 (SE-5-1.5)			**Soil**				**Sampled: 08/09/10 12:30**			
Mercury	EPA 7471A	ND	-----	0.0660	mg/kg dry	1x	10H0915	08/27/10 12:02	08/27/10 17:09	
PTH0303-16 (SE-6-1.5)			**Soil**				**Sampled: 08/09/10 14:20**			
Mercury	EPA 7471A	ND	-----	0.0795	mg/kg dry	1x	10H0915	08/27/10 12:02	08/27/10 17:12	

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Polychlorinated Biphenyls per EPA Method 8082

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01RE1 (SE-1-1.5)		**Soil**				**Sampled: 08/09/10 09:10**				**H1, N1**
Aroclor 1016	EPA 8082	ND	-----	35.9	ug/kg dry	1x	10H0945	08/30/10 09:30	09/01/10 16:37	
Aroclor 1221	"	ND	-----	72.2	"	"	"	"	"	
Aroclor 1232	"	ND	-----	35.9	"	"	"	"	"	
Aroclor 1242	"	ND	-----	35.9	"	"	"	"	"	
Aroclor 1248	"	ND	-----	35.9	"	"	"	"	"	
Aroclor 1254	"	ND	-----	35.9	"	"	"	"	"	
Aroclor 1260	"	ND	-----	35.9	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl				*93.7%*		*16 - 149 %*	"			"
PTH0303-13 (SE-5-1.5)		**Soil**				**Sampled: 08/09/10 12:30**				**H1, N1**
Aroclor 1016	EPA 8082	ND	-----	34.4	ug/kg dry	1x	10H0945	08/30/10 09:30	08/31/10 18:25	
Aroclor 1221	"	ND	-----	69.3	"	"	"	"	"	
Aroclor 1232	"	ND	-----	34.4	"	"	"	"	"	
Aroclor 1242	"	ND	-----	34.4	"	"	"	"	"	
Aroclor 1248	"	**110**	-----	34.4	"	"	"	"	"	
Aroclor 1254	"	ND	-----	34.4	"	"	"	"	"	
Aroclor 1260	"	ND	-----	34.4	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl				*91.9%*		*16 - 149 %*	"			"
PTH0303-16 (SE-6-1.5)		**Soil**				**Sampled: 08/09/10 14:20**				**H1, N1**
Aroclor 1016	EPA 8082	ND	-----	72.8	ug/kg dry	2x	10H0945	08/30/10 09:30	08/31/10 18:02	
Aroclor 1221	"	ND	-----	147	"	"	"	"	"	
Aroclor 1232	"	ND	-----	72.8	"	"	"	"	"	
Aroclor 1242	"	ND	-----	72.8	"	"	"	"	"	
Aroclor 1248	"	ND	-----	72.8	"	"	"	"	"	
Aroclor 1254	"	**427**	-----	72.8	"	"	"	"	"	
Aroclor 1260	"	ND	-----	72.8	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl				*79.3%*		*16 - 149 %*	"			"

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Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01 (SE-1-1.5)		**Soil**				**Sampled: 08/09/10 09:10**				**H8**
Acenaphthene	EPA 8270m	**21.1**	-----	14.4	ug/kg dry	1x	10H0944	08/30/10 10:00	09/01/10 20:24	
Acenaphthylene	"	ND	-----	14.4	"	"	"	"	"	
Anthracene	"	**63.3**	-----	14.4	"	"	"	"	"	
Benzo (a) anthracene	"	**142**	-----	14.4	"	"	"	"	"	
Benzo (a) pyrene	"	**138**	-----	14.4	"	"	"	"	"	
Benzo (b) fluoranthene	"	**121**	-----	14.4	"	"	"	"	"	
Benzo (ghi) perylene	"	**98.2**	-----	14.4	"	"	"	"	"	
Benzo (k) fluoranthene	"	**123**	-----	14.4	"	"	"	"	"	
Chrysene	"	**167**	-----	14.4	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	**26.2**	-----	14.4	"	"	"	"	"	
Fluoranthene	"	**255**	-----	14.4	"	"	"	"	"	
Fluorene	"	**22.0**	-----	14.4	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	**92.9**	-----	14.4	"	"	"	"	"	
Naphthalene	"	ND	-----	14.4	"	"	"	"	"	
Phenanthrene	"	**149**	-----	14.4	"	"	"	"	"	
Pyrene	"	**279**	-----	14.4	"	"	"	"	"	
Surrogate(s): *Fluorene-d10*			*71.6%*			*24 - 125 %*	"		"	
Pyrene-d10			*73.8%*			*41 - 141 %*	"		"	
Benzo (a) pyrene-d12			*72.8%*			*38 - 143 %*	"		"	
PTH0303-13 (SE-5-1.5)		**Soil**				**Sampled: 08/09/10 12:30**				**H8**
Acenaphthene	EPA 8270m	ND	-----	13.9	ug/kg dry	1x	10H0944	08/30/10 10:00	09/01/10 20:55	
Acenaphthylene	"	ND	-----	13.9	"	"	"	"	"	
Anthracene	"	ND	-----	13.9	"	"	"	"	"	
Benzo (a) anthracene	"	ND	-----	13.9	"	"	"	"	"	
Benzo (a) pyrene	"	ND	-----	13.9	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	-----	13.9	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	13.9	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	-----	13.9	"	"	"	"	"	
Chrysene	"	ND	-----	13.9	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	-----	13.9	"	"	"	"	"	
Fluoranthene	"	ND	-----	13.9	"	"	"	"	"	
Fluorene	"	ND	-----	13.9	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	-----	13.9	"	"	"	"	"	
Naphthalene	"	ND	-----	13.9	"	"	"	"	"	
Phenanthrene	"	ND	-----	13.9	"	"	"	"	"	

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Polynuclear Aromatic Compounds per EPA 8270M-SIM

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-13 (SE-5-1.5)		**Soil**				**Sampled: 08/09/10 12:30**				**H8**
Pyrene	EPA 8270m	ND	-----	13.9	ug/kg dry	1x	10H0944	08/30/10 10:00	09/01/10 20:55	
Surrogate(s): Fluorene-d10				*68.3%*		*24 - 125 %*	"			"
Pyrene-d10				*71.1%*		*41 - 141 %*	"			"
Benzo (a) pyrene-d12				*70.3%*		*38 - 143 %*	"			"
PTH0303-16 (SE-6-1.5)		**Soil**				**Sampled: 08/09/10 14:20**				**H8**
Acenaphthene	EPA 8270m	ND	-----	14.7	ug/kg dry	1x	10H0944	08/30/10 10:00	08/31/10 04:02	
Acenaphthylene	"	ND	-----	14.7	"	"	"	"	"	
Anthracene	"	ND	-----	14.7	"	"	"	"	"	
Benzo (a) anthracene	"	ND	-----	14.7	"	"	"	"	"	
Benzo (a) pyrene	"	ND	-----	14.7	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	-----	14.7	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	14.7	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	-----	14.7	"	"	"	"	"	
Chrysene	"	ND	-----	14.7	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	-----	14.7	"	"	"	"	"	
Fluoranthene	"	ND	-----	14.7	"	"	"	"	"	
Fluorene	"	ND	-----	14.7	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	-----	14.7	"	"	"	"	"	
Naphthalene	"	ND	-----	14.7	"	"	"	"	"	
Phenanthrene	"	ND	-----	14.7	"	"	"	"	"	
Pyrene	"	ND	-----	14.7	"	"	"	"	"	
Surrogate(s): Fluorene-d10				*82.4%*		*24 - 125 %*	"			"
Pyrene-d10				*91.4%*		*41 - 141 %*	"			"
Benzo (a) pyrene-d12				*87.5%*		*38 - 143 %*	"			"

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Percent Dry Weight (Solids) per ASTM D2216-80

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTH0303-01 (SE-1-1.5)			**Soil**				**Sampled: 08/09/10 09:10**			
% Solids	ASTM D2216-80	**92.8**	-----	0.0100	% by Weight	1x	10H0438	08/13/10 12:40	08/14/10 08:30	
PTH0303-04 (SE-2-1.5)			**Soil**				**Sampled: 08/09/10 10:20**			
% Solids	ASTM D2216-80	**76.4**	-----	0.0100	% by Weight	1x	10H0438	08/13/10 12:40	08/14/10 08:30	
PTH0303-07 (SE-3-1.5)			**Soil**				**Sampled: 08/09/10 11:30**			
% Solids	ASTM D2216-80	**85.0**	-----	0.0100	% by Weight	1x	10H0438	08/13/10 12:40	08/14/10 08:30	
PTH0303-08 (SE-3-1.5 Dup)			**Soil**				**Sampled: 08/09/10 11:30**			
% Solids	ASTM D2216-80	**89.3**	-----	0.0100	% by Weight	1x	10H0438	08/13/10 12:40	08/14/10 08:30	
PTH0303-10 (SE-4-1.5)			**Soil**				**Sampled: 08/09/10 15:25**			
% Solids	ASTM D2216-80	**83.4**	-----	0.0100	% by Weight	1x	10H0438	08/13/10 12:40	08/14/10 08:30	
PTH0303-13 (SE-5-1.5)			**Soil**				**Sampled: 08/09/10 12:30**			
% Solids	ASTM D2216-80	**95.5**	-----	0.0100	% by Weight	1x	10H0420	08/12/10 19:21	08/13/10 07:13	
PTH0303-16 (SE-6-1.5)			**Soil**				**Sampled: 08/09/10 14:20**			
% Solids	ASTM D2216-80	**90.0**	-----	0.0100	% by Weight	1x	10H0420	08/12/10 19:21	08/13/10 07:13	
PTH0303-19 (SE-7-1.5)			**Soil**				**Sampled: 08/09/10 13:30**			
% Solids	ASTM D2216-80	**79.9**	-----	0.0100	% by Weight	1x	10H0420	08/12/10 19:21	08/13/10 07:13	

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3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0513 **Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0513-BLK1)								**Extracted: 08/16/10 21:55**						
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	08/17/10 10:15	
Residual Range/Heavy Oil Organics	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 104%*			*Limits: 50-150%*	"							*08/17/10 10:15*	
LCS (10H0513-BS1)								**Extracted: 08/16/10 21:55**						
Diesel Range Organics	NWTPH-Dx	133	---	12.5	mg/kg wet	1x	--	125	106%	(50-150)	--	--	08/17/10 09:55	
Residual Range/Heavy Oil Organics	"	69.7	---	25.0	"	"	--	75.0	93.0%	"	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 87.7%*			*Limits: 60-120%*	"							*08/17/10 09:55*	
Duplicate (10H0513-DUP1)					**QC Source: PTH0303-01**			**Extracted: 08/16/10 21:55**						
Diesel Range Organics	NWTPH-Dx	66.1	---	13.4	mg/kg dry	1x	41.4	--	--	--	45.9%	(40)	08/17/10 10:34	R2, Q10
Residual Range/Heavy Oil Organics	"	146	---	26.8	"	"	205	--	--	--	33.8%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 99.8%*			*Limits: 50-150%*	"							*08/17/10 10:34*	

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Darrell Auvil, Project Manager

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

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QC Batch: 10H0931 **Soil Preparation Method: EPA 3050**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0931-BLK1)									Extracted: 08/27/10 19:38					
Arsenic	EPA 6020	ND	---	0.500	mg/kg wet	1x	--	--	--	--	--	--	08/30/10 14:54	
Barium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Lead	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	---	0.500	"	"	--	--	--	--	--	--	08/29/10 18:43	
Silver	"	ND	---	0.500	"	"	--	--	--	--	--	--	08/30/10 14:54	
LCS (10H0931-BS1)									Extracted: 08/27/10 19:38					
Arsenic	EPA 6020	42.0	---	0.490	mg/kg wet	1x	--	49.0	85.8%	(80-120)	--	--	08/30/10 14:57	
Barium	"	41.2	---	0.490	"	"	--	"	84.0%	"	--	--	"	
Cadmium	"	42.7	---	0.490	"	"	--	"	87.0%	"	--	--	"	
Chromium	"	43.4	---	0.980	"	"	--	"	88.5%	"	--	--	"	
Lead	"	44.4	---	0.490	"	"	--	"	90.6%	"	--	--	"	
Selenium	"	59.1	---	0.490	"	"	--	"	120%	"	--	--	08/29/10 18:47	
Silver	"	21.6	---	0.490	"	"	--	24.5	88.1%	"	--	--	08/30/10 14:57	
Matrix Spike (10H0931-MS1)					QC Source: PTH0303-01				Extracted: 08/27/10 19:38					
Arsenic	EPA 6020	50.4	---	0.539	mg/kg dry	1x	4.81	53.9	84.6%	(75-125)	--	--	08/30/10 15:09	
Barium	"	130	---	0.539	"	"	84.2	"	84.0%	"	--	--	"	
Cadmium	"	47.9	---	0.539	"	"	0.189	"	88.4%	"	--	--	"	
Chromium	"	63.7	---	1.08	"	"	16.2	"	88.2%	"	--	--	"	
Lead	"	60.9	---	0.539	"	"	12.3	"	90.1%	"	--	--	"	
Selenium	"	56.1	---	0.539	"	"	0.199	"	104%	"	--	--	08/29/10 18:58	
Silver	"	23.7	---	0.539	"	"	0.0647	27.0	87.5%	"	--	--	08/30/10 15:09	
Matrix Spike Dup (10H0931-MSD1)					QC Source: PTH0303-01				Extracted: 08/27/10 19:38					
Arsenic	EPA 6020	51.8	---	0.534	mg/kg dry	1x	4.81	53.4	88.0%	(75-125)	2.62%	(40)	08/30/10 15:13	
Barium	"	138	---	0.534	"	"	84.2	"	101%	"	6.57%	"	"	
Cadmium	"	49.3	---	0.534	"	"	0.189	"	91.9%	"	2.89%	"	"	
Chromium	"	66.7	---	1.07	"	"	16.2	"	94.7%	"	4.60%	"	"	
Lead	"	65.0	---	0.534	"	"	12.3	"	98.7%	"	6.50%	"	"	
Selenium	"	52.8	---	0.534	"	"	0.199	"	98.5%	"	6.04%	"	08/29/10 19:02	
Silver	"	24.1	---	0.534	"	"	0.0647	26.7	90.2%	"	2.04%	"	08/30/10 15:13	

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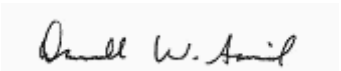

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Total Mercury per EPA Method 7471A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0915 **Soil Preparation Method: EPA 7471A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0915-BLK1)								**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	ND	---	0.0988	mg/kg wet	1x	--	--	--	--	--	--	08/27/10 16:50	
LCS (10H0915-BS1)								**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	0.616	---	0.0973	mg/kg wet	1x	--	0.608	101%	(80-120)	--	--	08/27/10 16:53	
LCS Dup (10H0915-BSD1)								**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	0.623	---	0.0985	mg/kg wet	1x	--	0.616	101%	(80-120)	1.23%	(20)	08/27/10 16:56	
Duplicate (10H0915-DUP1)					**QC Source: PTH0303-01**			**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	ND	---	0.101	mg/kg dry	1x	ND	--	--	--	26.0%	(40)	08/27/10 16:58	
Matrix Spike (10H0915-MS1)					**QC Source: PTH0303-01**			**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	0.688	---	0.107	mg/kg dry	1x	0.0196	0.669	100%	(75-125)	--	--	08/27/10 17:01	
Matrix Spike Dup (10H0915-MSD1)					**QC Source: PTH0303-01**			**Extracted: 08/27/10 12:02**						
Mercury	EPA 7471A	0.656	---	0.103	mg/kg dry	1x	0.0196	0.643	98.9%	(75-125)	4.90%	(40)	08/27/10 17:04	

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Polychlorinated Biphenyls per EPA Method 8082 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0945 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0945-BLK1)									**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	ND	---	33.2	ug/kg wet	1x	--	--	--	--	--	--	08/31/10 18:48	
Aroclor 1221	"	ND	---	66.9	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	---	33.2	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	---	33.2	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	---	33.2	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	---	33.2	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	---	33.2	"	"	--	--	--	--	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 96.7%*			*Limits: 16-149%*	"							*08/31/10 18:48*	
Blank (10H0945-BLK2)									**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	ND	---	33.3	ug/kg wet	1x	--	--	--	--	--	--	09/01/10 15:51	
Aroclor 1221	"	ND	---	67.0	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	---	33.3	"	"	--	--	--	--	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 97.8%*			*Limits: 16-149%*	"							*09/01/10 15:51*	
LCS (10H0945-BS1)									**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	325	---	32.8	ug/kg wet	1x	--	329	98.8%	(57-135)	--	--	08/31/10 19:11	
Aroclor 1260	"	328	---	32.8	"	"	--	"	99.7%	(60-135)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 98.0%*			*Limits: 16-149%*	"							*08/31/10 19:11*	
LCS (10H0945-BS2)									**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	338	---	33.3	ug/kg wet	1x	--	333	101%	(57-135)	--	--	09/01/10 16:14	
Aroclor 1260	"	355	---	33.3	"	"	--	"	107%	(60-135)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 105%*			*Limits: 16-149%*	"							*09/01/10 16:14*	
Matrix Spike (10H0945-MS1)							**QC Source: PTH0795-01**		**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	236	---	72.0	ug/kg dry	2x	ND	360	65.4%	(37-145)	--	--	08/31/10 18:48	
Aroclor 1260	"	245	---	72.0	"	"	ND	"	68.0%	(25-144)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 58.1%*			*Limits: 16-149%*	"							*08/31/10 18:48*	

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Polychlorinated Biphenyls per EPA Method 8082 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0945 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (10H0945-MS2)					**QC Source: PTH0795-01**				**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	207	---	72.2	ug/kg dry	2x	ND	361	57.3%	(37-145)	--	--	09/01/10 15:51	
Aroclor 1260	"	218	---	72.2	"	"	ND	"	60.4%	(25-144)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 58.5%*			*Limits: 16-149%*	"							*09/01/10 15:51*	
Matrix Spike Dup (10H0945-MSD1)					**QC Source: PTH0795-01**				**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	300	---	71.9	ug/kg dry	2x	ND	360	83.4%	(37-145)	24.1%	(26)	08/31/10 19:11	
Aroclor 1260	"	307	---	71.9	"	"	ND	"	85.4%	(25-144)	22.6%	(30)	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 70.8%*			*Limits: 16-149%*	"							*08/31/10 19:11*	
Matrix Spike Dup (10H0945-MSD2)					**QC Source: PTH0795-01**				**Extracted: 08/30/10 09:30**					
Aroclor 1016	EPA 8082	299	---	72.2	ug/kg dry	2x	ND	361	82.8%	(37-145)	36.5%	(26)	09/01/10 16:14	R2
Aroclor 1260	"	319	---	72.2	"	"	ND	"	88.4%	(25-144)	37.6%	(30)	"	R2
Surrogate(s): Decachlorobiphenyl		*Recovery: 73.5%*			*Limits: 16-149%*	"							*09/01/10 16:14*	

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0944 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0944-BLK1)									**Extracted: 08/30/10 10:00**					
Acenaphthene	EPA 8270m	ND	---	13.2	ug/kg wet	1x	--	--	--	--	--	--	08/30/10 23:28	
Acenaphthylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 81.1%*			*Limits: 24-125%*	"							*08/30/10 23:28*	
Pyrene-d10		*88.9%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*88.6%*			*38-143%*	"							"	
LCS (10H0944-BS1)									**Extracted: 08/30/10 10:00**					
Acenaphthene	EPA 8270m	146	---	13.4	ug/kg wet	1x	--	166	87.9%	(33-139)	--	--	08/30/10 23:58	
Benzo (a) pyrene	"	159	---	13.4	"	"	--	"	95.8%	(45-149)	--	--	"	
Pyrene	"	155	---	13.4	"	"	--	"	93.5%	(39-138)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 87.7%*			*Limits: 24-125%*	"							*08/30/10 23:58*	
Pyrene-d10		*92.5%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*93.5%*			*38-143%*	"							"	
Matrix Spike (10H0944-MS1)					**QC Source: PTH0706-03**				**Extracted: 08/30/10 10:00**					
Acenaphthene	EPA 8270m	206	---	167	ug/kg dry	10x	27.7	208	85.9%	(33-139)	--	--	08/31/10 00:28	
Benzo (a) pyrene	"	194	---	167	"	"	4.97	"	91.1%	(45-149)	--	--	"	
Pyrene	"	220	---	167	"	"	36.6	"	88.5%	(39-138)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 82.7%*			*Limits: 24-125%*	"							*08/31/10 00:28*	
Pyrene-d10		*88.6%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*85.2%*			*38-143%*	"							"	

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3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0944 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10H0944-MSD1)					**QC Source: PTH0706-03**				**Extracted: 08/30/10 10:00**					
Acenaphthene	EPA 8270m	213	---	168	ug/kg dry	10x	27.7	209	88.6%	(33-139)	3.28%	(40)	08/31/10 00:58	
Benzo (a) pyrene	"	188	---	168	"	"	4.97	"	87.5%	(45-149)	3.31%	"	"	
Pyrene	"	225	---	168	"	"	36.6	"	90.3%	(39-138)	2.19%	"	"	
Surrogate(s):	*Fluorene-d10*	*Recovery:*	*87.0%*		*Limits:*	*24-125%*	*"*						*08/31/10 00:58*	
	Pyrene-d10		*86.4%*			*41-141%*	*"*						*"*	
	Benzo (a) pyrene-d12		*81.6%*			*38-143%*	*"*						*"*	

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Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Percent Dry Weight (Solids) per ASTM D2216-80 - Laboratory Quality Control Results

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QC Batch: 10H0420 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0420-DUP1)					**QC Source: PTH0303-13**				**Extracted: 08/12/10 19:21**					
% Solids	ASTM D2216-80	93.3	---	0.0100	% by Weight	1x	95.5	--	--	--	2.26%	(20)	08/13/10 07:13	

QC Batch: 10H0438 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0438-DUP1)					**QC Source: PTH0266-02**				**Extracted: 08/13/10 12:40**					
% Solids	ASTM D2216-80	90.8	---	0.0100	% by Weight	1x	91.1	--	--	--	0.260%	(20)	08/14/10 08:30	
Duplicate (10H0438-DUP2)					**QC Source: PTH0266-01**				**Extracted: 08/13/10 12:40**					
% Solids	ASTM D2216-80	93.3	---	0.0100	% by Weight	1x	92.8	--	--	--	0.599%	(20)	08/14/10 08:30	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Ash Creek Associates, Inc.	Project Name:	**Ridgefield Overpass**	
3015 SW First Avenue	Project Number:	1161-01	Report Created:
Portland, OR 97201	Project Manager:	Chris Sheridan	09/08/10 16:13

Notes and Definitions

Report Specific Notes:

H1	-	Sample analysis performed past the method-specified holding time per client's approval.
H8	-	The sample was extracted past the holding time.
N1	-	See case narrative.
Q10	-	Hydrocarbon pattern most closely resembles a blend of creostoe or similar product as well as oil.
Q6	-	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
R2	-	The RPD exceeded the acceptance limit.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

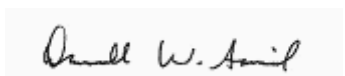
Darrell Auvil, Project Manager

CERTIFICATION SUMMARY

TestAmerica Portland

Method	Matrix	Washington
ASTM D2216-80	Soil	
EPA 6020	Soil	X
EPA 7471A	Soil	X
EPA 8082	Soil	X
EPA 8270m	Soil	X
NWTPH-Dx	Soil	X

TestAmerica Portland



Darrell Auvil, Project Manager

CHAIN OF CUSTODY RECORD

PTH0303

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: Chris Sheridan
Project Name: Ridgefield Overpass
Project Number: 1161-01
Sampler Name: S. Gray

Analytical Lab: Test America
Report To: Chris Sheridan
Page: 1 of 3

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass(Yellow Label)	None (Black Label)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: NWTPHDx w/ Si Gel Clean Up	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
SE-1-1.5	8/9/10	0910	5	X			X											X		X	X	X		
SE-1-5	"	0920	6	X			X											X		H	X	X		
SE-1-19'	"	0940	1	X			X											X		H	X	X		
SE-2-1.5	"	1020	6	X			X											X		X	X	X		
SE-2-4.5	"	1030	6	X			X											X		H	X	X		
SE-2-17	"	1055	1	X			X											X		H	X	X		
SE-3-1.5	"	1130	5	X			X											X		X	X	X		
SE-3-1.5 DUP	"	1130	5	X			X											X		X	X	X		
SE-3-4.5	"	1140	6	X			X											X		H	X	X		
SE-4-1.5	↓	1525	5	X			X											X		X	X	X		

Special Instructions: H = Hold

~~48hr TAT~~

Method of Shipment:

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Sam Gray / Ash Creek	8/10/10	1200		8/10/10	14:15
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
	8/10/10	14:36		8/10/10	1436
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y N

5.9
5.2
5.7

CHAIN OF CUSTODY RECORD

PTH0303

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Client Name: Ash Creek Associates
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: Chris Sheridan
Project Name: Ridgefield Overpass
Project Number: 1161-01
Sampler Name: S. Gray

Analytical Lab: Test America
Report To: Chris Sheridan
Page: 2 of 3

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red Label)	Preservative: HCl (Blue Label)	Preservative: NaOH (Orange Label)	Preservative: H_2SO_4 Plastic (Yellow Label)	Preservative: H_2SO_4 Glass(Yellow Label)	Preservative: None (Black Label)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: NWTPHDx w/Si Gel Cleanup	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
SE-4-5.5	8/9/10	1535	6	X			X											X		H	X	X		
SE-4-18	"	1540	1	X			X											X		H	X	X		
SE-5-1.5	"	1230	6	X			X											X		X	X	X		
SE-5-4.5	"	1240	6	X			X											X		H	X	X		
SE-5-14	"	1245	1	X			X											X		H	X	X		
SE-6-1.5	"	1420	6	X			X											X		X	X	X		
SE-6-4.5	"	1430	6	X			X											X		H	X	X		
SE-6-19	"	1440	1	X			X											X		H	X	X		
SE-7-1.5	"	1330	6	X			X											X		X	X	X		
SE-7-4.5	✓	1340	6	X			X											X		H	X	X		

Special Instructions: ~~48hr TAT~~ H = Hold

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N

Method of Shipment:

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Sam Gray / Ash Creek	8/10/10	1200		8/10/10	14:15
	8/10/10	1436			
				8/10/10	1436

CHAIN OF CUSTODY RECORD

PTH0303

Ash Creek Associates, Inc.
Environmental and Geotechnical Consultants

Client Name: Ash Creek Associates
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Page: 3 of 3

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red Label)	Preservative: HCl (Blue Label)	Preservative: NaOH (Orange Label)	Preservative: H_2SO_4 Plastic (Yellow Label)	Preservative: H_2SO_4 Glass(Yellow Label)	Preservative: None (Black Label)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: NWTPHDx w/SG	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
SE-7-13	8/9/10	1350	1	X			X											X		H		X	X	

Special Instructions: ~~48hr TAT~~ / H = Hold [redacted]

Method of Shipment:

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Sam Gray / Ash Creek	8/10/10	1200	[signature]	8/10/10	14:15
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
[signature]	8/10/10	14:36	[signature]	8/10/10	1436
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time

Laboratory Comments:

Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTH0303 Date/Time Received: 8-10-10 1436

Client Name and Project: ASH CREEK

Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☑PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1 1 1 ____ ____

Temperatures: 5.9 5.2 5.7 ____ ____

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice
__Ice Melted
__W/in 4 Hrs of collection
__Other:____

RAYTECH

Initials: [illegible]

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☑	☐	3. Chain of Custody present? If no, document on NOD.
	☑	☐	4. Bottles received intact? If no, document on NOD.
	☑	☐	5. Sample is not multiphasic? If no, document on NOD.
	☑	☐	6. Proper Container and preservatives used? If no, document on NOD.
☑	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☑	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☑	☐	☐	9. HF Dilution required?
	☑	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☑	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☑	☐	12. Is the "Sampled by" section of the COC completed?
☑	☐	☐	13. Were VOA/Oil Syringe samples without headspace?
☑	☐	☐	14. Were VOA vials preserved? ☐HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☑	15. Did samples require preservation with sodium thiosulfate?
☑	☐	☐	16. If yes to #15, was the residual chlorine test negative? If no, document on NOD.
☑	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☑	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☑	☐	☐	19. Are analyses with short holding times received in hold?
	☑	☐	20. Was Standard Turn Around (TAT) requested?
	☑	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTH0303

Login Checks:

Initials: JM

N/A	Yes	No	
	☑	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☑	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☑	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☐	☑	☐	25. Were special log in instructions read and followed?
	☑	☐	26. Were tests logged checked against the COC?
☑	☐	☐	27. Were rush notices printed and delivered?
☑	☐	☐	28. Were short hold notices printed and delivered?
☑	☐	☐	29. Were subcontract COCs printed?
☑	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: JM

N/A	Yes	No	
☑	☐	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☑	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☑	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☑	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☑	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☑	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).