



December 27, 2006
10077.015

Oregon Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201

VIA Email/First Class

Attn: Anna Coates

Subject: Contaminated Media Management Plan – Response to DEQ Comments
Former Mobil/Niemi Oil Bulk Plant IRAM
Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon
DEQ ECSI File #2277

Dear Ms. Coates:

EnviroLogic Resources, Inc., has received a letter from Oregon Department of Environmental Quality (DEQ) dated September 14, 2006, regarding redevelopment activities at the former Mobil/Niemi Oil bulk plant and the adjacent Port of Astoria property to the east-northeast. Both of these properties are within the boundaries of the Regional Study Area for the Astoria Area-Wide Petroleum Site, as shown on Figure 1 and Figure 2. The DEQ letter provides comments and requests submittal of additional information related to the Contaminated Media Management Plan (CMMP), prepared by *EnviroLogic Resources* and dated August 24, 2006. The DEQ requested written responses to items 3 and 5 in its letter. Based upon a review of the DEQ letter, we provide the following response:

DEQ Comment #5

Site activities covered by the CMMP were apparently initiated prior to final DEQ approval of the document. Reporting and DEQ notification requirements specified in the CMMP are retroactive and need to be met. This would include information on material that has been excavated and sampled and/or has been staged for disposal (or disposed), and should include daily logs or other field documentation (e.g., photos). The contractor's health and safety plan needs to be submitted for inclusion into the CMMP. The contractor representative responsible for directing soil characterization and implementing health and safety protocols needs to be identified. EnviroLogic agreed to



provide an update on these activities. The update should include photographs, disposal receipts, and other pertinent information such as areas where the materials was removed.

Response to DEQ Comment #5 – Summary of Work Completed

On May 11, 2006, a site visit was conducted by *EnviroLogic Resources* for the purpose of assessing the scope of redevelopment work that developer, Riverlands LLC, informed us was occurring at and adjacent to the former Mobil/Niemi Oil bulk plant. During the site visit, *EnviroLogic Resources* observed and verified that between approximately 140-180 cubic yards of petroleum-contaminated soil (PCS) had recently been generated and stockpiled by construction workers performing site redevelopment preparation activities.

The PCS stockpile was covered in 6-mil plastic sheeting, and is shown on Photograph 1 and Photograph 2 in Appendix A. Where evident, soils appeared to have only been disturbed within the upper three feet of the subsurface at locations approximately where residual petroleum hydrocarbon-related compounds were identified during the course of previous site investigations.

The developer and construction workers could not attest to having the appropriate level of HAZWOPER training necessary to continue working in and/or around a hazardous waste site when asked. Therefore, our field staff requested that such further work at the site be suspended in areas of potential petroleum-related contamination until such time that a site-specific CMMP is prepared and approved by DEQ, and that appropriately trained HAZWOPER personnel are arranged to perform the necessary work in the areas of concern specified in the CMMP. The developer suspended construction work at that time.

On June 5, 2006, a site visit was conducted by *EnviroLogic Resources* in order to obtain representative waste characterization samples of stockpiled PCS and to verify the previous PCS soil stockpile volume estimate. Given the volume of the stockpile, and consistent with Section 3.3.2 of the CMMP dated August 24, 2006, four soil samples, PC North, PC East, PC South, and PC West, were collected from separate pits hand-dug into the soil stockpile for waste characterization purposes. The general location of the PCS stockpile and the associated sampling locations are shown on Figure 3. The structures historically located at the former Mobil/Niemi Oil bulk plant had all been demolished by the developer prior to this site visit, but some structures are shown on Figure 3 for reference. The laboratory analytical results obtained for the samples, and contained in Appendix B, verified that the temporarily stockpiled soil generated by the construction workers contained petroleum compounds and constitutes PCS.

On June 7, 2006, a draft CMMP was submitted to DEQ, and on June 16, 2006, an extension request letter was submitted to DEQ in order to continue temporary stockpiling of PCS at the former Mobil/Niemi Oil bulk plant until necessary client authorizations had been received. On July 17, 2006, DEQ issued a letter generally approving of the activities proposed in the CMMP



under the condition that specified comments are addressed during implementation of the activities covered by the CMMP, and that a revised CMMP be submitted for DEQ review according to the development schedule. In a separate letter dated July 17, 2006, DEQ also granted an extension to the timeframe for on-site PCS storage provided that stockpiled PCS is managed appropriately. A revised CMMP was submitted to DEQ on August 24, 2006, incorporating responses to DEQ comments.

On September 6-8, 2006, site construction preparation work in the areas of concern specified in the CMMP was reinitiated using Cowlitz Clean Sweep-PNE Corporation (CCS-PNE) of Longview, Washington, and their appropriately trained HAZWOPER personnel. This work was observed by *EnviroLogic Resources* and included removal of stockpiled PCS and three historical concrete features from areas where petroleum-related compounds were likely to be encountered. The areas disturbed by CCS-PNE are presented on Figure 3.

Photograph 3 through Photograph 6 show the removal of the eastern concrete structural footing presumed to be that of a former aboveground storage tank (AST). Photograph 7 through Photograph 10 show the removal of a smaller circular concrete feature. Photograph 11 through Photograph 14 show the removal of the western concrete structural AST footing. Both of the concrete AST footings appeared to have been constructed without an interior concrete base and were lined with an asphaltic-based sealant.

The broken-up concrete pieces were separately stockpiled for future recycling and reuse (for processing into gravelly base material via a rock crusher; Photograph 1). An additional 40-50 cubic yards of PCS was incidentally generated during removal of the three concrete features and temporarily stockpiled for disposal along with the larger PCS stockpile. Most of the additional PCS was excavated from the upper four feet of subsurface within the eastern large concrete AST footing. A total of 210 cubic yards of PCS was temporarily stockpiled between the May and September 2006 excavation events, and transported from the site for disposal at Hillsboro Landfill. Appendix C contains a copy of Hillsboro Landfill Disposal Permit #9862 received from Waste Management for the PCS and copies of CCS-PNE's associated shipping papers/bills of lading.

Photograph 15 and Photograph 16 reflect the nature of observed obviously-contaminated soils removed from the areas of the smaller concrete feature and the eastern AST footing, respectively. Photograph 17 and Photograph 18 show the temporary stockpiling of the additional 40-50 cubic yards of PCS. Photograph 19 through Photograph 22 show the removal of ancillary piping encountered during removal of the smaller concrete feature. The approximate location and orientation of this piping is shown on Figure 3.

Approximately 20-30 cubic yards of disturbed soil classified as non-contaminated per the CMMP was set aside for reuse as "cleaner" backfill in the disturbed areas after PCS and concrete



removal activities. Soil samples SS-3 and SS-5 were then obtained from the cleaner stockpiles for screening purposes. SS-2 was intended to be collected from a clean stockpile, but staff was directed to a PCS location. Thus the contents of sample SS-2 was returned to the PCS stockpile once it was realized that SS-2 was inadvertently collected from PCS and not the cleaner fill material slated for reuse. Photograph 23 through Photograph 26 show the disturbed areas subsequent to backfilling and the completion of PCS and concrete removal.

The lab results for soil samples SS-3 and SS-5 collected from the clean stockpiles generally reflect much lower concentrations of pertinent petroleum compounds, if any, in comparison to collected PCS stockpile samples PC North, PC East, PC South, and PC West, and *in situ* soil samples SS-1 and SS-4. In addition, the 20-30 cubic yards of stockpiled clean soils associated with samples SS-3 and SS-5 were returned to the area from which they were disturbed after removal of the additional 40-50 cubic yards of obviously-contaminated soil which generally reduces overall residual contaminant mass. The concentrations detected in samples SS-3 and SS-5 meet the generic petroleum DEQ risk-based concentrations (RBCs) considered applicable to the exposure pathways at the former Mobil Oil/Niemi Oil bulk plant, except for a minor exceedence for indeno(1,2,3-cd)pyrene in sample SS-3 at 25.3 mg/kg for the construction worker soil ingestion, dermal contact, and inhalation scenario (RBC_{ss}).

Potentially complete exposure pathways for the Astoria Area-Wide Petroleum Site have been evaluated within a Human Health Risk Assessment as part of the ongoing RI/FS process (Maul Foster & Alongi, Inc., 2006). Those exposure pathways considered applicable to occupational, construction, and excavation workers at the former Mobil Oil/Niemi Oil bulk plant include: soil ingestion, dermal contact, and inhalation (RBC_{ss}); soil and ground water volatilization to outdoor air (RBC_{so} and RBC_{wo}); soil and ground water vapor intrusion into buildings (RBC_{si} and RBC_{wi}); and, ground water in excavation (RBC_{we}). The potential for exposure to indeno(1,2,3-cd)pyrene-affected soil was remedied by ensuring that the CMMP and site-specific Health & Safety Plan (HASP) was properly implemented, including ensuring that subsurface workers in the affected areas were equipped with appropriate personal protective equipment as needed given atmospheric and/or other site conditions.

Soil samples were also obtained for additional site characterization purposes from native soils at a depth of approximately 6.5 feet for SS-1, and 4 feet for SS-4, beneath what had been the overlying eastern large AST footing and smaller concrete structure. The laboratory analytical results for both SS-1 and SS-4 show concentrations of gasoline- and diesel-range petroleum hydrocarbons, volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs). Heavy oil-range petroleum hydrocarbons were also detected in sample SS-1.

Gasoline-range hydrocarbons were detected at 1,120 milligrams per kilogram (mg/kg) in SS-1 and 1,240 mg/kg in SS-4. Diesel-range hydrocarbons were detected in SS-1 and SS-4 at 6,920 mg/kg and 3,480 mg/kg, respectively. Heavy oil-range hydrocarbons were detected in SS-1 at



381 mg/kg and were not detected in sample SS-4. RBDM VOCs detected in both SS-1 and SS-4 include ethylbenzene, xylene(s), naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, isopropylbenzene, and n-propylbenzene. RBDM PAHs detected in both SS-1 and SS-4 include acenaphthene, anthracene, fluorene, phenanthrene, and pyrene; whereas, fluoranthene and naphthalene were only detected in sample SS-1. These results will be incorporated into the ongoing RI/FS process for the Astoria Area-Wide Petroleum Site. Generic petroleum DEQ RBCs were not exceeded in soil samples SS-1 and SS-4 for any of the detected compounds, including petroleum hydrocarbons, VOCs, and PAHs, given the site-specific potentially complete exposure pathways. Copies of the laboratory analytical results for the soil samples collected on September 6, 2006, are contained in Appendix B.

All work completed by CCS-PNE from September 6-8, 2006, was conducted according to the provisions of the CMMP dated August 24, 2006, which includes implementing a site-specific HASP and maintenance of the site controls specified in Section 3.2, 3.3 and 4.0 of the CMMP. The areas disturbed by CCS-PNE are presented on Figure 3. CCS-PNE's site-specific HASP and copies of the pertinent HASP signature pages for both *EnviroLogic Resources* and CCS-PNE are included in Appendix D.

On September 14, 2006, DEQ issued a letter requesting an update on status of the field activities that are subject to the CMMP. The letter also requested the submittal of additional information so that the site-specific CMMP could be used as a framework for other properties in the Astoria Area-Wide project area where similar contaminated media may be encountered. This correspondence is intended to fulfill DEQ requests to date regarding the CMMP and associated activities.

DEQ Comment #3

Although waste profiling is specified in the CMMP, it is not clear that sufficient testing to conduct an appropriate RCRA waste determination will be conducted. The CMMP states that the receiving facility "typically" determines the analytical requirements. It is not clear if the receiving facility requirements are sufficient to complete an adequate RCRA waste determination. It is incumbent upon the Port to ensure that appropriate waste characterization sampling is conducted, which may include determining flashpoint to assess ignitability, and toxicity characteristic leaching procedure (TCLP) analysis (e.g., for benzene, lead) to determine if it is toxicity characteristic waste. Unless bulk soil concentrations are greater than 20 times the TCLP toxicity characteristic waste criteria it is not necessary to conduct TCLP testing. It was agreed at today's meeting that soil exhibiting qualities of obviously contaminated soil as described in the CMMP will undergo appropriate hazardous waste determination testing. Please indicate the proposed analytical testing and sampling frequency.



Response to DEQ Comment #3 – Waste Characterization

Title 40 Code of Federal Regulations (40 CFR) Section § 261.4(a)(14)(b)(10) indicates that petroleum-contaminated media and debris that fail the Toxicity Characteristic Leachate Procedure (TCLP) test for the Toxicity Characteristic of § 261.24 (Hazardous Waste Codes D018 through D043 only), and are subject to corrective action regulations under part § 280 (i.e. for underground storage tank corrective actions), are specifically excluded from the definition of hazardous waste. However, media or debris that “contain” hazardous waste can become subject to regulation under Resource Conservation and Recovery Act (RCRA) requirements.

U.S. Environmental Protection Agency (EPA) policy is that *the contaminated media or debris must be managed as if they were hazardous waste unless and until they no longer contain hazardous waste*. This “contained-in” policy is that contaminated media or debris is considered to contain hazardous waste when: (1) the media or debris exhibit one of the characteristics of hazardous waste (e.g. toxicity); or, (2) when constituents from listed hazardous waste are present at concentrations greater than health-based levels calculated using a reasonable maximum exposure scenario (EPA, 1998). DEQ risk-based levels are acceptable for comparison toward the latter. Contaminated media and debris that do not contain hazardous waste (i.e. concentrations less than risk-based cleanup levels) are not subject to RCRA Subtitle C hazardous waste requirements (EPA, 1998).

As previously approved by DEQ, site-specific cleanup levels for petroleum-related compounds at the Astoria Area-Wide Petroleum Site are to be established during the RI/FS process. The process for establishing cleanup levels is set forth in the DEQ guidance document Risk-Based Decision Making [RBDM] for the Remediation of Petroleum-Contaminated Sites (DEQ, 2003). By replacing the DEQ RBDM spreadsheet values with quantifiable site-specific values, the site-specific cleanup levels for the individual petroleum constituents can be recalculated, including for indeno(1,2,3-cd)pyrene. These substitutions presumably would additionally increase the recalculated risk-based cleanup level for indeno(1,2,3-cd)pyrene.

Given that the laboratory analytical results for excavated soils meet DEQ generic RBCs, except for indeno(1,2,3-cd)pyrene as previously discussed, and that TCLP criteria for indeno(1,2,3-cd)pyrene does not exist, the cleaner soils generated during redevelopment work at the subject site to date is appropriate for reuse as backfill. Therefore, landfill disposal restrictions are not triggered since the TCLP criteria are met, and RBCs for the applicable pathways are generally not exceeded. This approach necessitates DEQ review and final approval of the CMMP.

The only pertinent D-listed petroleum compounds of concern, benzene and 1,2-dichloroethane, were not detected in the samples collected from the PCS stockpile on June 5, 2006, for waste characterization analyses. Benzene and 1,2-dichloroethane also were not detected in samples SS-1 and SS-4 collected on September 8, 2006, from those obviously-contaminated *in-situ* soils that



were not disturbed immediately beneath where incidental PCS was excavated during removal of overlying concrete footings. Therefore, since bulk soil concentrations are not greater than 20 times the TCLP criteria for either benzene or 1,2-dichloroethane, existing waste characterization analytical results are presumed adequate for waste characterization purposes.

Lead analyses were performed on 11 subsurface soil samples that were collected from 10 soil borings, SB-019(A), SB-615(N), SB-618(N), SB-620(N), SB-623(N), SB-624(N), SB-626(N), SB-627(N), SB-629(N), and SB-632(N), in this area of the former Mobil/Niemi Oil bulk plant during the course of previous site investigations. The associated laboratory analytical results indicate that concentrations of lead varied from 2.49 mg/kg to 31.4 mg/kg at depths between two and seven feet below grade (*EnviroLogic Resources*, 2002, and 2004). The average lead concentrations for surface soils from approximately 2 to 2.5 feet below grade is 17.01 mg/kg, and the average lead concentration for subsurface soils at approximately 7 to 7.5 feet below grade is 7.65 mg/kg, accordingly. Therefore, since bulk soil concentrations are less than 20 times the TCLP criteria for lead, existing analytical data was presumed adequate for waste characterization purposes and further testing was not performed for lead.

A review of the analytical results for the waste characterization samples collected from the PCS stockpile on June 5, 2006, indicate that DEQ generic RBCs were not exceeded for the occupational, construction worker, and excavation worker receptor scenarios being considered for the potential exposure pathways at the site (i.e. soil ingestion, dermal contact, and inhalation; volatilization to outdoor air; and, vapor intrusion into buildings), except for a minor exceedence for indeno(1,2,3-cd)pyrene as previously mentioned.

PCS was the only potentially contaminated media encountered to date during redevelopment work at the site. PCS is not a liquid, nor is PCS a solid that is capable under standard temperature and pressure of causing fire through friction, absorption of moisture or spontaneous chemical changes and, if ignitable, burns so vigorously and persistently that it creates a hazard. PCS by definition does not exhibit the characteristic of ignitability and further testing for flashpoint is not required for ignitability per 40 CFR § 261.21. Therefore, flashpoint analyses were not requested for the PCS transported from the site. Should such liquids or solids be encountered during future work at the site, flashpoint analyses will be requested as appropriate.

Future waste characterization samples will be collected for analyses depending on the nature of the materials encountered at the former Mobil/Niemi Oil bulk plant. If subject of the existing CMMP, an appropriate number of samples will be collected per Section 3.3.2 of the CMMP and analyzed for comparison with the associated waste characteristic.

As a general guideline, and unless otherwise requested by DEQ or the receiving facility, a minimum of one sample is required for PCS stockpiles smaller than 100 cubic yards. For stockpiles between 101 to 500 cubic yards, a minimum of three samples should be collected.

Ms. Anna Coates
December 27, 2006
Page 8

The sampling frequency will be the same regardless of the initial classification of soil. Samples will be collected from the soil that is furthest from the surface of the stockpile, or that is otherwise most likely to contain the highest concentrations of remaining contaminants, if any. After receiving laboratory analytical results, *EnviroLogic Resources* and the contractor will evaluate whether any further special handling is required and what end uses may be appropriate for the soil.

During the course of redevelopment of properties that are within the Astoria Area-Wide Petroleum Site, PCS will be managed in accordance with "contained-in" policy. It is good policy and best management practice to handle petroleum-contaminated media and debris according to the associated risks to human health and the environment.

CLOSING COMMENTS

Please call us at (503) 768-5121 if you have any questions or comments regarding this correspondence.

Sincerely,
EnviroLogic Resources, Inc.



Jason C. Howard
Project Hydrogeologist



Thomas J. Calabrese, RG, CWRE
Principal/Hydrogeologist
Project Manager

cc: distribution list attached

FIGURES

Figure 1 Site Location
Figure 2 Site Plan
Figure 3 Soil Stockpile Sampling Locations



APPENDICES

- Appendix A Site Visit Photographs
- Appendix B Pertinent Laboratory Analytical Results for Soil
- Appendix C Disposal Permit / Shipping Papers
- Appendix D Contractor's Health & Safety Plan / Safety Meeting Signature Pages

REFERENCES

- EnviroLogic Resources, Inc.*, January 30, 2002, Technical Memorandum, Phase I Source/Soil Characterization, Remedial Investigation/Feasibility Study, Astoria Area-Wide Petroleum Site, Astoria, Oregon.
 - EnviroLogic Resources, Inc.*, November 1, 2004, Technical Memorandum, Phase 2 Soil Characterization, Remedial Investigation/Feasibility Study, Astoria Area-Wide Petroleum Site, Astoria, Oregon.
 - EnviroLogic Resources, Inc.*, August 24, 2006, Contaminated Media Management Plan, Port of Astoria Redevelopment, Former Mobil/Niemi Oil Bulk Plant, Astoria Area-Wide Petroleum Site, Astoria, Oregon.
 - Maul Foster & Alongi, Inc., July 20, 2006, Human Health Risk Assessment, Astoria Area-Wide Petroleum Site, Astoria, Oregon, DEQ ECSI No. 2277.
-

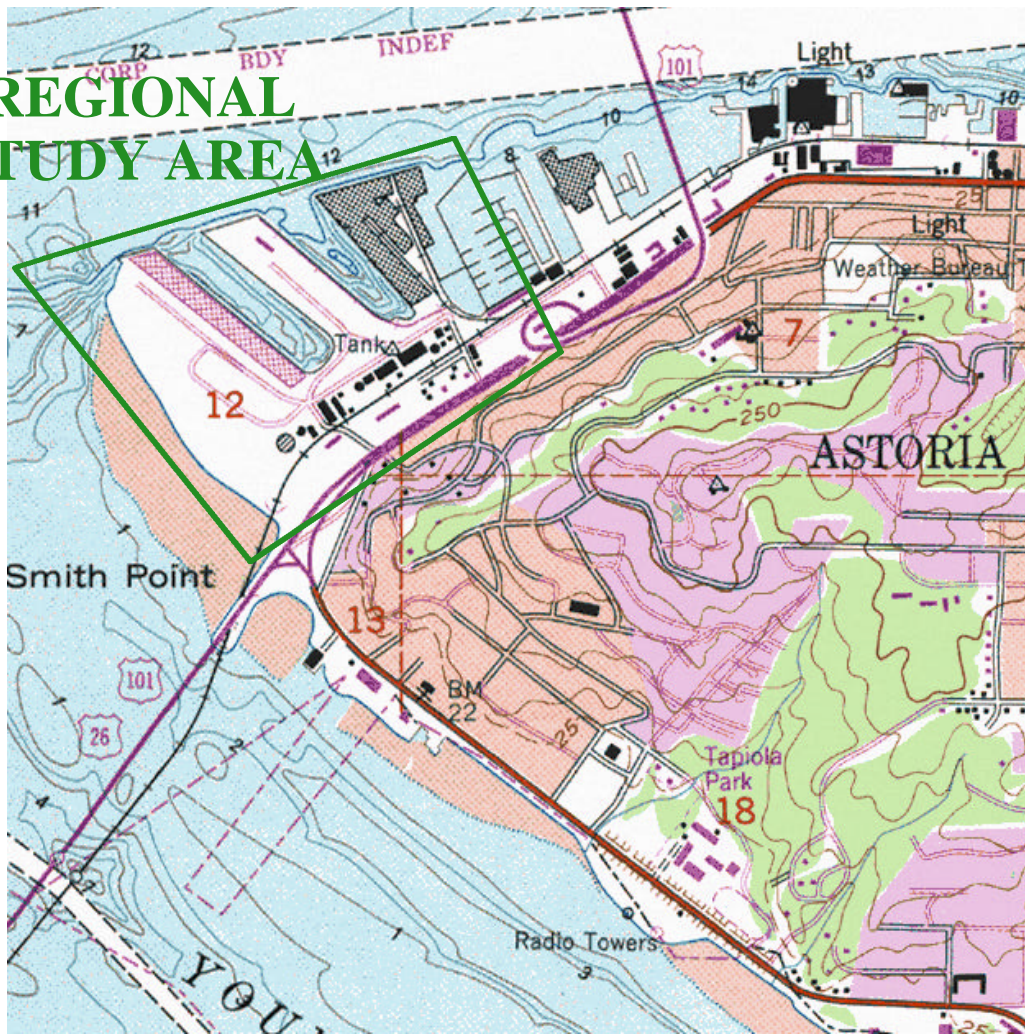


**ASTORIA AREA-WIDE PETROLEUM SITE
Distribution List**

- 1 Anna Coates, DEQ Project Manager, Site Response
 - 1 Peter Gearin, Port of Astoria
 - 1 Tom Calabrese, *EnviroLogic Resources, Inc.*, Consultant for AAW PRP Group
 - 1 Max Miller, Tonkon Torp, Attorney for McCall Oil and Chemical Corporation
 - 1 Ted McCall, McCall Oil and Chemical Corporation
 - 1 John Edwards, Anchor Environmental, LLC, Consultant for McCall Oil and Chemical Corp
 - 1 Cary E. Bechtolt, Niemi Oil Company
 - 1 Jeff B. Kray, Marten Law Group, PLLC, Attorney for Niemi Oil Company
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 - 1 David Bledsoe, Perkins Coie LLP, Attorney for Qwest Communications International, Inc.
 - 1 Anita W. Lovely, Lovely Consulting, Inc., Consultant for ExxonMobil Corporation
 - 1 Information Repository
-

FIGURES

REGIONAL STUDY AREA



(from USGS, Astoria [1984], OR 7.5' Quadrangles)

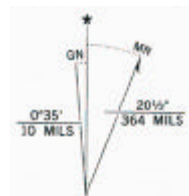
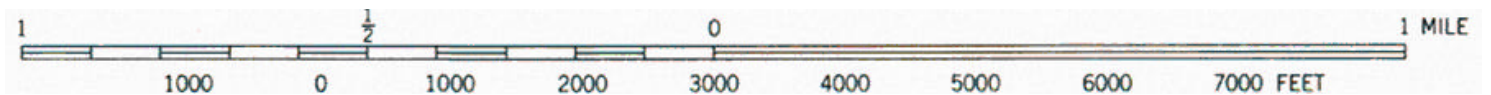
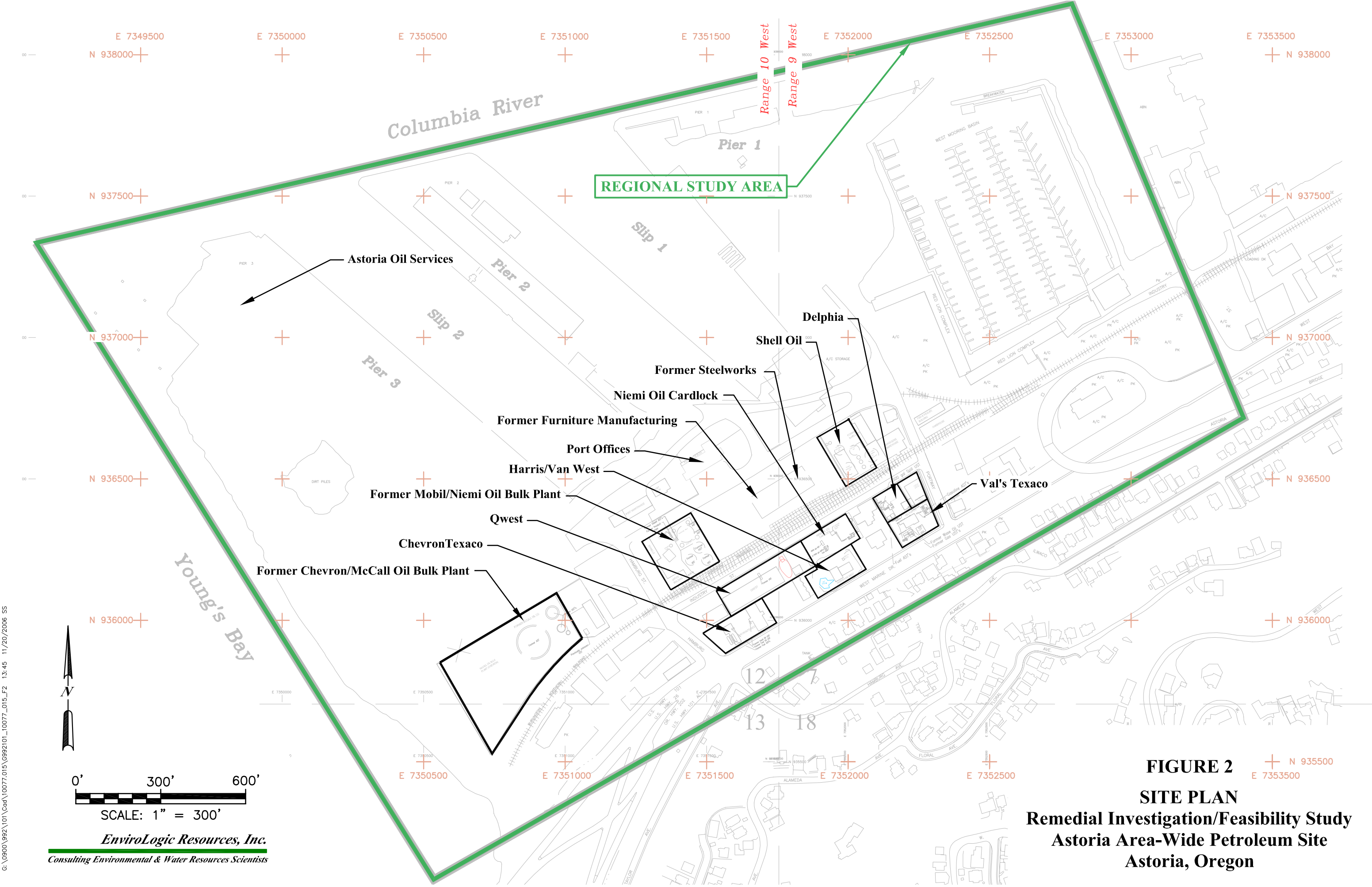


FIGURE 1

SITE LOCATION

Remedial Investigation/Feasibility Study Astoria Area-Wide Petroleum Site Astoria, Oregon



REGIONAL STUDY AREA

Columbia River

Young's Bay



EnviroLogic Resources, Inc.
 Consulting Environmental & Water Resources Scientists

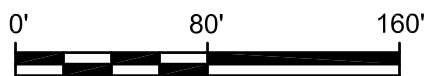
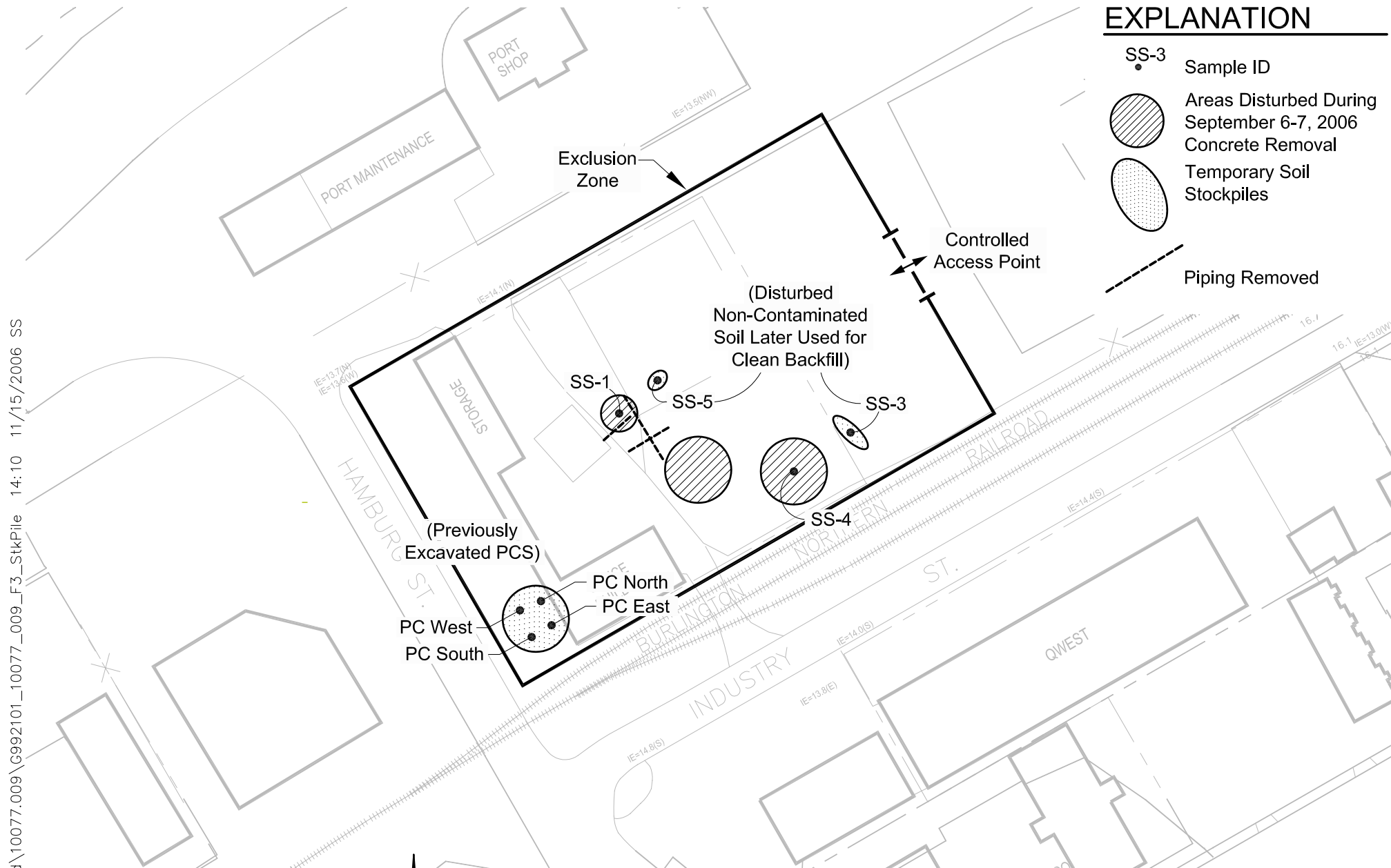
FIGURE 2
SITE PLAN
 Remedial Investigation/Feasibility Study
 Astoria Area-Wide Petroleum Site
 Astoria, Oregon

G:\0900\992\101\Cad\10077.015\G992101_10077_015_F2 13.45 11/20/2006 SS

G:\0900\992\101\Cad\10077.009\G992101_10077_009_F3_StkPile 14:10 11/15/2006 SS

EXPLANATION

- SS-3 Sample ID
- Areas Disturbed During September 6-7, 2006 Concrete Removal
- Temporary Soil Stockpiles
- Piping Removed



SCALE: 1" = 80'



EnviroLogic Resources, Inc.
 Consulting Environmental & Water Resources Scientists

FIGURE 3
SOIL STOCKPILE SAMPLING LOCATIONS
 Remedial Investigation/Feasibility Study
 Astoria Area-Wide Petroleum Site
 Astoria, Oregon

APPENDICES

APPENDIX A

SITE VISIT PHOTOGRAPHS



PHOTOGRAPHS 1 & 2

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**

EnviroLogic Resources, Inc.
Consulting Environmental & Water Resources Scientists



PHOTOGRAPHS 3 & 4

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 5 & 6

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 7 & 8

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 9 & 10

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 11 & 12

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 13 & 14

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 15 & 16

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**

EnviroLogic Resources, Inc.
Consulting Environmental & Water Resources Scientists



PHOTOGRAPHS 17 & 18

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 19 & 20

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 21 & 22



PHOTOGRAPHS 23 & 24

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**



PHOTOGRAPHS 25 & 26

**Remedial Investigation/Feasibility Study
Astoria Area-Wide Petroleum Site
Astoria, Oregon**

APPENDIX B

PERTINENT LABORATORY ANALYTICAL RESULTS FOR SOIL

July 06, 2006

Jason Howard
EnviroLogic Resources, Inc.
P.O. Box 80762
Portland, OR 97280-0762

RE: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant

Enclosed are the results of analyses for samples received by the laboratory on 06/05/06 15:35.
The following list is a summary of the Work Orders contained in this report, generated on 07/06/06
12:09.

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

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PPF0173	Astoria Area Wide/MOBIL	10077.015

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name:	Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant	Report Created:
	Project Number:	10077.015	07/06/06 12:09
	Project Manager:	Jason Howard	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PC North	PPF0173-01	Soil	06/05/06 12:00	06/05/06 15:35
PC West	PPF0173-02	Soil	06/05/06 12:00	06/05/06 15:35
PC East	PPF0173-03	Soil	06/05/06 12:00	06/05/06 15:35
PC South	PPF0173-04	Soil	06/05/06 12:00	06/05/06 15:35

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Gasoline Hydrocarbons per NW TPH-Gx Method
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPF0173-01 (PC North)		Soil			Sampled: 06/05/06 12:00					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	----	4.25	mg/kg dry	1x	6060191	06/05/06 17:16	06/06/06 15:09	
<i>Surrogate(s): a,a,a-TFT</i>			75.6%		50 - 150 %	"				"
PPF0173-02 (PC West)		Soil			Sampled: 06/05/06 12:00					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	----	4.30	mg/kg dry	1x	6060191	06/05/06 17:16	06/06/06 15:36	
<i>Surrogate(s): a,a,a-TFT</i>			75.5%		50 - 150 %	"				"
PPF0173-03 (PC East)		Soil			Sampled: 06/05/06 12:00					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	----	4.41	mg/kg dry	1x	6060191	06/05/06 17:16	06/06/06 16:04	
<i>Surrogate(s): a,a,a-TFT</i>			71.7%		50 - 150 %	"				"
PPF0173-04 (PC South)		Soil			Sampled: 06/05/06 12:00					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	----	4.47	mg/kg dry	1x	6060191	06/05/06 17:16	06/06/06 16:32	
<i>Surrogate(s): a,a,a-TFT</i>			72.9%		50 - 150 %	"				"

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPF0173-01 (PC North)		Soil			Sampled: 06/05/06 12:00					
Diesel Range Organics	NWTPH-Dx	1130	----	68.9	mg/kg dry	5x	6060215	06/06/06 15:20	06/07/06 11:22	D-04
Heavy Oil Range Hydrocarbons	"	3920	----	138	"	"	"	"	"	D-04
<i>Surrogate(s): 1-Chlorooctadecane</i>			92.6%		50 - 150 %	"			"	
PPF0173-02 (PC West)		Soil			Sampled: 06/05/06 12:00					
Diesel Range Organics	NWTPH-Dx	703	----	66.2	mg/kg dry	5x	6060215	06/06/06 15:20	06/07/06 11:22	D-04
Heavy Oil Range Hydrocarbons	"	2360	----	132	"	"	"	"	"	D-04
<i>Surrogate(s): 1-Chlorooctadecane</i>			105%		50 - 150 %	"			"	
PPF0173-03 (PC East)		Soil			Sampled: 06/05/06 12:00					
Diesel Range Organics	NWTPH-Dx	4510	----	282	mg/kg dry	20x	6060215	06/06/06 15:20	06/07/06 11:54	D-04
Heavy Oil Range Hydrocarbons	"	17100	----	563	"	"	"	"	"	D-04
<i>Surrogate(s): 1-Chlorooctadecane</i>			104%		50 - 150 %	"			"	
PPF0173-04 (PC South)		Soil			Sampled: 06/05/06 12:00					
Diesel Range Organics	NWTPH-Dx	2100	----	282	mg/kg dry	20x	6060215	06/06/06 15:20	06/07/06 13:48	D-04
Heavy Oil Range Hydrocarbons	"	7030	----	564	"	"	"	"	"	D-04
<i>Surrogate(s): 1-Chlorooctadecane</i>			NR		50 - 150 %	"			"	S-01

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPF0173-01 (PC North)		Soil			Sampled: 06/05/06 12:00					
1,2-Dibromoethane	EPA 8260B	ND	----	26.6	ug/kg dry	1x	6060214	06/06/06 08:45	06/06/06 11:20	
1,2-Dichloroethane	"	ND	----	26.6	"	"	"	"	"	
Benzene	"	ND	----	10.6	"	"	"	"	"	
Toluene	"	ND	----	26.6	"	"	"	"	"	
Ethylbenzene	"	ND	----	26.6	"	"	"	"	"	
Xylenes (total)	"	ND	----	53.2	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	21.3	"	"	"	"	"	
Naphthalene	"	ND	----	106	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	53.2	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	26.6	"	"	"	"	"	
Isopropylbenzene	"	ND	----	106	"	"	"	"	"	
n-Propylbenzene	"	ND	----	26.6	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			89.2%		75 - 125 %	0.02x				"
<i>1,2-DCA-d4</i>			93.0%		75 - 125 %	"				"
<i>Dibromofluoromethane</i>			90.1%		75 - 125 %	"				"
<i>Toluene-d8</i>			95.3%		75 - 125 %	"				"

PPF0173-02 (PC West)		Soil			Sampled: 06/05/06 12:00					
1,2-Dibromoethane	EPA 8260B	ND	----	26.8	ug/kg dry	1x	6060214	06/06/06 08:45	06/06/06 11:47	
1,2-Dichloroethane	"	ND	----	26.8	"	"	"	"	"	
Benzene	"	ND	----	10.7	"	"	"	"	"	
Toluene	"	ND	----	26.8	"	"	"	"	"	
Ethylbenzene	"	ND	----	26.8	"	"	"	"	"	
Xylenes (total)	"	ND	----	53.7	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	21.5	"	"	"	"	"	
Naphthalene	"	ND	----	107	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	53.7	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	26.8	"	"	"	"	"	
Isopropylbenzene	"	ND	----	107	"	"	"	"	"	
n-Propylbenzene	"	ND	----	26.8	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			89.3%		75 - 125 %	0.02x				"
<i>1,2-DCA-d4</i>			89.8%		75 - 125 %	"				"
<i>Dibromofluoromethane</i>			87.4%		75 - 125 %	"				"
<i>Toluene-d8</i>			96.7%		75 - 125 %	"				"

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc.

P.O. Box 80762
Portland, OR 97280-0762

Project Name: **Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant**

Project Number: 10077.015
Project Manager: Jason Howard

Report Created:
07/06/06 12:09

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPF0173-03 (PC East)		Soil								Sampled: 06/05/06 12:00
1,2-Dibromoethane	EPA 8260B	ND	----	28.3	ug/kg dry	1x	6060214	06/06/06 08:45	06/06/06 14:58	
1,2-Dichloroethane	"	ND	----	28.3	"	"	"	"	"	
Benzene	"	ND	----	11.3	"	"	"	"	"	
Toluene	"	ND	----	28.3	"	"	"	"	"	
Ethylbenzene	"	ND	----	28.3	"	"	"	"	"	
Xylenes (total)	"	ND	----	56.7	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	22.7	"	"	"	"	"	
Naphthalene	"	ND	----	113	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	56.7	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	29.5	----	28.3	"	"	"	"	"	
Isopropylbenzene	"	ND	----	113	"	"	"	"	"	
n-Propylbenzene	"	ND	----	28.3	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			93.0%		75 - 125 %	0.02x				"
<i>1,2-DCA-d4</i>			93.4%		75 - 125 %	"				"
<i>Dibromofluoromethane</i>			88.5%		75 - 125 %	"				"
<i>Toluene-d8</i>			97.4%		75 - 125 %	"				"

PPF0173-04 (PC South)		Soil								Sampled: 06/05/06 12:00
1,2-Dibromoethane	EPA 8260B	ND	----	27.0	ug/kg dry	1x	6060214	06/06/06 08:45	06/06/06 15:25	
1,2-Dichloroethane	"	ND	----	27.0	"	"	"	"	"	
Benzene	"	ND	----	10.8	"	"	"	"	"	
Toluene	"	ND	----	27.0	"	"	"	"	"	
Ethylbenzene	"	ND	----	27.0	"	"	"	"	"	
Xylenes (total)	"	ND	----	54.1	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	21.6	"	"	"	"	"	
Naphthalene	"	ND	----	108	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	54.1	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	27.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	108	"	"	"	"	"	
n-Propylbenzene	"	ND	----	27.0	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			93.5%		75 - 125 %	0.02x				"
<i>1,2-DCA-d4</i>			93.1%		75 - 125 %	"				"
<i>Dibromofluoromethane</i>			88.0%		75 - 125 %	"				"
<i>Toluene-d8</i>			97.2%		75 - 125 %	"				"

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Percent Dry Weight (Solids) per Standard Methods
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPF0173-01 (PC North)		Soil						Sampled: 06/05/06 12:00		
% Solids	NCA SOP	91.3	----	0.00	% by Weight	1x	6060227	06/06/06 10:05	06/07/06 11:05	
PPF0173-02 (PC West)		Soil						Sampled: 06/05/06 12:00		
% Solids	NCA SOP	92.8	----	0.00	% by Weight	1x	6060227	06/06/06 10:05	06/07/06 11:05	
PPF0173-03 (PC East)		Soil						Sampled: 06/05/06 12:00		
% Solids	NCA SOP	87.8	----	0.00	% by Weight	1x	6060227	06/06/06 10:05	06/07/06 11:05	
PPF0173-04 (PC South)		Soil						Sampled: 06/05/06 12:00		
% Solids	NCA SOP	88.2	----	0.00	% by Weight	1x	6060227	06/06/06 10:05	06/07/06 11:05	

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Gasoline Hydrocarbons per NW TPH-Gx Method - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6060191 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (6060191-BLK1)													Extracted: 06/05/06 13:29			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	---	1.95	mg/kg wet	1x	--	--	--	--	--	--	06/05/06 15:47			
<i>Surrogate(s): a,a,a-TFT</i>		<i>Recovery: 76.1%</i>		<i>Limits: 50-150%</i>		"						06/05/06 15:47				
LCS (6060191-BS2)													Extracted: 06/05/06 13:29			
Gasoline Range Hydrocarbons	NW TPH-Gx	21.2	---	3.91	mg/kg wet	1x	--	24.4	86.9%	(70-130)	--	--	06/05/06 14:52			
<i>Surrogate(s): a,a,a-TFT</i>		<i>Recovery: 78.7%</i>		<i>Limits: 50-150%</i>		"						06/05/06 14:52				
Duplicate (6060191-DUP1)													QC Source: PPF0136-01		Extracted: 06/05/06 13:29	
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	---	5.34	mg/kg dry	1x	ND	--	--	--	NR (40)		06/06/06 12:42			
<i>Surrogate(s): a,a,a-TFT</i>		<i>Recovery: 73.4%</i>		<i>Limits: 50-150%</i>		"						06/06/06 12:42				
Matrix Spike (6060191-MS2)													QC Source: PPF0136-04		Extracted: 06/05/06 13:29	
Gasoline Range Hydrocarbons	NW TPH-Gx	23.7	---	4.86	mg/kg dry	1x	ND	30.4	78.0%	(65-130)	--	--	06/06/06 14:42			
<i>Surrogate(s): a,a,a-TFT</i>		<i>Recovery: 71.1%</i>		<i>Limits: 50-150%</i>		"						06/06/06 14:42				

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6060215 Soil Preparation Method: EPA 3550 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6060215-BLK1)							Extracted: 06/06/06 15:20							
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	06/07/06 04:19	
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 107%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>06/07/06 04:19</i>	
LCS (6060215-BS1)							Extracted: 06/06/06 15:20							
Diesel Range Organics	NWTPH-Dx	121	---	12.5	mg/kg wet	1x	--	126	96.0%	(50-150)	--	--	06/07/06 03:45	
Heavy Oil Range Hydrocarbons	"	80.6	---	25.0	"	"	--	76.5	105%	"	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 100%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>06/07/06 03:45</i>	
Duplicate (6060215-DUP1)				QC Source: PPE1354-02				Extracted: 06/06/06 15:20						
Diesel Range Organics	NWTPH-Dx	ND	---	13.9	mg/kg dry	1x	ND	--	--	--	18.0% (50)		06/07/06 10:20	
Heavy Oil Range Hydrocarbons	"	ND	---	27.7	"	"	34.9	--	--	--	34.2%	"	"	Q-06
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 105%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>06/07/06 10:20</i>	
Duplicate (6060215-DUP2)				QC Source: PPF0136-01				Extracted: 06/06/06 15:20						
Diesel Range Organics	NWTPH-Dx	ND	---	17.7	mg/kg dry	1x	ND	--	--	--	NR (50)		06/07/06 09:48	
Heavy Oil Range Hydrocarbons	"	ND	---	35.5	"	"	ND	--	--	--	NR	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 96.9%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>06/07/06 09:48</i>	

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Darrell Auvil, Project Manager



EnviroLogic Resources, Inc.	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant
P.O. Box 80762	Project Number: 10077.015
Portland, OR 97280-0762	Project Manager: Jason Howard
	Report Created: 07/06/06 12:09

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 6060214 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (6060214-BLK1)													Extracted: 06/06/06 08:45			
1,2-Dibromoethane	EPA 8260B	ND	---	24.9	ug/kg wet	1x	--	--	--	--	--	--	06/06/06 18:08			
1,2-Dichloroethane	"	ND	---	24.9	"	"	--	--	--	--	--	--	"			
Benzene	"	ND	---	9.95	"	"	--	--	--	--	--	--	"			
Toluene	"	ND	---	24.9	"	"	--	--	--	--	--	--	"			
Ethylbenzene	"	ND	---	24.9	"	"	--	--	--	--	--	--	"			
Xylenes (total)	"	ND	---	49.8	"	"	--	--	--	--	--	--	"			
Methyl tert-butyl ether	"	ND	---	19.9	"	"	--	--	--	--	--	--	"			
Naphthalene	"	ND	---	99.5	"	"	--	--	--	--	--	--	"			
1,2,4-Trimethylbenzene	"	ND	---	49.8	"	"	--	--	--	--	--	--	"			
1,3,5-Trimethylbenzene	"	ND	---	24.9	"	"	--	--	--	--	--	--	"			
Isopropylbenzene	"	ND	---	99.5	"	"	--	--	--	--	--	--	"			
n-Propylbenzene	"	ND	---	24.9	"	"	--	--	--	--	--	--	"			
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>91.0%</i>	<i>Limits: 75-125%</i>		<i>0.02x</i>							<i>06/06/06 18:08</i>			
	<i>1,2-DCA-d4</i>		<i>94.0%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Dibromofluoromethane</i>		<i>89.9%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Toluene-d8</i>		<i>97.5%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
LCS (6060214-BS1)													Extracted: 06/06/06 08:45			
Benzene	EPA 8260B	999	---	9.99	ug/kg wet	1x	--	999	100%	(80-120)	--	--	06/06/06 09:31			
Toluene	"	1010	---	25.0	"	"	--	"	101%	"	--	--	"			
Ethylbenzene	"	1040	---	25.0	"	"	--	"	104%	"	--	--	"			
Xylenes (total)	"	3160	---	50.0	"	"	--	3000	105%	(70-130)	--	--	"			
Methyl tert-butyl ether	"	1070	---	20.0	"	"	--	999	107%	(80-128)	--	--	"			
Naphthalene	"	1040	---	99.9	"	"	--	"	104%	(76.1-153)	--	--	"			
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>95.0%</i>	<i>Limits: 75-125%</i>		<i>0.02x</i>							<i>06/06/06 09:31</i>			
	<i>1,2-DCA-d4</i>		<i>97.0%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Dibromofluoromethane</i>		<i>99.0%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Toluene-d8</i>		<i>95.5%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
Matrix Spike (6060214-MS1)													QC Source: PPF0173-01		Extracted: 06/06/06 08:45	
Benzene	EPA 8260B	1070	---	10.6	ug/kg dry	1x	ND	1060	101%	(80-124)	--	--	06/06/06 09:59			
Toluene	"	1080	---	26.6	"	"	5.32	"	101%	(79.7-131)	--	--	"			
Ethylbenzene	"	1160	---	26.6	"	"	ND	"	109%	(80-124)	--	--	"			
Xylenes (total)	"	3460	---	53.2	"	"	ND	3190	108%	(70-130)	--	--	"			
Methyl tert-butyl ether	"	1130	---	21.3	"	"	ND	1060	107%	(80-130)	--	--	"			
Naphthalene	"	1090	---	106	"	"	10.6	"	102%	(69-163)	--	--	"			
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>96.2%</i>	<i>Limits: 75-125%</i>		<i>0.02x</i>							<i>06/06/06 09:59</i>			
	<i>1,2-DCA-d4</i>		<i>95.3%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Dibromofluoromethane</i>		<i>95.8%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			
	<i>Toluene-d8</i>		<i>96.7%</i>	<i>75-125%</i>		<i>"</i>							<i>"</i>			

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Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6060214 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6060214-MSD1)				QC Source: PPF0173-01			Extracted: 06/06/06 08:45							
Benzene	EPA 8260B	1100	---	10.6	ug/kg dry	1x	ND	1060	104%	(80-124)	2.76%	(25)	06/06/06 10:26	
Toluene	"	1100	---	26.6	"	"	5.32	"	103%	(79.7-131)	1.83%	"	"	
Ethylbenzene	"	1170	---	26.6	"	"	ND	"	110%	(80-124)	0.858%	"	"	
Xylenes (total)	"	3500	---	53.2	"	"	ND	3190	110%	(70-130)	1.15%	"	"	
Methyl tert-butyl ether	"	1120	---	21.3	"	"	ND	1060	106%	(80-130)	0.889%	"	"	
Naphthalene	"	1080	---	106	"	"	10.6	"	101%	(69-163)	0.922%	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>96.2%</i>	<i>Limits:</i>		<i>75-125%</i>	<i>0.02x</i>							
<i>1,2-DCA-d4</i>			<i>93.9%</i>	<i>75-125%</i>		<i>"</i>								
<i>Dibromofluoromethane</i>			<i>95.8%</i>	<i>75-125%</i>		<i>"</i>								
<i>Toluene-d8</i>			<i>98.6%</i>	<i>75-125%</i>		<i>"</i>								

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant Project Number: 10077.015 Project Manager: Jason Howard	Report Created: 07/06/06 12:09
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Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6060227 Other dry Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Duplicate (6060227-DUP1)				QC Source: PPF0173-01			Extracted: 06/06/06 10:05					
% Solids	NCA SOP	89.7	---	0.00 % by Weight	1x	91.3	--	--	--	1.77% (20)	06/07/06 11:05	
Duplicate (6060227-DUP2)				QC Source: PPF0173-02			Extracted: 06/06/06 10:05					
% Solids	NCA SOP	90.5	---	0.00 % by Weight	1x	92.8	--	--	--	2.51% (20)	06/07/06 11:05	

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Darrell Auvil, Project Manager



EnviroLogic Resources, Inc.

P.O. Box 80762
Portland, OR 97280-0762

Project Name: **Astoria Area Wide/MOBIL-Niemi Oil Bulk Plant**

Project Number: 10077.015

Project Manager: Jason Howard

Report Created:

07/06/06 12:09


Notes and Definitions

Report Specific Notes:

- D-04 - The hydrocarbons present in this sample are a complex mixture of diesel range and heavy oil range organics.
- Q-06 - RPD is not applicable for analyte concentrations less than 5 times the MRL.
- S-01 - The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.

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 - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and Limits - percent solids, where applicable.
- Electronic - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Signature - 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.



Darrell Auvil, Project Manager





11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
 11922 E 1st Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
 9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
 20332 Empire Ave, Ste F1, Bend, OR 97701-5712 541-383-9310 FAX 382-7588
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **PPF0173**

NCA CLIENT: EnviroLogic Resources		INVOICE TO: EnviroLogic Resources		TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD</small> Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD</small> OTHER Specify: <small>* Turnaround Request less than standard may incur Peak Charge.</small>			
REPORT TO: EnviroLogic Resources		P.O. NUMBER: 10077.015					
ADDRESS: P.O. BOX 80762 PORTLAND, OR 97280		PRESERVATIVE					
PHONE: 503-768-5121 FAX: 503-768-5122		PROJECT NAME: ASTORIA AREA-WIDE/ FORMER MOBIL/NIEMI OIL BULK PLANT		REQUESTED ANALYSES			
PROJECT NUMBER: 10077.015		SAMPLED BY: JASON HOWARD					
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME					
				RCRA 8 METALS NW-TPH DX/GX QID RBDM-VCS BZ60 RBDM-PHYS B310			
1	PC North	6/5/06 Noon	X X X	<div style="border: 2px solid black; padding: 10px; text-align: center;"> <h2>Revised COC</h2> <p>6/5/06 Date Dmt Initial</p> </div>			
2	PC West	"	X X X				
3	PC East	"	X X X				
4	PC South	"	X X X				
5				<p style="text-align: center;">Cancelled NO metals per Tom Calabrese Dmt 5/5/06</p>			
6							
7							
8							
9							
10							
RELEASED BY: Jason C. Howard		DATE: 6/5/06		RECEIVED BY: [Signature]		DATE: 6/5/06	
PRINT NAME: JASON C. HOWARD FIRM: ENVIROLOGIC RESOURCES		TIME: 3:35P		PRINT NAME: CALLIE FADSWELL FIRM: TAP		TIME: 1935	
RELEASED BY:		DATE:		RECEIVED BY:		DATE:	
PRINT NAME:		TIME:		PRINT NAME:		TIME:	
FIRM:		FIRM:		FIRM:		FIRM:	
ADDITIONAL REMARKS:						TEMP: On Ice	
COC REV 09/04		24 Hr. Turnaround Please!				PAGE OF	

TAT: _____

Non-Conformances?

Circle Y or N

(If Y, see other side)

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: _____

(applies to temperature receipt)

Logged-in By: _____

Unpacked/Labeled By: _____

Cooler ID: _____ (____ of ____)

Date: 10/15

Date: 10/15

Date: 10/15

Work Order No. PPF0173

Time: 1730

Initials: LF

Initials: LF

Client: ENVIRONMENTAL

Initials: LF

Project: _____

Container Type:

COC Seals:

Packing Material

____ Cooler

____ Ship. Container

____ Sign By

____ Bubble Bags

____ Styrofoam

____ Box

____ On Bottles

____ Date

____ Foam Packs

None/Other _____

None

None/Other _____

Refrigerant:

____ Gel Ice Pack

____ None

____ Loose Ice

None/Other _____

Received Via: Bill# _____

____ Fed Ex

Client

____ UPS

____ NCA Courier

____ DHL

____ Mid Valley

____ Senvoy

____ TDP

____ GS

____ Other _____

Cooler Temperature (IR): (1.3) °C Plastic Glass (Frozen filters, Tedlars and aqueous Metals exempt)
(Circle one)

Temperature Blank? _____ °C or NA

Trip Blank? _____

Y or N or NA

Sample Containers:

ID

ID

Intact? _____

Y or N

Metals Preserved? _____

Y or N or NA

Provided by NCA? _____

Y or N

Client QAPP Preserved? _____

Y or N or NA

Correct Type? _____

Y or N

Adequate Volume? _____
(for tests requested)

Y or N

#Containers match COC? _____

Y or N

Water VOAs: Headspace? _____

Y or N or NA

IDs/time/date match COC? _____

Y or N

Comments: _____

Hold Times in hold? _____

Y or N

PROJECT MANAGEMENT

Is the Chain of Custody complete? _____

Y or N If N, circle the items that were incomplete

Comments, Problems _____

Total access set up? _____

Y or N

Has client been contacted regarding non-conformances? _____

Y or N

If Y, _____ / _____
Date Time

PM Initials: _____

Date: _____

Time: _____

September 29, 2006

Tom Calabrese
EnviroLogic Resources, Inc.
P.O. Box 80762
Portland, OR 97280-0762

RE: Soil Stockpile Removal

Enclosed are the results of analyses for samples received by the laboratory on 09/08/06 14:30.
The following list is a summary of the Work Orders contained in this report, generated on 09/29/06
14:22.

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

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PPI0328	Soil Stockpile Removal	1007.022

TestAmerica - Portland, OR

*The results in this report apply to the samples analyzed in accordance with the chain
of custody document. This analytical report must be reproduced in its entirety.*



Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FMNBP-SS-1	PPI0328-01	Soil	09/06/06 10:05	09/08/06 14:30
FMNBP-SS-3	PPI0328-02	Soil	09/06/06 10:45	09/08/06 14:30
FMNBP-SS-4	PPI0328-03	Soil	09/06/06 14:05	09/08/06 14:30
FMNBP-SS-5	PPI0328-04	Soil	09/06/06 14:20	09/08/06 14:30

TestAmerica - Portland, OR

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Gasoline Hydrocarbons per NW TPH-Gx Method
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-01 (FMNBP-SS-1)		Soil						Sampled: 09/06/06 10:05		
Gasoline Range Hydrocarbons	NW TPH-Gx	1120	-----	86.3	mg/kg dry	20x	6090403	09/11/06 09:28	09/13/06 23:43	
<i>Surrogate(s): a.a.a-TFT</i>			149%		50 - 150 %	"				"
PPI0328-02 (FMNBP-SS-3)		Soil						Sampled: 09/06/06 10:45		
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	-----	4.20	mg/kg dry	1x	6090403	09/11/06 09:28	09/12/06 23:29	
<i>Surrogate(s): a.a.a-TFT</i>			77.9%		50 - 150 %	"				"
PPI0328-03 (FMNBP-SS-4)		Soil						Sampled: 09/06/06 14:05		
Gasoline Range Hydrocarbons	NW TPH-Gx	1240	-----	84.9	mg/kg dry	20x	6090403	09/11/06 09:28	09/14/06 00:11	
<i>Surrogate(s): a.a.a-TFT</i>			99.6%		50 - 150 %	"				"
PPI0328-04 (FMNBP-SS-5)		Soil						Sampled: 09/06/06 14:20		
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	-----	4.20	mg/kg dry	1x	6090403	09/11/06 09:28	09/12/06 23:57	
<i>Surrogate(s): a.a.a-TFT</i>			77.9%		50 - 150 %	"				"

TestAmerica - Portland, OR

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-01 (FMNBP-SS-1)		Soil			Sampled: 09/06/06 10:05					
Diesel Range Organics	NWTPH-Dx	6920	----	54.1	mg/kg dry	4x	6090442	09/12/06 14:50	09/14/06 03:13	
Heavy Oil Range Hydrocarbons	"	381	----	108	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			100%		50 - 150 %	"				
PPI0328-02 (FMNBP-SS-3)		Soil			Sampled: 09/06/06 10:45					
Diesel Range Organics	NWTPH-Dx	147	----	65.5	mg/kg dry	5x	6090442	09/12/06 14:50	09/14/06 10:37	D-16
Heavy Oil Range Hydrocarbons	"	303	----	131	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			55.1%		50 - 150 %	"				
PPI0328-03 (FMNBP-SS-4)		Soil			Sampled: 09/06/06 14:05					
Diesel Range Organics	NWTPH-Dx	3480	----	38.9	mg/kg dry	3x	6090442	09/12/06 14:50	09/14/06 11:11	
Heavy Oil Range Hydrocarbons	"	ND	----	77.8	"	"	"	"	"	R-05
<i>Surrogate(s): 1-Chlorooctadecane</i>			98.8%		50 - 150 %	"				
PPI0328-04 (FMNBP-SS-5)		Soil			Sampled: 09/06/06 14:20					
Diesel Range Organics	NWTPH-Dx	399	----	66.8	mg/kg dry	5x	6090442	09/12/06 14:50	09/14/06 11:45	D-16
Heavy Oil Range Hydrocarbons	"	213	----	134	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			57.3%		50 - 150 %	"				

TestAmerica - Portland, OR

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-01 (FMNBP-SS-1)		Soil			Sampled: 09/06/06 10:05					
1,2-Dibromoethane	EPA 8260B	ND	----	525	ug/kg dry	20x	6090696	09/14/06 09:00	09/19/06 00:20	
1,2-Dichloroethane	"	ND	----	525	"	"	"	"	"	
Benzene	"	ND	----	210	"	"	"	"	"	
Toluene	"	ND	----	525	"	"	"	"	"	
Ethylbenzene	"	30600	----	525	"	"	"	"	"	
Xylenes (total)	"	26800	----	1050	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	420	"	"	"	"	"	
Naphthalene	"	29000	----	2100	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	172000	----	1050	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	13900	----	525	"	"	"	"	"	
Isopropylbenzene	"	4020	----	2100	"	"	"	"	"	
n-Propylbenzene	"	21400	----	525	"	"	"	"	"	
<i>Surrogate(s):</i>										
4-BFB			91.4%		75 - 125 %	0.02x				"
1,2-DCA-d4			88.6%		75 - 125 %	"				"
Dibromofluoromethane			84.8%		75 - 125 %	"				"
Toluene-d8			93.8%		75 - 125 %	"				"

PPI0328-02 (FMNBP-SS-3)		Soil			Sampled: 09/06/06 10:45					
1,2-Dibromoethane	EPA 8260B	ND	----	25.3	ug/kg dry	1x	6090696	09/14/06 09:00	09/18/06 22:03	
1,2-Dichloroethane	"	ND	----	25.3	"	"	"	"	"	
Benzene	"	ND	----	10.1	"	"	"	"	"	
Toluene	"	ND	----	25.3	"	"	"	"	"	
Ethylbenzene	"	ND	----	25.3	"	"	"	"	"	
Xylenes (total)	"	ND	----	50.6	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	20.3	"	"	"	"	"	
Naphthalene	"	ND	----	101	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	50.6	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	25.3	"	"	"	"	"	
isopropylbenzene	"	ND	----	101	"	"	"	"	"	
n-Propylbenzene	"	ND	----	25.3	"	"	"	"	"	
<i>Surrogate(s):</i>										
4-BFB			84.7%		75 - 125 %	0.02x				"
1,2-DCA-d4			86.2%		75 - 125 %	"				"
Dibromofluoromethane			82.3%		75 - 125 %	"				"
Toluene-d8			87.2%		75 - 125 %	"				"

Darrell W. Auvil



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-03 (FMNBP-SS-4)		Soil		Sampled: 09/06/06 14:05						
1,2-Dibromoethane	EPA 8260B	ND	----	259	ug/kg dry	10x	6090696	09/14/06 09:00	09/19/06 22:19	
1,2-Dichloroethane	"	ND	----	259	"	"	"	"	"	
Benzene	"	ND	----	104	"	"	"	"	"	
Toluene	"	ND	----	259	"	"	"	"	"	
Ethylbenzene	"	2420	----	259	"	"	"	"	"	
Xylenes (total)	"	3700	----	518	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	207	"	"	"	"	"	
Naphthalene	"	4550	----	1040	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	53500	----	518	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	7990	----	259	"	"	"	"	"	
Isopropylbenzene	"	1210	----	1040	"	"	"	"	"	
n-Propylbenzene	"	3870	----	259	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			<i>96.6%</i>		<i>75 - 125 %</i>	<i>0.02x</i>				"
<i>1,2-DCA-d4</i>			<i>87.4%</i>		<i>75 - 125 %</i>	"				"
<i>Dibromofluoromethane</i>			<i>87.9%</i>		<i>75 - 125 %</i>	"				"
<i>Toluene-d8</i>			<i>91.8%</i>		<i>75 - 125 %</i>	"				"

PPI0328-04 (FMNBP-SS-5)		Soil		Sampled: 09/06/06 14:20						
1,2-Dibromoethane	EPA 8260B	ND	----	25.8	ug/kg dry	1x	6090696	09/14/06 09:00	09/18/06 22:30	
1,2-Dichloroethane	"	ND	----	25.8	"	"	"	"	"	
Benzene	"	ND	----	10.3	"	"	"	"	"	
Toluene	"	ND	----	25.8	"	"	"	"	"	
Ethylbenzene	"	ND	----	25.8	"	"	"	"	"	
Xylenes (total)	"	ND	----	51.5	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	20.6	"	"	"	"	"	
Naphthalene	"	ND	----	103	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	51.5	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	25.8	"	"	"	"	"	
Isopropylbenzene	"	ND	----	103	"	"	"	"	"	
n-Propylbenzene	"	ND	----	25.8	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>			<i>109%</i>		<i>75 - 125 %</i>	<i>0.02x</i>				"
<i>1,2-DCA-d4</i>			<i>101%</i>		<i>75 - 125 %</i>	"				"
<i>Dibromofluoromethane</i>			<i>98.5%</i>		<i>75 - 125 %</i>	"				"
<i>Toluene-d8</i>			<i>110%</i>		<i>75 - 125 %</i>	"				"

TestAmerica - Portland, OR

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Polynuclear Aromatic Compounds per EPA 8270M-SIM
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-01 (FMNBP-SS-1)		Soil					Sampled: 09/06/06 10:05			R-05
Acenaphthene	EPA 8270m	1290	----	146	ug/kg dry	10x	6090533	09/14/06 12:15	09/22/06 23:04	
Acenaphthylene	"	ND	----	365	"	"	"	"	"	R-03
Anthracene	"	1290	----	146	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	146	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	146	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	146	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	146	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	146	"	"	"	"	"	
Chrysene	"	ND	----	146	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	146	"	"	"	"	"	
Fluoranthene	"	480	----	146	"	"	"	"	"	
Fluorene	"	1730	----	146	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	146	"	"	"	"	"	
Naphthalene	"	14500	----	2920	"	200x	"	"	09/25/06 22:28	
Phenanthrene	"	5300	----	146	"	10x	"	"	09/22/06 23:04	
Pyrene	"	797	----	146	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>103%</i>		<i>32 - 134 %</i>	"			"	
<i>Pyrene-d10</i>			<i>116%</i>		<i>41 - 152 %</i>	"			"	
<i>Benzo (a) pyrene-d12</i>			<i>101%</i>		<i>36 - 145 %</i>	"			"	

PPI0328-02 (FMNBP-SS-3)		Soil					Sampled: 09/06/06 10:45			
Acenaphthene	EPA 8270m	ND	----	14.0	ug/kg dry	1x	6090533	09/14/06 12:15	09/28/06 01:16	
Acenaphthylene	"	ND	----	14.0	"	"	"	"	"	
Anthracene	"	ND	----	14.0	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	14.0	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	14.0	"	"	"	"	"	
Benzo (b) fluoranthene	"	20.4	----	14.0	"	"	"	"	"	
Benzo (ghi) perylene	"	49.1	----	14.0	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	14.0	"	"	"	"	"	
Chrysene	"	22.5	----	14.0	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	14.0	"	"	"	"	"	
Fluoranthene	"	44.6	----	14.0	"	"	"	"	"	
Fluorene	"	ND	----	14.0	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	25.3	----	14.0	"	"	"	"	"	
Naphthalene	"	30.3	----	14.0	"	"	"	"	"	
Phenanthrene	"	44.4	----	14.0	"	"	"	"	"	
Pyrene	"	55.4	----	14.0	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>82.3%</i>		<i>32 - 134 %</i>	"			"	
<i>Pyrene-d10</i>			<i>82.3%</i>		<i>41 - 152 %</i>	"			"	
<i>Benzo (a) pyrene-d12</i>			<i>66.2%</i>		<i>36 - 145 %</i>	"			"	

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Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc.
 P.O. Box 80762
 Portland, OR 97280-0762

Project Name: **Soil Stockpile Removal**
 Project Number: 1007.022
 Project Manager: Tom Calabrese

Report Created:
 09/29/06 14:22

Polynuclear Aromatic Compounds per EPA 8270M-SIM
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-03 (FMNBP-SS-4)		Soil				Sampled: 09/06/06 14:05				R-05
Acenaphthene	EPA 8270m	530	----	141	ug/kg dry	10x	6090533	09/14/06 12:15	09/23/06 00:11	
Acenaphthylene	"	ND	----	212	"	"	"	"	"	R-03
Anthracene	"	386	----	141	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	141	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	141	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	141	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	141	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	141	"	"	"	"	"	
Chrysene	"	ND	----	141	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	141	"	"	"	"	"	
Fluoranthene	"	ND	----	141	"	"	"	"	"	
Fluorene	"	878	----	141	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	141	"	"	"	"	"	
Naphthalene	"	ND	----	1550	"	"	"	"	"	R-03
Phenanthrene	"	1650	----	141	"	"	"	"	"	
Pyrene	"	225	----	141	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			83.3%		32 - 134 %	"				
<i>Pyrene-d10</i>			102%		41 - 152 %	"				
<i>Benzo (a) pyrene-d12</i>			98.1%		36 - 145 %	"				
PPI0328-04 (FMNBP-SS-5)		Soil				Sampled: 09/06/06 14:20				R-05
Acenaphthene	EPA 8270m	ND	----	28.2	ug/kg dry	2x	6090533	09/14/06 12:15	09/23/06 20:31	
Acenaphthylene	"	ND	----	28.2	"	"	"	"	"	
Anthracene	"	ND	----	28.2	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	28.2	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	28.2	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	28.2	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	28.2	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	28.2	"	"	"	"	"	
Chrysene	"	ND	----	28.2	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	28.2	"	"	"	"	"	
Fluoranthene	"	ND	----	28.2	"	"	"	"	"	
Fluorene	"	ND	----	28.2	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	28.2	"	"	"	"	"	
Naphthalene	"	ND	----	28.2	"	"	"	"	"	
Phenanthrene	"	ND	----	28.2	"	"	"	"	"	
Pyrene	"	ND	----	28.2	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			77.8%		32 - 134 %	"				
<i>Pyrene-d10</i>			91.9%		41 - 152 %	"				
<i>Benzo (a) pyrene-d12</i>			85.7%		36 - 145 %	"				

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Darrell Auvil, Project Manager




EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Percent Dry Weight (Solids) per Standard Methods
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PPI0328-01 (FMNBP-SS-1)		Soil			Sampled: 09/06/06 10:05					
% Solids	NCA SOP	91.2	----	0.00	% by Weight	1x	6090538	09/14/06 08:55	09/14/06 08:55	
PPI0328-02 (FMNBP-SS-3)		Soil			Sampled: 09/06/06 10:45					
% Solids	NCA SOP	95.7	----	0.00	% by Weight	1x	6090538	09/14/06 08:55	09/14/06 08:55	
PPI0328-03 (FMNBP-SS-4)		Soil			Sampled: 09/06/06 14:05					
% Solids	NCA SOP	94.0	----	0.00	% by Weight	1x	6090538	09/14/06 08:55	09/14/06 08:55	
PPI0328-04 (FMNBP-SS-5)		Soil			Sampled: 09/06/06 14:20					
% Solids	NCA SOP	94.2	----	0.00	% by Weight	1x	6090538	09/14/06 08:55	09/14/06 08:55	

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Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Gasoline Hydrocarbons per NW TPH-Gx Method - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 6090403 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Blank (6090403-BLK1)							Extracted: 09/11/06 13:53					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	---	4.02	mg/kg wet	1x	--	--	--	--	09/12/06 02:15	
<i>Surrogate(s): a.a.a-TFT</i>		<i>Recovery: 80.9%</i>		<i>Limits: 50-150%</i>		<i>"</i>					<i>09/12/06 02:15</i>	
LCS (6090403-BS1)							Extracted: 09/11/06 13:53					
Gasoline Range Hydrocarbons	NW TPH-Gx	22.0	---	4.00	mg/kg wet	1x	--	25.0	88.0% (70-130)	--	09/12/06 02:42	
<i>Surrogate(s): a.a.a-TFT</i>		<i>Recovery: 83.6%</i>		<i>Limits: 50-150%</i>		<i>"</i>					<i>09/12/06 02:42</i>	
Duplicate (6090403-DUP1)				QC Source: PPI0294-01			Extracted: 09/11/06 13:53					
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	---	4.55	mg/kg dry	1x	ND	--	--	20.7% (40)	09/12/06 03:38	
<i>Surrogate(s): a.a.a-TFT</i>		<i>Recovery: 78.5%</i>		<i>Limits: 50-150%</i>		<i>"</i>					<i>09/12/06 03:38</i>	
Duplicate (6090403-DUP2)				QC Source: PPI0290-02			Extracted: 09/11/06 13:53					
Gasoline Range Hydrocarbons	NW TPH-Gx	5.05	---	4.93	mg/kg dry	1x	ND	--	--	3.83% (40)	09/12/06 10:03	
<i>Surrogate(s): a.a.a-TFT</i>		<i>Recovery: 77.6%</i>		<i>Limits: 50-150%</i>		<i>"</i>					<i>09/12/06 10:03</i>	
Matrix Spike (6090403-MS1)				QC Source: PPI0248-03			Extracted: 09/11/06 13:53					
Gasoline Range Hydrocarbons	NW TPH-Gx	25.5	---	4.76	mg/kg dry	1x	1.72	29.7	80.1% (65-130)	--	09/12/06 11:25	
<i>Surrogate(s): a.a.a-TFT</i>		<i>Recovery: 82.5%</i>		<i>Limits: 50-150%</i>		<i>"</i>					<i>09/12/06 11:25</i>	

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Darrell Auvil, Project Manager

EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 6090442 Soil Preparation Method: EPA 3550 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6090442-BLK1)													Extracted: 09/12/06 14:50	
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	09/13/06 21:46	
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 107%</i>		<i>Limits: 50-150%</i>		"							<i>09/13/06 21:46</i>	
LCS (6090442-BSI)													Extracted: 09/12/06 14:50	
Diesel Range Organics	NWTPH-Dx	132	---	12.5	mg/kg wet	1x	--	128	103%	(50-150)	--	--	09/13/06 21:16	
Heavy Oil Range Hydrocarbons	"	86.6	---	25.0	"	"	--	80.0	108%	"	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 108%</i>		<i>Limits: 50-150%</i>		"							<i>09/13/06 21:16</i>	
Duplicate (6090442-DUP1)													QC Source: PPI0364-01 Extracted: 09/12/06 14:50	
Diesel Range Organics	NWTPH-Dx	48.4	---	15.1	mg/kg dry	1x	42.3	--	--	--	13.5% (50)		09/13/06 19:11	
Heavy Oil Range Hydrocarbons	"	140	---	30.2	"	"	126	--	--	--	10.5%	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 103%</i>		<i>Limits: 50-150%</i>		"							<i>09/13/06 19:11</i>	
Duplicate (6090442-DUP2)													QC Source: PPI0364-02 Extracted: 09/12/06 14:50	
Diesel Range Organics	NWTPH-Dx	33.9	---	14.7	mg/kg dry	1x	ND	--	--	--	90.4% (50)		09/13/06 19:42	Q-14
Heavy Oil Range Hydrocarbons	"	98.5	---	29.4	"	"	37.6	--	--	--	89.5%	"	"	Q-14
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 102%</i>		<i>Limits: 50-150%</i>		"							<i>09/13/06 19:42</i>	

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Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica - Portland, OR

QC Batch: 6090696 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

Blank (6090696-BLK1) Extracted: 09/18/06 13:00

1,2-Dibromoethane	EPA 8260B	ND	---	25.0	ug/kg wet	1x	--	--	--	--	09/18/06 21:35	
1,2-Dichloroethane	"	ND	---	25.0	"	"	--	--	--	--	"	
Benzene	"	ND	---	9.98	"	"	--	--	--	--	"	
Toluene	"	ND	---	25.0	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	25.0	"	"	--	--	--	--	"	
Xylenes (total)	"	ND	---	49.9	"	"	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	20.0	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	99.8	"	"	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	49.9	"	"	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	25.0	"	"	--	--	--	--	"	
Isopropylbenzene	"	ND	---	99.8	"	"	--	--	--	--	"	
n-Propylbenzene	"	ND	---	25.0	"	"	--	--	--	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>94.0%</i>	<i>Limis:</i>	<i>75-125% 0.02x</i>						<i>09/18/06 21:35</i>	
	<i>1,2-DCA-d4</i>		<i>89.5%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Dibromofluoromethane</i>		<i>88.5%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Toluene-d8</i>		<i>91.5%</i>		<i>75-125% "</i>						<i>"</i>	

LCS (6090696-BS1) Extracted: 09/18/06 13:00

Benzene	EPA 8260B	1110	---	9.98	ug/kg wet	1x	--	998	111% (81.8-125)	--	09/18/06 19:18	
Toluene	"	1080	---	25.0	"	"	--	"	108% (80-125)	--	"	
Ethylbenzene	"	1130	---	25.0	"	"	--	"	113% (80-120)	--	"	
Xylenes (total)	"	3360	---	49.9	"	"	--	2990	112% (70-130)	--	"	
Methyl tert-butyl ether	"	1140	---	20.0	"	"	--	998	114% (80-128)	--	"	
Naphthalene	"	1120	---	99.8	"	"	--	"	112% (76.1-153)	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>108%</i>	<i>Limis:</i>	<i>75-125% 0.02x</i>						<i>09/18/06 19:18</i>	
	<i>1,2-DCA-d4</i>		<i>109%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Dibromofluoromethane</i>		<i>110%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Toluene-d8</i>		<i>111%</i>		<i>75-125% "</i>						<i>"</i>	

Matrix Spike (6090696-MS1) QC Source: PPI0328-02 Extracted: 09/14/06 09:00

Benzene	EPA 8260B	1050	---	10.1	ug/kg dry	1x	ND	1010	104% (68.5-125)	--	09/18/06 19:45	
Toluene	"	1020	---	25.3	"	"	8.61	"	100% (70.3-125)	--	"	
Ethylbenzene	"	1150	---	25.3	"	"	ND	"	114% (80-124)	--	"	
Xylenes (total)	"	3400	---	50.6	"	"	22.3	3040	111% (70-130)	--	"	
Methyl tert-butyl ether	"	1060	---	20.3	"	"	ND	1010	105% (80-130)	--	"	
Naphthalene	"	1060	---	101	"	"	13.7	"	104% (69-163)	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>93.1%</i>	<i>Limis:</i>	<i>75-125% 0.02x</i>						<i>09/18/06 19:45</i>	
	<i>1,2-DCA-d4</i>		<i>86.7%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Dibromofluoromethane</i>		<i>88.2%</i>		<i>75-125% "</i>						<i>"</i>	
	<i>Toluene-d8</i>		<i>90.6%</i>		<i>75-125% "</i>						<i>"</i>	

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Darrell W. Auvil
 Darrell Auvil, Project Manager

EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6090696 Soil Preparation Method: EPA 5035 Modified

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Matrix Spike Dup (6090696-MSD1)			QC Source: PPI0328-02				Extracted: 09/14/06 09:00					
Benzene	EPA 8260B	1040	---	10.1	ug/kg dry	1x	ND	1010	103% (68.5-125)	0.957% (25)	09/18/06 20:12	
Toluene	"	1010	---	25.3	"	"	8.61	"	99.1% (70.3-125)	0.985%	"	"
Ethylbenzene	"	1110	---	25.3	"	"	ND	"	110% (80-124)	3.54%	"	"
Xylenes (total)	"	3320	---	50.6	"	"	22.3	3040	108% (70-130)	2.38%	"	"
Methyl tert-butyl ether	"	1030	---	20.3	"	"	ND	1010	102% (80-130)	2.87%	"	"
Naphthalene	"	1040	---	101	"	"	13.7	"	102% (69-163)	1.90%	"	"
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>88.7%</i>	<i>Limits: 75-125% 0.02x</i>		<i>09/18/06 20:12</i>						
<i>1,2-DCA-d4</i>			<i>83.7%</i>	<i>75-125%</i>		<i>"</i>						
<i>Dibromofluoromethane</i>			<i>87.2%</i>	<i>75-125%</i>		<i>"</i>						
<i>Toluene-d8</i>			<i>89.2%</i>	<i>75-125%</i>		<i>"</i>						

Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
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Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6090533 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Blank (6090533-BLK1)												
Extracted: 09/14/06 12:15												
Acenaphthene	EPA 8270m	ND	---	13.4	ug/kg wet	1x	--	--	--	--	09/22/06 19:44	
Acenaphthylene	"	ND	---	13.4	"	"	--	--	--	--	"	
Anthracene	"	ND	---	13.4	"	"	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.4	"	"	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.4	"	"	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.4	"	"	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	"	
Chrysene	"	ND	---	13.4	"	"	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.4	"	"	--	--	--	--	"	
Fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	"	
Fluorene	"	ND	---	13.4	"	"	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.4	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	13.4	"	"	--	--	--	--	"	
Phenanthrene	"	ND	---	13.4	"	"	--	--	--	--	"	
Pyrene	"	ND	---	13.4	"	"	--	--	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>80.9%</i>	<i>Limits:</i>	<i>32-134%</i>	"					<i>09/22/06 19:44</i>	
<i>Pyrene-d10</i>			<i>103%</i>		<i>41-152%</i>	"					"	
<i>Benzo (a) pyrene-d12</i>			<i>102%</i>		<i>36-145%</i>	"					"	

Blank (6090533-BLK2)												
Extracted: 09/14/06 20:30												
Acenaphthene	EPA 8270m	ND	---	13.3	ug/kg wet	1x	--	--	--	--	09/22/06 20:17	
Acenaphthylene	"	ND	---	13.3	"	"	--	--	--	--	"	
Anthracene	"	ND	---	13.3	"	"	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.3	"	"	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.3	"	"	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.3	"	"	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	"	
Chrysene	"	ND	---	13.3	"	"	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.3	"	"	--	--	--	--	"	
Fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	"	
Fluorene	"	ND	---	13.3	"	"	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.3	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	13.3	"	"	--	--	--	--	"	
Phenanthrene	"	ND	---	13.3	"	"	--	--	--	--	"	
Pyrene	"	ND	---	13.3	"	"	--	--	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>87.7%</i>	<i>Limits:</i>	<i>32-134%</i>	"					<i>09/22/06 20:17</i>	
<i>Pyrene-d10</i>			<i>106%</i>		<i>41-152%</i>	"					"	

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
---	---	-----------------------------------

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6090533 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

Blank (6090533-BLK2) Extracted: 09/14/06 20:30

Surrogate(s): Benzo (a) pyrene-d12 Recovery: 107% Limits: 36-145% 1x 09/22/06 20:17

LCS (6090533-BS1) Extracted: 09/14/06 12:15 Q-32

Acenaphthene	EPA 8270m	148	---	13.2	ug/kg wet	1x	--	165	89.7% (33-139)	--	--	09/22/06 20:51
Benzo (a) pyrene	"	188	---	13.2	"	"	--	"	114% (45-149)	--	--	"
Pyrene	"	151	---	13.2	"	"	--	"	91.5% (39-138)	--	--	"
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>84.3%</i>	<i>Limits: 32-134%</i>		<i>"</i>						<i>09/22/06 20:51</i>
	<i>Pyrene-d10</i>		<i>88.8%</i>	<i>41-152%</i>		<i>"</i>						<i>"</i>
	<i>Benzo (a) pyrene-d12</i>		<i>103%</i>	<i>36-145%</i>		<i>"</i>						<i>"</i>

Darrell W. Auvil

Darrell Auvil, Project Manager

EnviroLogic Resources, Inc. P.O. Box 80762 Portland, OR 97280-0762	Project Name: Soil Stockpile Removal Project Number: 1007.022 Project Manager: Tom Calabrese	Report Created: 09/29/06 14:22
---	---	-----------------------------------

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results
TestAmerica - Portland, OR

QC Batch: 6090538 Soil Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Duplicate (6090538-DUP1)			QC Source: PPI0328-01				Extracted: 09/14/06 08:55					
% Solids	NCA SOP	91.6	---	0.00	% by Weight	1x	91.2	--	--	--	0.438%(20)	09/14/06 08:55

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell W. Auvil

Darrell Auvil, Project Manager



EnviroLogic Resources, Inc.

P.O. Box 80762
Portland, OR 97280-0762

Project Name: **Soil Stockpile Removal**

Project Number: 1007.022

Project Manager: Tom Calabrese

Report Created:
09/29/06 14:22

Notes and Definitions

Report Specific Notes:

- D-16 - Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.
- Q-14 - The matrix spike recovery, and/or RPD, for this QC sample is outside of control limits due to a non-homogeneous sample matrix.
- Q-32 - No results were reported for the MS and or MSD. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit.
- R-03 - The reporting limit for this analyte was raised due to matrix interference.
- R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

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.



Darrell Auvil, Project Manager





Test America
Bvtn, OR

Environmental Sciences, Inc.

Report Number: PR10328

Research & Laboratory Services

CHAIN OF CUSTODY

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

PROJECT # 10077.022	PROJECT NAME / SITE 10077.022 / Soil Stockpile	STATE AAW	PURCHASE ORDER # 10077.002		
COMPANY ENVIROLOGIC RESOURCES	REPORT ATTENTION Removal	PHONE NUMBER 503-860-9967	FAX NUMBER 503-768-5121		
SAMPLES COLLECTED BY J. Howard	DATE(S) COLLECTED 7/6	TIME(S) COLLECTED 10:05A -	SAMPLES CHILLED TO 4° C? Y		
PRESERVATIVE USED? (HCl, etc.) N/A			Regular <input type="checkbox"/>	3-5 Days <input type="checkbox"/>	
FIELD ID	MEDIA	CONTAINER	VOLUME ETC	ANALYSIS REQUIRED	LAB ID
FMNBP-SS-1 10:05A	SOIL	(802) Sorc JAR	802	NWTPH G _x , NWTPH D _x , RBDM ^{8260B} VOCs, RBDM ^{8270S_m} PAHs	
FMNBP-SS-2 10:15A	II	II	II	II	DO SAMPLE
FMNBP-SS-3 10:45A	II	II	II	II	
FMNBP-SS-4 2:05P	II	II	II	II	
FMNBP-SS-5 2:20P	II	II	II	II	
RELINQUISHED BY Jason C Howard		DATE / TIME 7/8/06 2:30P	RECEIVED BY [Signature]		DATE / TIME 09/08/06 1430
RELINQUISHED BY		DATE / TIME	RECEIVED BY LAB		DATE / TIME

Submission of samples with testing requirements to WyEast Environmental Sciences will be understood to be an agreement for services in accordance with the conditions listed on the back of the client copy

3.8°C

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: _____ Logged-in By: _____ Unpacked/Labeled By: _____ Cooler ID: 272 (1 of 1)
(applies to temp. at receipt)

Date: 09/28/06 Date: 9/11 Date: 9/11 Work Order No. PPI0328
 Time: 1430 Initials: CE Initials: CE Client: ENVIROLOGIC
 Initials: DKM Project: _____

Container Type: _____ COC Seals: _____ Packing Material: _____
 Cooler _____ Ship. Container _____ Sign By _____
 Box _____ On Bottles _____ Date _____
 None/Other _____ None _____
 Bubble Bags _____ Styrofoam _____
 Foam Packs _____
 None/Other Other _____

Refrigerant: _____ Received Via: Bill# _____
 Gel Ice Pack _____ None _____
 Loose Ice _____
 None/Other _____
 Fed Ex Client _____
 UPS _____ NCA Courier _____
 DHL _____ Mid Valley _____
 Senvoy _____ TDP _____
 GS _____ Other _____

Cooler Temperature (IR): 38 °C Plastic Glass (Frozen filters, Tedlars and aqueous Metals exempt)
(circle one)

Temperature Blank? _____ °C or NA Trip Blank? Y or N or NA

Sample Containers: _____ ID _____
 Intact? Y or N _____ Metals Preserved? Y or N or NA
 Provided by NCA? Y or N _____ Client QAPP Preserved? Y or N or NA
 Correct Type? Y or N _____ Adequate Volume? Y or N _____
(for tests requested)
 #Containers match COC? Y or N _____ Water VOAs: Headspace? Y or N or NA
 IDs/time/date match COC? Y or N _____ Comments: _____
 Hold Times in hold? Y or N _____

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments, Problems _____

Total access set up? _____ Y or N
 Has client been contacted regarding non-conformances? _____ Y or N If Y, _____ / _____
Date Time

PM Initials: _____ Date: _____ Time: _____

APPENDIX C

DISPOSAL PERMIT / SHIPPING PAPERS

NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

2385 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 9862

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS
This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated 2/04


GENERATOR: WIDE PRP GROUP **EXPIRES: 9/12/06**

DESCRIPTION: PCS - DIESEL		TONS: 300
<input type="checkbox"/> SPECIAL WASTE	<input checked="" type="checkbox"/> CS	<input type="checkbox"/> C&D <input type="checkbox"/> CLEAN-UP
LOCATION: ASTORIA, OREGON PORT OF ASTORIA		COUNTY: Clatsop - north MEYO
CONTACT: BEN PARTRIDGE		PHONE: 360-423-6216 FAX: 360-423-3409

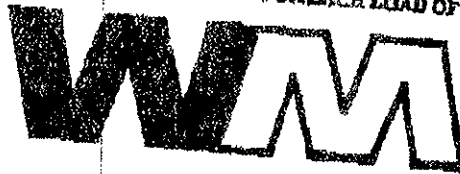
BILLING: Lump sum account	COMMENTS: CLEAN SWEEP	PO#: N/A	JOB#: N/A
<i>We accept business checks, cash, VISA / Mastercard or charge (with prior approval)</i>			

SPECIAL HANDLING: NONE.

NCK TYT

APPROVED:  **KRISTIN CASTNER** **DATE: 06/13/06 2:16:06 PM**

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER
THERE IS A MINIMUM CHARGE OF \$50-\$60 FOR EACH LOAD OF SPECIAL WASTE



WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

115107



55 International Way
Longview, WA 98632
Office: (360) 423-8318
Fax: (360) 423-3409
24-Hours: 1-888-423-9310
WWW.PNECORP.COM

B.O.L. / FREIGHT BILL

ALL ABOUT
Sullivan

Enviro Logic Resources
PO Box 80762
Portland OR
97280-1762

DATE

STATEMENT

PLEASE PAY LAST AMOUNT IN BALANCE COLUMN

Combination Bill of Lading and Freight Bill

Generation: Astorian Waste PRP Group
Receiving Facility: Hill & Gross Landfill Inc
Operator: Big River Ecological W.O.#: 98007 Unit #: 38/T3

Received by (TSD): *[Signature]*

Customer warrants that the waste material being transferred by the above collector does not contain any contaminants including, without limitations; pesticides, chlorinated solvents at concentrations greater than 1,000 PPM, PCB's at greater concentrations than 2 PPM (or PPM with manifest), or any other material classified as hazardous by 40 CFR part 261, customer subparts C and D (implementing the Federal Resource Conservation and Recovery Act, or by any equivalent state hazardous waste or hazardous substance classification program). Should laboratory tests find this waste product not in compliance with 40 CFR part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signature X *[Signature]*
For the Astorian Waste PRP group

Date 9/1/06

QUANTITY	DESCRIPTION	CHARGES	BALANCE
21 yds	W/ Regulated Polychlorinated Solid Waste		
		SUBTOTAL	
		TAX	
		TOTAL	

A FINANCE CHARGE OF 1.5% per month may be applied to any past due amount. Past due accounts may be placed on C.O.D. without notification. If outside collection action is necessary, purchaser shall pay all costs of collection including reasonable attorney's fees.



55 International Way
 Longview, WA 98632
 Office: (360) 423-8316
 Fax: (360) 423-3403
 24-Hours: 1-888-423-6316
 WWW.PNECORP.COM

B.O.L. / FREIGHT BILL

115106

ALL ABOUT
(Handwritten signature)

Enviro Logic Resources Inc PO Box 80762 Portland OR 97286-1762

DATE

STATEMENT

PLEASE PAY LAST AMOUNT IN BALANCE COLUMN

Combination Bill of Lading and Freight Bill

Generator: Astoria Waste PRP Group

Receiving Facility: Hillgrove Landfill Inc

Operator: Big River Excavation W.O.#: 96057 Unit #: 32 / T45 Received by (TSDF): *(Signature)*

Customer warrants that the waste material being transferred by the above collector does not contain any contaminants including, without limitations; pesticides, chlorinated solvents at concentrations greater than 1,000 PPM, PCB's at greater concentrations than 2 PPM (or PPM with manifest), or any other material classified as hazardous by 40 CFR part 261, customer subparts C and D (implementing the Federal Resource Conservation and Recovery Act, or by any equivalent state hazardous waste or hazardous substance classification program). Should laboratory tests find this waste product not in compliance with 40 CFR part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signature X: *(Signature)*

For the Astoria Waste PRP Group

Date _____

QUANTITY	DESCRIPTION	CHARGES	BALANCE
21 Yards	New Regulated Petroleum Contaminated Soil NOS		
		SUBTOTAL	
		TAX	
		TOTAL	

Thank You for your Business!!!

A FINANCE CHARGE OF 1.5% per month may be applied to any past due amount. Past due accounts may be placed on C.O.D. without notification. If outside collection action is necessary, purchaser shall pay all costs of collection including reasonable attorney's fees.



55 International Way
Longview, WA 98802
Office: (360) 423-8918
Fax: (360) 423-3400
24-Hours: 1-888-423-6316
WWW.PINECORP.COM

B.O.L. / FREIGHT BILL

115097

ALL ABOUT
Solutions

Enviro Logic Resources
P.O. Box 80762
Portland, OR
97280-1762

DATE
STATEMENT

PLEASE PAY LAST AMOUNT IN BALANCE COLUMN

Combination Bill of Lading and Freight Bill

Generator: Astoria Area -wide PRP Group

Receiving Facility: Hills Bros Landfill Inc.

Operator: *Finsdon & Son* W.O.#: *92007* Unit #: Received by (TSD): *John Bente*

Truck # *PUP 2*
Customer warrants that the waste material being transferred by the above collector does not contain any contaminants including, without limitations; pesticides, chlorinated solvents at concentrations greater than 1,000 PPM, PCB's at greater concentrations than 2 PPM (or PPM with manifest), or any other material classified as hazardous by 40 CFR part 261, customer subparts C and D (implementing the Federal Resource Conservation and Recovery Act, or by any equivalent state hazardous waste or hazardous substance classification program). Should laboratory tests find this waste product not in compliance with 40 CFR part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signature X *[Signature]* Date *9/2/06*
FOR ASTORIA AREA WIDE PRP GROUP

QUANTITY	DESCRIPTION	CHARGES	BALANCE
<i>20 yards</i>	<i>Non-Regulated Petroleum Contaminated Soil</i>		
		SUBTOTAL	
		TAX	
		TOTAL	

*Thank You
for Your Business!!!*

A FINANCE CHARGE OF 1.5% per month may be applied to any past due amount. Past due accounts may be placed on C.O.D. without notification. If outside collection action is necessary, purchaser shall pay all costs of collection including reasonable attorney's fees.

115094



55 International Way
Longview, WA 98632
Office: (360) 423-8318
Fax: (360) 423-8409
24-Hours: 1-888-423-8218
www.pnecorp.com

B.O.L. / FREIGHT BILL

Solutions
ALL ABOUT

EMERGO - Logic Resources
P.O. Box 80762
Portland OR
97280-1762

DATE
STATEMENT

PLEASE PAY LAST AMOUNT IN BALANCE COLUMN

Combination Bill of Lading and Freight Bill

Generator: Astoria Area-wide PRP Group
Receiving Facility: Hillsboro Landfill Inc.
Operator: Lisa Hock & Son W.O.#: 66-01 Unit #: 96007 Received by (TSD): Jennifer Ren
Truck # 4 Pulp 2

Customer warrants that the waste material being transferred by the above collector does not contain any contaminants including, without limitations; pesticides, chlorinated solvents at concentrations greater than 1,000 PPM, PCB's at greater concentrations than 2 PPM (or PPM with manifest), or any other material classified as hazardous by 40 CFR part 261, customer subparts C and D (implementing the Federal Resource Conservation and Recovery Act, or by any equivalent state hazardous waste or hazardous substance classification program). Should laboratory tests find this waste product not in compliance with 40 CFR part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signature X KR Date 9-7-06
FOR ASTORIA AREA-WIDE PRP GROUP

QUANTITY	DESCRIPTION	CHARGES	BALANCE
20 YARD	Non-Regulated Protocol Contaminated Soil		
		SUBTOTAL	
		TAX	
		TOTAL	

*Thank You
for your Business!!!*

A FINANCE CHARGE OF 1.5% per month may be applied to any past due amount. Past due accounts may be placed on C.O.D. without notification. If outside collection action is necessary, purchaser shall pay all costs of collection including reasonable attorney's fees.

APPENDIX D

CONTRACTOR'S HEALTH & SAFETY PLAN / SAFETY MEETING SIGNATURE PAGES

**HEALTH AND SAFETY PLAN
FOR ACTIVITIES AT THE PNE CORP. JOB SITE
– OPERATIONS FROM THE PROJECT AT

ASTORIA AREA WIDE/MOBIL-NIEMI OIL
BULK PLANT
CORNER OF HAMBERG & PORTWAY
ASTORIA OR. 97103**

PNE CORP.

Prepared by:

PNE Corp. 1081 Columbia Blvd.
Longview, WA 98632, 360-703-0444

Site-Specific Health and Safety Plan

1.0 HEALTH AND SAFETY PLAN DESCRIPTION

The purpose of this Health and Safety Plan (HASP) is to establish personnel protection standards, specify safe operating procedures, and provide for contingencies that may arise during all work operations at the site at Corner of Hamburg and Portway, Astoria or. 97103 .

This HASP has been developed in accordance with the requirements set forth in OSHA. Additional aspects of construction safety are presented in the PNE Corp. Health and Safety Plan as adopted by PNE Corp. corporate officers.

2.0 PROJECT DESCRIPTION

2.1 General

Plant/Facility Description:

Astoria Area Wide- MOBIL- Niemi bulk Plant

Project/Site History:

Fuel oil bulk plant

2.2 Nature of Activity

PreRI

RI

Remediation

Other

Demolition

Project Name:

ASTORIA AREA WIDE –MOBIL-NIEMI BULK PLANT

Project Manager:

Bob Matson

PNE Corp. Safety Manager

Matt Brenes

3.0 SCOPE OF WORK

A description of the scope of work covered by this Health & Safety Plan is as follows:

- Site Demolition. Remove concrete tank bottoms, concrete vaults, piping and, other structures specified by Envirollogic.

4.0 HAZARD EVALUATION

4.1 Chemical Hazards

No contact anticipated; the sight is contaminated below the surface with hydrocarbons, primarily diesel and gasoline, both leaded and unleaded. See Envirolgics Hasp for a more detailed analysis of these products

4.2 Physical Hazards

Procedures to be used to monitor/reduce these hazards will include the following:

- ❑ **Slip/trip/fall:** Good housekeeping practices should be employed to prevent slip/trip/fall hazards. Caution must be employed when walking to prevent slip/trip/fall hazards caused by terrain. Due to the activities being performed on this project, particular attention must be given to the site's walking/working surfaces. Protruding debris, cords, trenches, and equipment are just some of the items that may create hazards for the site's walking and working surfaces.
- ❑ **Vehicle traffic:** Use barricades, traffic cones or other appropriate measures to control vehicle traffic through the work area.
- ❑ **Heavy Equipment and Motorized Vehicles:** Contact with heavy equipment and/or motorized vehicles could result in serious injury or death to workers. All workers will be alerted to the potential for accidents. Workers shall be aware of the location of vehicles and heavy equipment. All heavy equipment must comply with applicable federal and state regulations, including guards, lockouts, standard operating procedures and operator training. Vehicles will be inspected daily by a qualified operator. All workers shall be alerted to the potential of trauma from moving parts on equipment. Workers will be instructed to avoid wearing loose clothing to reduce the potential for hands and arms to be pulled into moving parts.
- ❑ **Noise:** Operation of equipment and tools may create situations where personnel may be exposed to levels of noise in excess of 85 decibels during a full eight-hour work shift. It is not anticipated that workers will be exposed above permissible limits; however, workers will wear hearing protection when using mechanized equipment.
- ❑ **Lifting:** The potential for personnel to engage in heavy lifting of tools, supplies, or debris is limited for this project; however, back injuries and other lifting-associated injuries are a concern for on-site personnel. Workers will lift heavy items properly and with sufficient help from co-workers.

4.3 Biological Hazards

None anticipated.

4.4 Confined Space Entry

Not required

5.0 WORKER PROTECTION

The levels of personal protection are selected by evaluating the performance characteristics of the clothing against the requirements and limitations of the site- and task-specific conditions. It is anticipated at this time that respiratory protection will not be required during the extended activities being performed by PNE Corp. or its subcontractors.

5.1 Level of Protection

The specific PPE listed for each level of protection was selected based on exposure potential. The levels of protection to be used during entry activities are as follows:

Level D

- Safety vest
- Hardhats
- Leather work boots
- Safety glasses and face shield (when cutting)

Note: If hydrocarbons are detected in the work area this level of protection will be upgraded.

6.0 AIR/WORKPLACE MONITORING

6.1 Real-time Monitoring

No Yes Optional

6.2 Personal Air Sampling

No Yes

6.3 Noise Monitoring

No Yes

Noise monitoring will not be conducted. However, whenever individuals must raise their voices to communicate at a distance of three feet or less and when operating heavy equipment, hearing protection is required during that task.

6.4 Heat/Cold Stress Monitoring

No Yes

Heat or cold stress monitoring is not required due to mild climatic conditions. Workers will be aware of the symptoms of heat stress. Workers will drink fluids rich in electrolytes and practice proper personal hygiene.

7.0 PERSONNEL TRAINING/ASSIGNMENT OF RESPONSIBILITIES

PNE Corp. employees and subcontractor employees involved in work activities on site should attend an initial HASP review prior to initiating field activities. Visitors to the work area will be required to attend a site safety briefing.

7.1 Initial Site Briefing

PNE Corp. site employees and subcontract employees will attend an initial HASP review prior to initiating field activities. This review will include the following:

Project Personnel Roles and Responsibilities

Personnel will understand the lines of authority regarding health and safety and site personnel roles and responsibilities.

Site-specific Health and Safety Hazards

Personnel will be informed of specific hazards related to the site and site operations.

Personal Protective Equipment

Personnel will be trained in the proper use of the PPE required for this project.

Safe Work Practices/Engineering Controls

Personnel will be informed of appropriate work practices and engineering controls that will reduce risk of site hazards.

Communication Methods

Personnel will be informed of means for normal site and emergency communication.

Air Monitoring

A PID and a 4 gas monitor will be on sight for use as needed.

Medical Surveillance Program

Not applicable

Site Control Methods

Personnel will understand site methods used to reduce exposure to on- and off-site personnel.

Decontamination Procedures

All decon equipment for petroleum products will be available on-sight to be used if needed.

Emergency Response

Personnel will be trained to respond properly in the event of an emergency.

7.2 Daily Briefings

All PNE Corp. site personnel will attend a daily briefing to participate in the in-field activities for that day. The briefings will be documented and included in personnel training files and the site safety log.

7.3 Assignment of Responsibilities

The PNE Corp. Health and Safety Manager, or designated individual (PNE Corp. Superintendent), will have the authority and knowledge necessary to implement the Site Health and Safety Plan and verify compliance with the applicable regulations. Questions regarding this Site Health and Safety Plan may be forwarded to Mr. Matt Brenes at PNE Corp. Inc. at (360) 703-0444.

Duties of the Site Safety Officer include:

- Coordinate development of Site Health and Safety Plan.
- Respond to field requests for assistance in safety and health.
- Provide assistance to PNE Corp. contractors in conducting training of site workers, hazard communication, and other assistance as required.
- Ensure employer's responsibilities for safety and health are being implemented through daily inspections.
- Implement Site Safety and Health requirements in the field.
- Record any variances in conditions.
- Record any illness, disease, injury, pulmonary disorder, or death of any person on the site.
- Communicate requirements to field personnel and subcontractors.
- Perform safety record keeping.
- Verify that medical monitoring and training has been performed.

Health and safety responsibilities of the Site Workers include:

- Read and follow the Site Health and Safety Plan.
- Check all personal safety equipment to ensure it is in good working condition prior to entering the exclusion zone.
- Immediately report any accidents/illness, spills, unsafe conditions, any unusual smells or chemical smell to the Site Safety Officer.
- Incidents must be reported in detail on a daily basis for spills or accidents.

8.0 MEDICAL MONITORING

Not required for this job.

9.0 SITE CONTROL

PNE Corp. employees and subcontractor employees will follow site control measures designated by PNE Corp. These controls are as follows:

- Only authorized, trained personnel are allowed to enter the job site.

- The facility is not a controlled site (e.g., no guarded-entry gate). Temporary fencing and banner guard shall be installed and all personnel shall only use recognized entry and exit points.
- Communications on site will be conducted orally. Hand signals will be used when parties are not within speaking distance.
- The buddy system will be employed to the extent feasible to assist in event of an emergency
- Toilet facilities and adequate washing facilities will be within a reasonable distance from site activities.
- Charged and inspected fire extinguishers will be available on site.
- A first aid box and eye wash station will be kept on site.

10.0 DECONTAMINATION

All personnel shall wash their hands prior to eating or drinking after working on site.

11.0 EMERGENCY CONTINGENCY PLAN

11.1 Emergency Phone Numbers

Contact	Name	Number
Police/Security	Police Department	911
Fire and Ambulance	Fire Department	911
Hospital: Name: Address:	Columbia Memorial Hospital 2111 Exchange st Astoria Or 2111 Exchange Street Astoria or	503-325-4321
Site Safety Officer	Matt Brenes	360-957-2221
Alternate Site Safety Officer	Mike Sasso	360 957 2195
Project Manager	Bon Matson	360-957-2015
Site/Client Contact	Jason Howard	503-860-9967
Regulatory Agency	Oregon Occupational Safety & Health Division (OSHA) OR-OSHA	503-378-3272

The evacuation route, assembly area, and alarm system will be identified by the site supervisor/SSO prior to onset of field activities and reviewed with all field personnel.

Directions to the hospital:

- Turn left on to marine drive thru down town astoria
- Turn RIGHT on 19th just past swimming pool
- Across street, emergency door on left
- 1.5 miles

11.2 Notification Procedure

In the event of an incident, the site supervisor or SSO will contact the following people:

	Name	Work
<i>Initial</i>	Matt Brenes	360-957-2221
<i>Back-up</i>		

Note: Administrative managers must be notified in the event of an unexpected occurrence or incident.

Appendix A provides injury and incident initial reporting forms. This information will be required when phoning or faxing the initial report to the health and safety manager.

11.3 Injury Response

In the event a person becomes ill or injured, the project manager will:

- Ensure that all equipment has been shut off.
- Assess the nature of the injury.
- Phone 911 for emergency assistance if needed.
- Administer first aid (if certified to do so).
- Meet the emergency crew.
- Contact Jason Howard Astoria area Wide PRP Group Representative
- Begin injury investigation.

11.4 Fire/Explosion Response

In the event of a fire or explosion:

- Ensure that all equipment is shut off.
- Phone 911 for emergency assistance.
- Rally at designated location and take head count.
- Secure the area until emergency assistance arrives.
- Meet emergency crew and advise fire chief of location and nature of the situation.
- Contact Jason Howard Astoria Area Wide PRP Group representative.

11.5 Spill/Release Response

In the event of a spill or leak:

- Ensure that all equipment is shut off.
- Sound emergency alarm or phone 911 for site spill response coordinator.
- Secure the area.
- Locate and stop or contain the spill if it can be done safely (proper PPE must be worn).
- Meet spill response crew and advise them of the location and material that has spilled.
- Contact Jason Howard PRP Astoria Wide Representative.
- Begin investigation.

11.6 Emergency Equipment

- First-aid kit,
- Emergency shower/eyewash,
- Fire extinguisher,

First-aid Locations: All PNE Corp. vehicles

All personnel have been briefed on this site safety plan prior to the commencement of all work activities. This plan shall be available for review by all personnel working on site for PNE Corp.. Changes shall not be made to this plan without the prior approval of the PNE Corp.. Health and Safety Manager.

By signing below, I agree that I have read, understand and agree to abide by all the information set forth in this safety plan.

Project Foreman _____ Date _____

Employee _____ Date _____

Employee _____ Date _____

Employee _____ Date _____

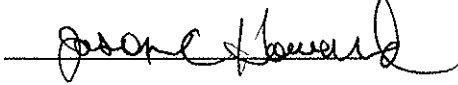
Employee _____ Date _____

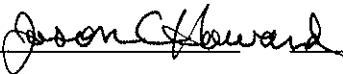


Employee _____ Date _____

ATTACHMENT B-1

HASP ACKNOWLEDGEMENT FORM

The following have read and understand the former Mobil/Niemi Oil bulk plant site health and safety plan and agree to comply with the requirements described within:

POSITION	NAME	SIGNATURE
<i>EnviroLogic Resources, Inc.</i> Project Manager	Thomas J. Calabrese, R.G.	_____
<i>EnviroLogic Resources, Inc.</i> Health and Safety Officer	Thomas J. Calabrese, R.G.	_____
Backup HSO	Jason C. Howard	
Site Specific Backup HSO	PRP Site Representative	_____

REPRESENTING	NAME	SIGNATURE	DATE
<u>ENVIROLOGIC RESOURCES</u>	<u>JASON HOWARD</u>		<u>9/6/06</u>
<u>"</u>	<u>"</u>		<u>9/7/06</u>
<u>"</u>	<u>"</u>		<u>9/8/06</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

ATTACHMENT B-4

TAILGATE SAFETY MEETING FORM

This form is to be used as a guideline for briefing on-site consultant and subcontractor personnel regarding the potential hazards associated with the site. The tailgate safety meeting is a supplement to, and not a replacement for, the site-specific HSP.

Date: 9/6 → 9/8/06 Time: _____ Project No. 10077.022

Client: _____ Site Address: PORT OF ASTORIA - AAW

Safety Topics Presented per HASP FMNBP

Protective Clothing/Equipment: "

Chemical Hazards: "

Physical Hazards: "

Special Equipment: "

Decontamination Procedures: "

Emergency Procedures: "

Additional Information / Comments: "

Meeting Attendance

- | | |
|---|-----------|
| 1. <u>Jason C Howard</u> <u>9/6/06</u> | 7. _____ |
| 2. <u>Jason C Howard</u> <u>9/7/06</u> | 8. _____ |
| 3. <u>Jason C. Howard</u> <u>9/8/06</u> | 9. _____ |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |



SAFETY MEETING REPORT FORM

Emergency Phone #: 911

Job #: 96007

Lead Person: Mike Sasso Date: 9-6-06 Time: 9:55

Job Name: Astoria Area wide - PPE Group Client Contact Name:

Closest Safety Shower: Closest Eye Wash:

- | | | | | |
|--|--|-------------------------------------|--|---|
| <input checked="" type="checkbox"/> Safety Glasses | <input type="checkbox"/> Goggles | <input type="checkbox"/> Green Suit | <input checked="" type="checkbox"/> Steel Toed Boots | <input type="checkbox"/> Buddy System |
| <input type="checkbox"/> Full Face Resp. | <input checked="" type="checkbox"/> Hard Hat | <input type="checkbox"/> Tyvek | <input type="checkbox"/> Steel Toed Shoes | <input checked="" type="checkbox"/> Orange Vest |
| <input type="checkbox"/> Face Shield | <input type="checkbox"/> Gloves | <input type="checkbox"/> Rain Gear | <input checked="" type="checkbox"/> Ear Plugs | <input type="checkbox"/> Slips, Trips, Falls |
| <input type="checkbox"/> Fall Protection | <input type="checkbox"/> Safety "T" | <input type="checkbox"/> LEL | <input checked="" type="checkbox"/> Heavy Equipment | |
| <input type="checkbox"/> Vac Truck/Hydroblast/Pressure Wash Form | <input type="checkbox"/> Confined Space Permit | | | |

Brief Summary of Meeting:
Project PPE and both Enviro Logic + CCS/PNE sight safety plans

PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE
<u>Justin Piper</u>			
<u>Marc Knight</u>			
<u>Ken Poeschl</u>			
<u>Stewart McAllister</u>			
<u>Mike Sasso</u>			

WHITE - OFFICE YELLOW - CUSTOMER

ATTACHMENT B-4 TAILGATE SAFETY MEETING FORM

This form is to be used as a guideline for briefing on-site consultant and subcontractor personnel regarding the potential hazards associated with the site. The tailgate safety meeting is a supplement to, and not a replacement for, the site-specific HSP.

Date: 9/6/06 - 9/7/06 Time: 0730 Project No. 96007

Client: PRP Site Address: Mo

Safety Topics Presented

Protective Clothing/Equipment: See CCS HSP

Chemical Hazards: _____

Physical Hazards: _____

Special Equipment: _____

Decontamination Procedures: _____

Emergency Procedures: _____

Additional Information / Comments: _____

Meeting Attendance

- | | |
|-----------------------|-----------|
| 1. <u>[Signature]</u> | 7. _____ |
| 2. <u>[Signature]</u> | 8. _____ |
| 3. <u>[Signature]</u> | 9. _____ |
| 4. <u>[Signature]</u> | 10. _____ |
| 5. <u>[Signature]</u> | 11. _____ |
| 6. _____ | 12. _____ |