# PHASE-II SUPPLEMENTAL ASSESSMENT

Former Rental Service Corporation Facility 9045 Willows Road NE Redmond, Washington

B & B ALPINE PROPERTIES, LLC.

# ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112<sup>th</sup> Avenue Northeast, Suite 300 Bellevue, Washington 98004 (425) 455-9025 Office (888) 453-5394 Toll Free (425) 455-2316 Fax

July 29, 2015

JN-31187-1

tim@ceetim.com

Mr. Tim Brennan B&B Alpine Properties, LLC. 851 Mission Road Walla Walla, Washington 99362

Subject:

**Phase-II Supplemental Assessment** 

Former Rental Service Corporation Facility

9045 Willows Road NE Redmond, Washington

Dear Mr. Brennan:

The contents of this report are confidential and are intended solely for your use and the use of your representatives. In accordance with your directives, a single electronic copy of this report is being distributed to you. No other distribution or discussion of these findings will take place without your prior approval in writing.

## **Background**

In 1990, three (3) underground storage tanks were removed by others from the subject property. Both soil and groundwater were found to be contaminated by petroleum products at that time. Approximately 70 cubic yards of petroleum contaminated soil was excavated and "land-farmed" onsite. As periodic screening suggested that the land-farmed soil was becoming "clean," it was transported off-site as fill soil. No active remediation of groundwater appears to have occurred, however in 1996, groundwater around the former UST area was reevaluated during an environmental due-diligence investigation by others brought on by a change in corporate ownership of the equipment rental business.

The findings of that study were submitted to the Washington State Department of Ecology (WDOE) and after some internal debate between WDOE staff, the WDOE granted the subject UST facility "no further action" status (NFA) on July 14, 1997.



Associate Offices: Oregon / San Francisco Bay Area

Following the 1990 tank removals, two (2) replacement USTs that contained diesel and unleaded fuel were reportedly installed back into the same excavation. Due to their installation date, those tanks were required to conform to the current UST operating regulations (WAC 173-360). Those two (2) USTs remained on the property until March 2012, at which time both tanks along with the associated product lines and dispensers were permanently decommissioned and removed from the property by the then tenant RSC/Rental Service Corporation.

Prior to the March 2012 tank removals, EAI had been contracted by the property owner (Client) to perform a Phase-II environmental assessment of soil and groundwater at multiple areas (8-locations) around the property as part the Clients' closure of his lease agreement with his tenant (RSC/Rental Service Corporation). At least three (3) of the locations explored were proximal to the on-site UST's and fueling area. That assessment was performed in January 2012, the findings of which were presented in our report to the Client, dated February 1, 2012. That study did not detect any contaminants of interest in soil or groundwater at concentrations above Washington State Department of Ecology target compliance levels for unrestricted land use. There was a slight detection of xylene in a groundwater sample collected off the suspected downgradient (east) side of the fueling area (boring location B2). The concentration of xylene was well below the WDOE target compliance level, however EAI's report provided a cautionary note that this detection could be an indication that some "localized" areas of contaminated soil/groundwater could conceivably exist in closer proximity to the USTs / fueling system components. EAI's report conveyed our understanding that the Client's tenant would be contracting a company to decommission and remove the tanks and fueling system components. Therefore EAI's report recommended that further assessment be performed at the time of the removals.

The Client recently contacted EAI and informed us that the tenant had in fact removed the UST and fueling system components in March 2012. The work was observed by URS, who provided a report to RSC Equipment Rental (Client's tenant), dated April 24, 2012. According to that report, the two double-walled steel tanks and system components were decommissioned and removed without incident. The tanks were described as being in "excellent condition, with no apparent holes or significant corrosion observed."

Confirmation soil samples were collected from six locations around the tank cavity and at two shallow locations below the pump islands / product lines. The shallow soil samples from the pump island/product lines were found to contain benzene at a concentration slightly above the WDOE's target compliance level. According to URS's report, 1 to 2 more feet of soil was excavated from this area and two deeper soil samples were collected. One of those samples, identified as PEX-10 collected at a depth of 2-feet below the ground surface, still contained benzene at a concentration slightly above the WDOE target compliance level. URS opined that this residual exceedance did not warrant any further action. According to the Client (property owner), he released his former tenant from any further obligations, under the presumption that no further action would be required.

It is EAI's understanding that the Client's former tenant (RSC Equipment Rental) submitted URS's report to the WDOE in July 2012. Although URS had opined that the single remaining detection of benzene in the one soil sample did not warrant further action, it would appear that the WDOE did not agree. The WDOE "reopened" their file on the site and sent an Early Notice Letter to RSC Equipment Rental, which informs the potentially responsible party that the site had been added to the WDOE's list of confirmed or suspected contaminated sites list (CSCSL). Neither the former tenant nor the WDOE provided the Client with a copy of the 2012 Early Notice Letter. We understand that the Client recently discovered that the WDOE had reopened their file and contacted the WDOE, who apparently apologized for not including the property owner in the 2012 Early Notice notification, and issued a new Early Notice Letter addressed to the Client on May 19, 2015.

The Client subsequently contacted EAI to seek advice as to options for addressing the WDOE's concerns. Acknowledging that over 3-years have passed since URS's assessment and that benzene is a fairly volatile organic compound, which can degrade or dissipate over time, and considering that the former UST removal excavation was likely open to the atmosphere for several days, it is conceivable that residual impairment of benzene in soil may have naturally attenuated with the passage of time. As a first step in seeking renewed WDOE regulatory closure at this Site, EAI recommended revisiting the site to drill and collect several soil samples from the approximate area of the former pump islands / product lines where the benzene had been detected, to assess the current environmental conditions. During a recent meeting with the Client and the WDOE, the WDOE further advised including additional sampling and testing of groundwater and requested that the Client enter the site into the Voluntary Cleanup Program (VCP).

On July 7, 2015 EAI submitted the VCP application packet to the WDOE and on July 17, 2015, the WDOE accepted the property into the VCP.

Select tables and figures from EAI's and URS's 2012 reports are included in Appendix-A.

## **Subsurface Exploration**

On July 20, 2015, EAI observed the drilling of four (4) borings designated as B9 through B12 as depicted on Plate 2, Exploration Plan. These boring numbers were selected as a continuation of EAI's prior 2012 boring number scheme which had included borings B1 through B8 as noted on EAI's site plan contained in Appendix-A. Borings B9 through B11 were placed within and proximal to the deduced former location of the pump island, where URS's 2012 confirmation soil sampling suggested that benzene had still been present in shallow soil. Boring B11 was interpreted to coincide with the former location of the dispenser pump, while B9 and B10 were positioned off the inferred down-gradient and cross-gradient end/side of the former pump island. EAI's boring B12 was placed a few feet to the northwest of the pump island borings as a means to collect a groundwater sample proximal to and down-gradient from the former pump island area.

The current borings were completed with a truck-mounted direct-push, drill rig, operated by ESN-Northwest. At each boring location, soil cores were collected in 2 or 4-foot sections from the ground surface to the maximum depth explored, which was 8-feet below the ground surface. Upon recovery, each core was opened and examined. Representative soil samples were collected from each core following EPA methodology 5035-A (WDOE Memorandum #5), a protocol that is intended to reduce the potential for loss of volatile organic compounds (VOCs).

At boring location B12, a temporary well screen was inserted over a depth interval from 5 to 9 feet below the ground surface. Groundwater was encountered at approximately 6 feet below the ground surface. A peristaltic pump was then used to recover a groundwater sample, which was pumped directly into laboratory-prepared glassware.

# **Subsurface Conditions and Soil Sample Selection**

Subsurface soils consisted of an upper 2-foot layer of sand and gravel fill. Underlying the fill, native soils appeared to consist of an organic, sandy-silt and silty-sands. As noted above, shallow groundwater was generally encountered at a depth of approximately 6 feet below the ground surface. Based upon local topography, groundwater flow at the site is suspected to locally be toward the northeast. Regionally, unconfined groundwater flow is suspected to be northerly following the trend of Sammamish River Valley drainage, as depicted on Plate 1, Vicinity Map.

During soil sample collection, a portion of each sample was temporarily sealed in plastic zip-lock bags. After a brief period, a photo-ionization detector (PID) was used to sample the "headspace" within each sealed bag. The concentration of any volatile organic compounds VOCs detected in the headspace by the PID is also included in the boring logs in Appendix-B.

At all three <u>soil</u> boring locations (B9 through B10), the highest PID reading were noted in soil samples recovered from approximately 3.5 to 4.5 feet below the ground surface. A slight petroleum-like odor was also associated with the soil samples recovered from this interval. PID readings associated with soils above and below this interval were significantly reduced and did not exhibit a pronounced hydrocarbon odor. Based upon these field observations, EAI selected soil samples from the approximate 4-foot depth along with the next deeper soil samples from approximately 6 feet for laboratory analysis. The recovered groundwater sample from B12 was also selected for analysis.

# **Laboratory Analysis & Results**

The six (6) selected soil samples and the one (1) recovered groundwater sample were submitted to the project laboratory to be analyzed for gasoline range petroleum hydrocarbons by Washington State test method NWTPH-G and for BTEX compounds (benzene, toluene, ethylbenzene, and xylene) by EPA Method 8260.

The laboratory results are summarized in Tables 1 and 2 and further discussed below. A copy of the laboratory report is included in Appendix-C.

#### Soil

As presented in Table 1, the soil samples from the 4-foot depth interval in borings B9, B10, and B11 all contained concentrations of total petroleum hydrocarbons as gasoline (TPH-G), which ranged between 37 and 80 parts per million (ppm). TPH-G was not detected above laboratory minimum reporting limits for any of the deeper soil samples from 6-feet. The highest concentration of TPH-G was found in the 4-foot soil sample from B11, which was interpreted to have been collected directly below the former location of the dispenser pump. This finding appears to validate the placement of the soil borings as being "on target" in regard to the deduced location of the former pump island.

BTEX compounds were not detected in any of the soil samples submitted for analysis. With no detections of benzene or other BTEX compounds, the applicable WDOE target compliance level for TPH-G in soil is 100 ppm; Therefore all of the soil samples analyzed were <u>in compliance</u> with the WDOE's levels for unrestricted land use.

### **Groundwater**

As summarized in Table 2, the groundwater sample recovered from B12 did not contain TPH-G or BTEX compounds at concentrations above the laboratory's minium reporting limits (i.e. the groundwater at B12 is <u>in compliance</u> with the WDOE's target levels for unrestricted land use).

#### **Conclusions**

The stated goals for this supplement study as presented in EAI's proposal dated July 8th, 2015 have been fulfilled. Relying upon the soil and groundwater findings developed to date, it would appear that soil and groundwater proximal to the former pump island area are presently in compliance with the WDOE's target levels for unrestricted land use. The lingering presence of benzene in shallow soil below the former dispenser reported by URS in 2012 appears to have been of de minimus extent and/or has since attenuated through natural degradation.

Taking into consideration the totality of the findings of EAI and others to date, it appears reasonable to conclude that no further action (NFA) is presently warranted.

#### Limitations

This report has been prepared for the exclusive use of B and B Alpine Properties, LLC., and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated July 8, 2015. The opinions expressed in this report are based upon interpretations, observations and testing made at a separated locations and conditions may vary between those sampling localities or at other locations, depths, and/or media. EAI makes no warranty as to the accuracy or reliability of data / opinions provided/rendered by other parties. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this interim document and to provide amendments as required.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,

ENVIRONMENTAL ASSOCIATES, INC.

Robert B. Roe, M.Sc., LHG.

Senior Hydrogeologist

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ROBERT B. ROE

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TABLE 1 - Petroleum Hydrocarbons - Soil Sampling Results
All results and limits in parts per million (ppm)

Boring / Sample Name	Gasoline (TPH)	Benzene	Toluene	Ethylbenzene	Total Xylenes
B9-4	41	< 0.02	< 0.05	< 0.05	< 0.15
B9-6	<10	< 0.02	< 0.05	< 0.05	< 0.15
B10-4	37	< 0.02	< 0.05	< 0.05	< 0.15
B10-6	<10	< 0.02	< 0.05	< 0.05	< 0.15
B11-4	80	< 0.02	< 0.05	< 0.05	< 0.15
B11-6	<10	< 0.02	< 0.05	< 0.05	< 0.15
Reporting Limit <sup>3</sup>	10	0.02	0.05	0.05	0.15
WDOE Compliance Levels 4	100 5	0.03	7	6	9

#### Notes:

- 1 "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "---" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A soil cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
- 5- The MTCA gasoline TPH cleanup level is 100 ppm for soils with no benzene and less than 20% aromatic hydrocarbons between C8 and C16. Otherwise, the cleanup level is 30 ppm.

Bold and Italics denotes concentrations above MTCA Method A soil cleanup levels.

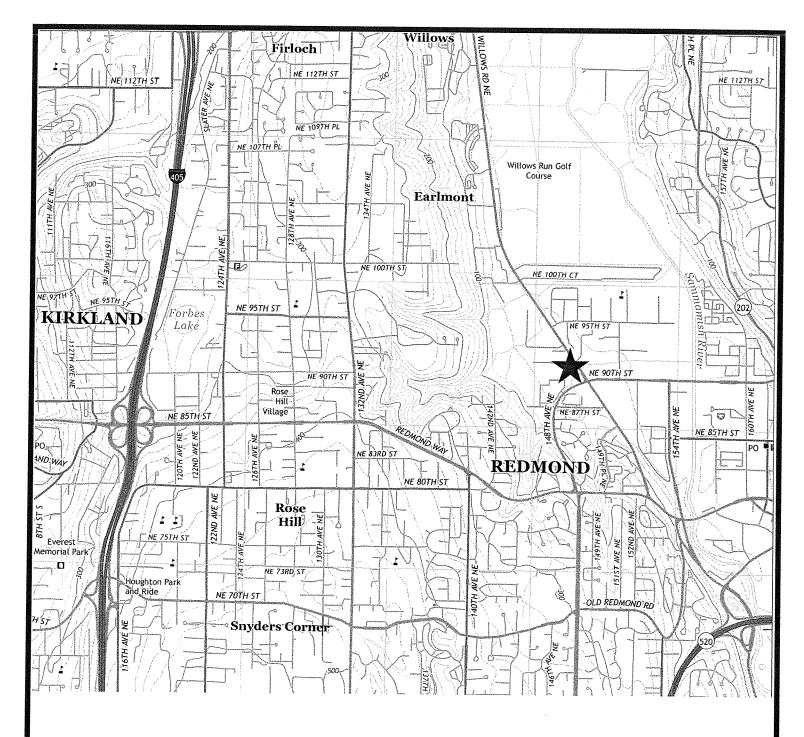
# TABLE 2 - Petroleum Hydrocarbons - Groundwater Sampling Results All results and limits in parts per billion (ppb)

Boring / Sample Name	Gasoline (TPH)	Benzene	Toluene	Ethylbenzene	Total Xylenes
B12	<100	<1	<1	<1	<3
Reporting Limit <sup>3</sup>	100	1	1	1	3
MTCA-Method-A Cleanup Levels <sup>4</sup>	800 <sup>(4)</sup>	5	1,000	700	1,000

#### Notes:

- 1 "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC. The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.

Bold and Italics denotes concentrations above existing or proposed MTCA Method A groundwater cleanup levels.





Approximate property location.



Inferred groundwater flow direction based on the local topographic gradient.





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# Vicinity/Topographic Map

Former Rental Service Corp Facility 9045 Willows Road NE Redmond, Washington 98052

Job Number: JN-31187-1

Date:

**July 2015** 

Plate:

1



Parcel Boundary

B12 (groundwater)

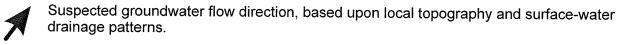
Former | B11 | Former | B11 | Former |

**B10** 

Former pump island & approximate location of URS's soil samples PEX-8 & PEX-10, where benzene had been detected in shallow soil in March 2012.

Building

- Temporary borings to re-test soil for gasoline/benzene, made by EAI in July 2015.
- Temporary boring to re-test groundwater for gasoline/benzene at a location both proximal too and inferred down-gradient from the former fuel dispenser area.







# **ENVIRONMENTAL**

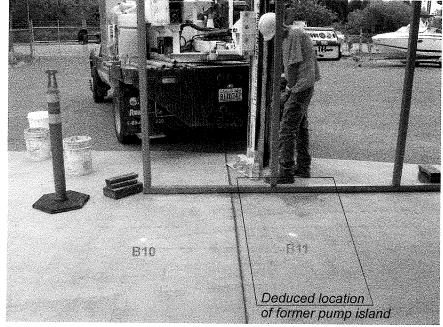
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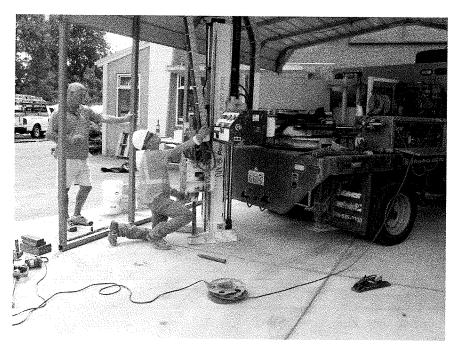
# **EXPLORATION PLAN**

Former Rental Service Corp Facility 9045 Willows Road NE Redmond, Washington 98052

Job Number:	Date:	Scale:	Plate:
JN-31187-1	July 2015	1"=20'	2



Drilling boring B9. Locations B10 and B11 are also visible in the photograph.



Drilling boring B11.



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# SITE PHOTOGRAPHS

Former Rental Service Corp Facility 9045 Willows Road NE Redmond, Washington 98052

Job Number:

Date:

JN-31187-1

Plate:

**July 2015** 

3

# **ATTACHMENT-A**

**Prior Report Excerpts** 

B&B Alpine Properties

TAB	TABLE 1 - Petrole All results	um Hydroca and limits in	Petroleum Hydrocarbons - Soil Sampling Results results and limits in parts per million (ppm)	Sampling lion (ppm	Results (1)		
Strataprobe Boring & Sample Depth Interval	Gasoline (TPH)	Diesel (TPH)	Heavy Oil (TPH)	Benzene	Toluene	Ethylbenzene	Total
B1-4		CONTROL CONTRO	TO STATE OF THE PERSON NAMED AND PARTY OF THE PERSON NAMED AND PAR	CONTRACTOR AND ADDRESS OF THE PROPERTY OF THE			Xylenes
R7_A	01/	000	<100	<0.02	<0.05	<0.05	<0.15
1.70	010	<50	001>	<0.02	<0.05<	3000	
B3-4	0I>	Q.₹0	207			60,02	cl.0>
B4-4	V 1 7		2100	<0.02	<0.05	<0.05	<0.15
7 30	01>	<50	<100	<0.02	<0.05	<0.05	<0.15
4-CQ	<10	<50	<100	CO 0>	200/		61.0
B6-2	<10	<50	7100	70:02	<0.05	<0.05	<0.15
B7-2	<10	05>	001	<0.02	<0.05	<0.05	<0.15
B8-2		000	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	<0.02	<0.05	<0.05	<0.15
			<100	<0.02	<0.05	<0.05	<0.15
Who was a second control of the second contr	<10	<50	<100	0.02	0.05	0.05	0.15
Notes:	30 or 100 °	2000	2000	0.03	7	9	0
				-		•	`

1. "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Method A soil cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
5- The MTCA gasoline TPH cleanup level is 30 ppm for soils with benzene otherwise it is 100 ppm.

TABLE 2 - Petroleum Hydrocarbons - Groundwater Sampling Results All results and limits in parts per billion (ppb)

Strataprobe Boring		į		The section of the se	THE RESERVE THE PROPERTY OF THE PARTY OF THE		
	Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethvlhenzene	Total
The state of the s	(TPH)	(TPH)	(TPH)			200	Xvlenes
B1	<100	<250	<500	CONCRIBING THE THROUGH CONCRIBING THE CONCRIBING TH	month of the second of the sec		A S. J. A V. J. A. J. A. V. J.
B2	<100	<250	00\$>		90	7	5 1
B3	<100	<250	> < 500		2:5	1.7	J. J.
B4	001>	<250	005>	7 7	7 7	Į,	<b>?</b> ∫′
B5	<100	<250	<500		1/ 1/	7	5,5
B6	<100	<250	<500			7	7
B7	<100	<250	<500			7 7	
B8	<100	<250	<500			7 5	?
Reporting Limit <sup>3</sup>	001	250	500	*Tracestre Transcention Commence De Contracestre Commence De Contracestre Commence De Contracestre Commence De	**************************************	1,	? ~
MTCA-Method-A Cleanup Levels4	800 or 1000 <sup>5</sup>	500	500	<b>.</b>	1000	700	1000

Notes:

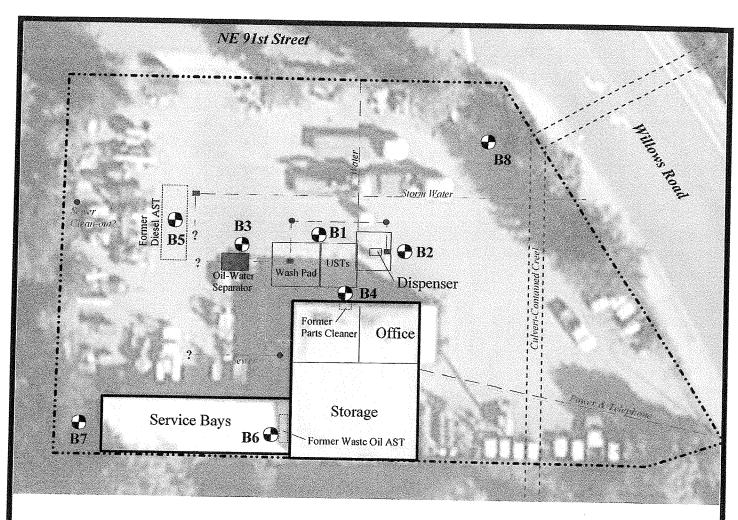
1. "ND" denotes analyte not detected at or above listed Reporting Limit.

2. "NA" denotes sample not analyzed for specific analyte.

"Reporting Limit" represents the laboratory lower quantitation limit.

Method A groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.



Trataprobe borings completed by EAI on January 4, 2012.





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# **EXPLORATION PLAN**

Equipment Rental Facility 9045 Willows Road Redmond, Washington

Job Number:	Date:	Scale:	Plate:
JN-31187	January 2012		2
	Access Commenced and Commenced		

Figure 2 Site Plan

RSC Equipment 9045 Willows Road NE, Redmond, Washington

Job No 25691720

Table 1

Summary of Soil Analytical Results (mg/kg) RSC Equipment

Redmond, Washington

		Sample Denth		0,4	VOCs			TPH	The state of the s
Sample ID	Sample Date	(ff hgs)	Benzene	Toluene	т,р-Хувепе	o-Xylene	Gasoline-Range	Diesel-Range	Heavy Oil-Range
PEX-1	3/14/2012	10	QN	GN	QN	OM	- GX	ON	GN
PEX-2	3/14/2012	10	QN	QN	Q	ND	Ŷ	SN	GZ.
PEX-3	3/14/2012	01	ON	QN.	Q.	QN	ΩŽ	GN.	GN
PEX-4	3/14/2012	01	S	ΩN	QN	Q.	S	S	QX.
PEX-5	3/14/2012	10	ON.	Q	SS	QN.	S	NO	GN.
PEX-6	3/14/2012	2	QN	ΩN	Q	QN CN	2	9	S
PEX-7	3/14/2012	2	0.039	ΩN	QN	QN	. QX	34	ΩX
PEX-8	3/14/2012	0	0.15	89'0	0.23	0.086	S	ON	QN
PEX-9	3/16/2012	E	SD	0,13	0.12	Q	QX	ON	GN
PEX-10	3/16/2012	2	0,21	0.82	0.29	0.11	ON.	ON.	QN
MTCA	MTCA Method A Soil Cleanup Level	nup_Level	0.03	7	(letot) 6	9 (total)	₹001 / DE	2,000	2,000

Notes:
Values in bold front indicate that the result reported neets or exceeds the most current MTCA level based on the Ecology website.

Note: The conservation Act (ATTCA) Cleanup Regulation, WAC 171-340. MTCA Method A values are from Ecology website CLARC tables downloaded April 2012 (https://footress.von.gov/ccy/clarc/reporting/CLARCReporting aspx).

In highs - intiligenance reliefs are reliefs and a relief of the r

ND - not detected TPH - total petroleum hydrocarbon

VOCs - volatile organic compounds
PEX-7 farough PEX-10 collected beneath feel piping and/pump island.

\*The MTCA Method A soil cleanup level is 100 mg/kg if benzene is not present and the total of chtylbenzane, toluene, and xylenes is less than 1% of the gasoline mixture. The MTCA Method A cleanup level for all other gasoline mixtures is 30 mg/kg.

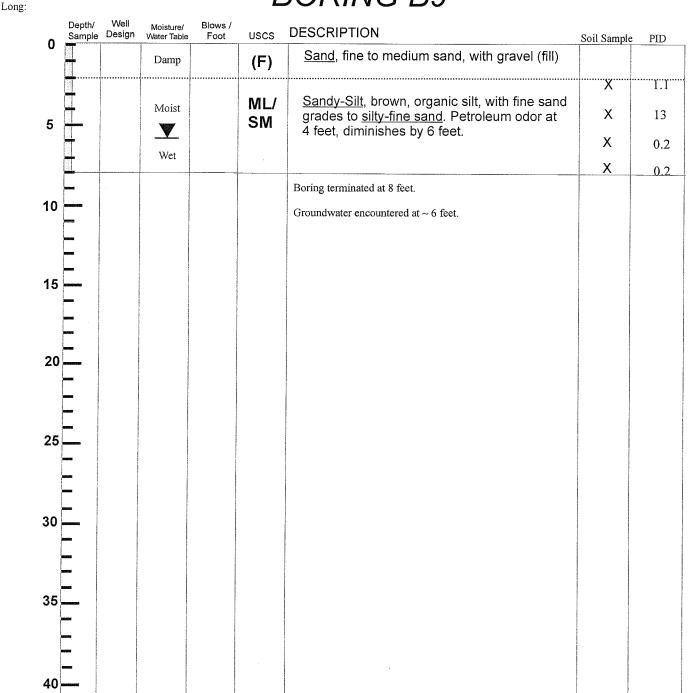
# ATTACHMENT-B

Boring Logs

WDOE Well Tag: Lat:

**BORING B9** 

Ground Surface Elevation: ~48 ft



Sampler: Continuous Soil Sampler Macro-Core.

Driller: ESN - Geoprobe Rig.



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# **BORING B9**

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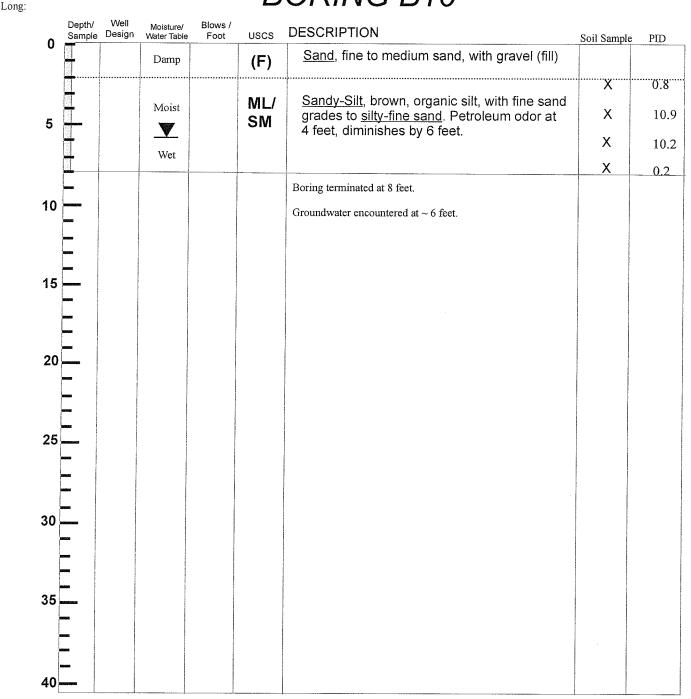
 Job Number:
 Date:
 Logged by:
 Plate:

 JN-31187-1
 7/20/2015
 RBR
 B-1

WDOE Well Tag: Lat:

**BORING B10** 

Ground Surface Elevation: ~48 ft



Sampler: Continuous Soil Sampler Macro-Core. Driller: ESN - Geoprobe Rig.



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# **BORING B10**

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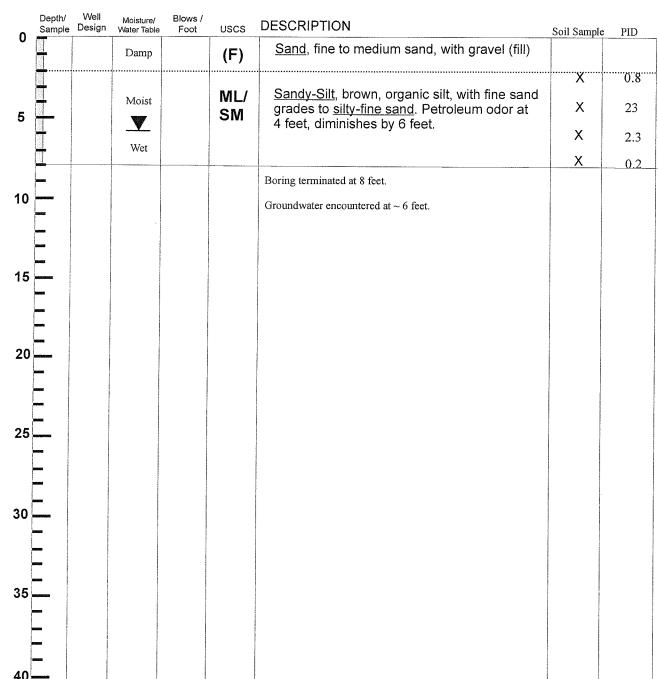
Job Number:	Date:	Logged by:	Plate:
JN-31187-1	7/20/2015	RBR	B-2

WDOE Well Tag:

Long:

**BORING B11** 

Ground Surface Elevation: ~48 ft



Sampler: Continuous Soil Sampler Macro-Core. Driller: ESN - Geoprobe Rig.



# **ENVIRONMENTAL**

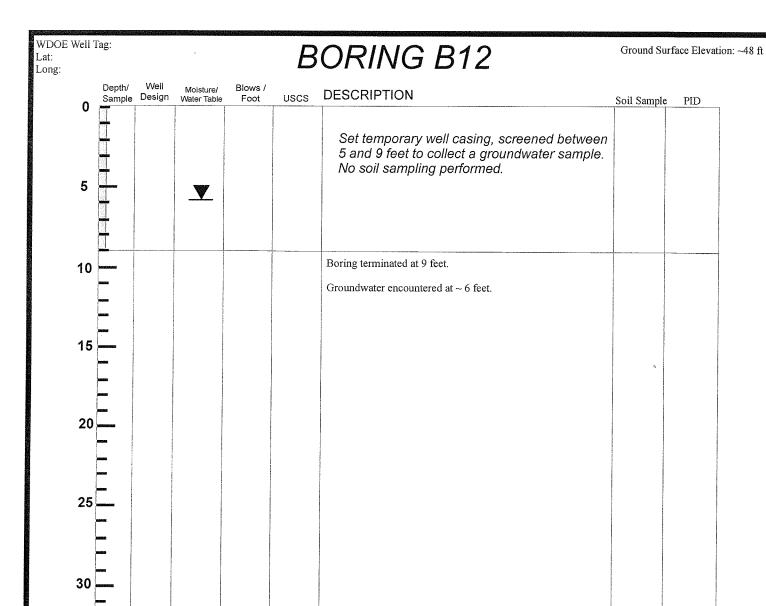
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# **BORING B11**

Former Rental Service Corp Facility 9045 Willows Road NE Redmond, Washington 98052

Job Number:	Date:	Logged by:	Plate:
JN-31187-1	.,20,20.0	RBR	B-3



Sampler: Continuous Soil Sampler Macro-Core.

Driller: ESN - Geoprobe Rig.



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# **BORING B12**

Former Rental Service Corp Facility 9045 Willows Road NE Redmond, Washington 98052

 Job Number:
 Date:
 Logged by:
 Plate:

 JN-31187-1
 7/20/2015
 RBR
 B-4

# **ATTACHMENT-C**

**Laboratory Report** 

July 27, 2015

Robert Roe Environmental Associates 1380 112th Avenue NE, Suite 300 Bellevue, WA 98004

Dear Mr. Roe:

Please find enclosed the analytical data report for the Former Equipment Rental Project located in Redmond, Washington. Probe services were conducted on July 20, 2015. Soil and water samples were analyzed for Gasoline by NWTPH-Gx and BTEX by Method 8260 on July 21 & 22, 2015.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to Environmental Associates for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michaela Korosoz

President

# ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT FORMER EQUIPMENT RENTAL
PROJECT #EAI-31187-1
Redmond, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Date	Benzene	Loluene	Ethylbenzene	Xvlenes	Gasoline Range Organics	Surrogate
nalyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
1/2015	рд	nd	nd	nd	nd	110
1/2015	98%	134%	119%	113%	78%	99
1/2015	92%	121%	108%	105%	1	103
1/2015	nd	nd	nd	nd	41	107
1/2015	nd	nd	nd	nd	nd :	
1/2015	nd	nd	nd	nd	37	107
1/2015	nd	nd	nd	nd	nd	114
1/2015	nd	nd	nd	nd	80	
1/2015	nd	nd	nd	nd	nd	109
	0.02	0.05	0.05	0.15	10	
1 000000000000	Analyzed  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015  7/21/2015		(mg/kg) (nd/kg) (nd/kg	mg/kg) (mg/kg)  nd nd 98% 134% 92% 121% nd	(mg/kg) (mg/kg) (mg/kg) (  nd nd nd nd  98% 134% 119%  92% 121% 108%  nd nd nd nd  nd nd nd  nd nd nd  nd nd nd  nd nd nd  nd nd nd  nd nd  nd nd nd  nd nd  nd nd  nd nd nd  nd nd  nd nd  nd nd	(mg/kg) (mg/kg) (mg/kg) (  nd nd nd nd 98% 134% 119% 92% 121% 108% nd

<sup>&</sup>quot;---" Indicates not tested for component.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Bromoflurorbenzene) & LCS:65% TO 135%

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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Redmond, Washington

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# Analysis of Gasoline Range Organics & BTEX in Water by Method NWTPH-Gx/8260

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	C
Number	Analyzed	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Surrogate Recovery (%)
Method Blank	7/22/2015	nd	nd	nd	nd	nd	104
LCS	7/22/2015	97%	125%	94%	121%	103%	94
LCSD	7/22/2015	109%	123%	109%	107%		90
B12	7/22/2015	nd	nd	nd	nd	nd	103
B12 Duplicate	7/22/2015	nd	nd	nd	nd	nd	103
Trip Blank	7/22/2015	nd	nd	nd	nd	nd	104
Reporting Limits		1.0	1.0	1.0	3.0	100	

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Bromoflurorbenzene) & LCS: 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination.

ESSV Environmental NORTHWEST, INC. Services Network

# CHAIN-OF-CUSTODY RECORD

CLIENT: I'M GRENNAN	7505		ecetário deficience a disessa de sea forma de contrator de contrator de contrator de contrator de contrator de	DATE: 7/20/15	PAGE
ADDRESS: BdB Algae Pl	llone Propert	operies ula 851 Missi	MISSION RA	PROJECT NAME: FOR WIEL Egy DEMEMA Renala	siphieut Ranta
PHONE: (2006) 616	- XX - X - X - X - X - X - X - X - X -	FAX: Walls walls, with	alla, WA 99362		
CLIENT PROJECT #: EMT - 31187-	M-3187-1	ECT MANAGER:	Ruert Kor	OR: Duck War	EAL DATE OF 7/20/16
	Sample	Container Container Container	01.00 10 10 10 10 10 10 10 10 10 10 10 10 1	21/15   21/15	1
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16.				4	
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18.					
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	SAMPLE RECEIPT	LABORATORY NOTES:
The second secon		TOB Good May	7	TOTAL NUMBER OF CONTAINERS CHAIN OF CUSTODY SEALS Y/N/NA	
RELINQUISHED BY (Signature)	DATE/TIME	re	DATE/TIME	SEALS INTACT? Y/N/NA	
	21000	T 0 18	po.	RECEIVED GOOD COND./COLD	
				NOTES:	Turn Around Time: 24 HR 48 HR 5 DAY

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