

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300
Bellevue, Washington 98004
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November 28, 2017

JN-22052-6

Dean Yasuda
Hazardous Waste & Toxic Reduction Program
3190 - 160th Avenue Southeast
Bellevue, Washington 98008

RE: CONTAINED-IN DETERMINATION REQUEST
Former White River Cleaners
4018 - A Street, #403
Auburn, Washington

Dear Mr. Yasuda:

Environmental Associates, Inc. (EAI), on behalf of the ownership of the above referenced property (Former White River Cleaners), is submitting this contained-in determination request as part of our effort to arrange for disposal of soil derived during site investigation, characterization, and remedial trenching pipe installation work. The following letter provides the requested site and project background data referenced on the Washington State Department of Ecology's (WDOE's) "how to request a contained-in determination for contaminated media" web site.

SITE INFORMATION

Site Name:	Former White River Cleaners (now vacant)
RCRA ID#	None currently aware of, applying to receive number
WDOE Facility / Site #:	NA
WDOE Cleanup Site ID:	NA
WDOE VCP #:	Independent cleanup action planned, not currently enrolled in VCP
Site Address:	4018 A Street, #403, Auburn, Washington
Tax Parcel#:	302105-9018 (King County)



Legal Description:	POR GL 4 DAF BEG SW COR SD GL 4 TH N 89-49-12 E ALG S LN THOF 556.63 FT TH N 0-05-30 E 30 FT TO TPOB TH CONT N 0-05-30 E 127.49 FT TH N 89-54-30 W 61 FT TH N 0-05-30 E 33 FT TH N 89-54-30 W 136 FT TH S 0-05-30 W 33 FT TH N 89- 54-30 W 69.71 FT TH S 0-05-30 W 128.75 FT M/L TAP ON NLY R/W MGN OF 41ST ST SE TH N 89-49-12 E ALG SD NLY R/W MGN 266.71 FT M/L TO TPOB AKA PCL 1 AU-LLA 0005-92 R REC #9208121200 & #9208191535
Property Owner / Contact:	Da Li Development/Properties LLC c/o Colliers International 601 Union Street, Suite 5300 Seattle, Washington 98101 Attn: Mr. Ramon Chavez 206-624-7412 phone Ramon.chavez@colliers.com
Consultant Contact:	Eric Zuern Environmental Associates, Inc. 1380 - 112 th Avenue NE, Suite 300, Bellevue, WA 98004 (425) 455-9025 phone info@environmentalassociatesinc.com

WASTE CODES & SOURCE OF CONTAMINATION

Waste Codes	F002: "spent halogenated solvents" including tetrachloroethylene (PCE)
State Only Criteria Waste Codes	"Not applicable," based on PCE concentrations in the soil below the threshold.
Type & Source Of Waste	Soil impacted with the dry cleaning chlorinated solvent tetrachloroethylene (PCE) contained during site investigations and shallow (approximately 4-5 feet deep) excavations for remedial piping trenches for associated vapor extraction system. The source of the release of PCE to soil is suspected to have been past handling of PCE during on-site dry cleaning operations.

WASTE VOLUME & DESCRIPTION

The following table presents a description of the PCE-containing soil drummed during site exploration and expected to be removed during on-site trenching. The table also contains the maximum and average PCE concentrations (derived during prior exploration/characterization studies) associated with the waste soils.

Waste Volume	Waste Generation Source	Estimated Generation Date	Max PCE concentration	Average PCE concentration
prior generation of approximately 10 55-gallon drums. Planned excavation of approximately 15-tons	Prior on-site subsurface explorations. Excavation of material in shallow contaminated soil zone.	Prior drummed soil generated between October 2015 and March 2017. Planned excavation work between January 2018 to May 2018	1.50 ppm	0.40 ppm

During initial exploration of the site, thirteen (13) soil borings and three (3) monitoring wells were installed within and around the subject. Soil samples from multiple depths were analyzed for the contaminants of concern in an effort to delineate the horizontal and vertical extent of the contamination. All soil samples were collected and submitted to the project laboratory following EPA sampling method 5035-A which is intended to minimize the potential loss of volatile organic compounds. The soil samples were analyzed for chlorinated volatile organic compounds (VOCs) by EPA Method 8260C. Attachment-A contains a data tables for all soil and groundwater analytical results (along with associated maps) by boring number / sample name. Applicable MTCA target compliance levels are referenced at the bottom of the table. Laboratory minimum reporting limits were all below corresponding WDOE target compliance levels. Copies of the laboratory reports are also included in Attachment-A

It is our opinion that the laboratory data is representative of the waste since multiple soil samples were analyzed over the depth of select borings / monitoring well installations that generated the drummed soil.

PROPOSED WASTE DISPOSAL METHOD / FACILITY


EAI has obtained a quote from Clear Creek Contractors to transport, and dispose of the approximate 15 tons of excavated soils to be generated during planned 2018 work. Costs for removal of current drummed soil and a couple drums of monitoring well development water has yet to be generated. A copy of the Clear Creek Contractor quote is included as Attachment-B.

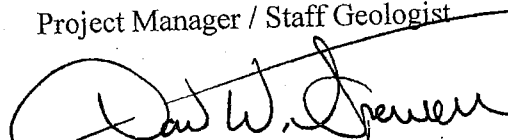
It is our understanding that waste soils generated by Clear Creek Contractors will be transported to a lawful waste handling facility equipped to receive such material.

IN CLOSING

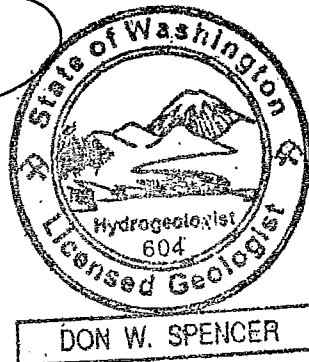
Thank you in advance for your review of our request for a contained-in determination. Please contact me anytime if you have questions or need additional information regarding our project and this request.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.


Eric Zuern
Project Manager / Staff Geologist


Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)

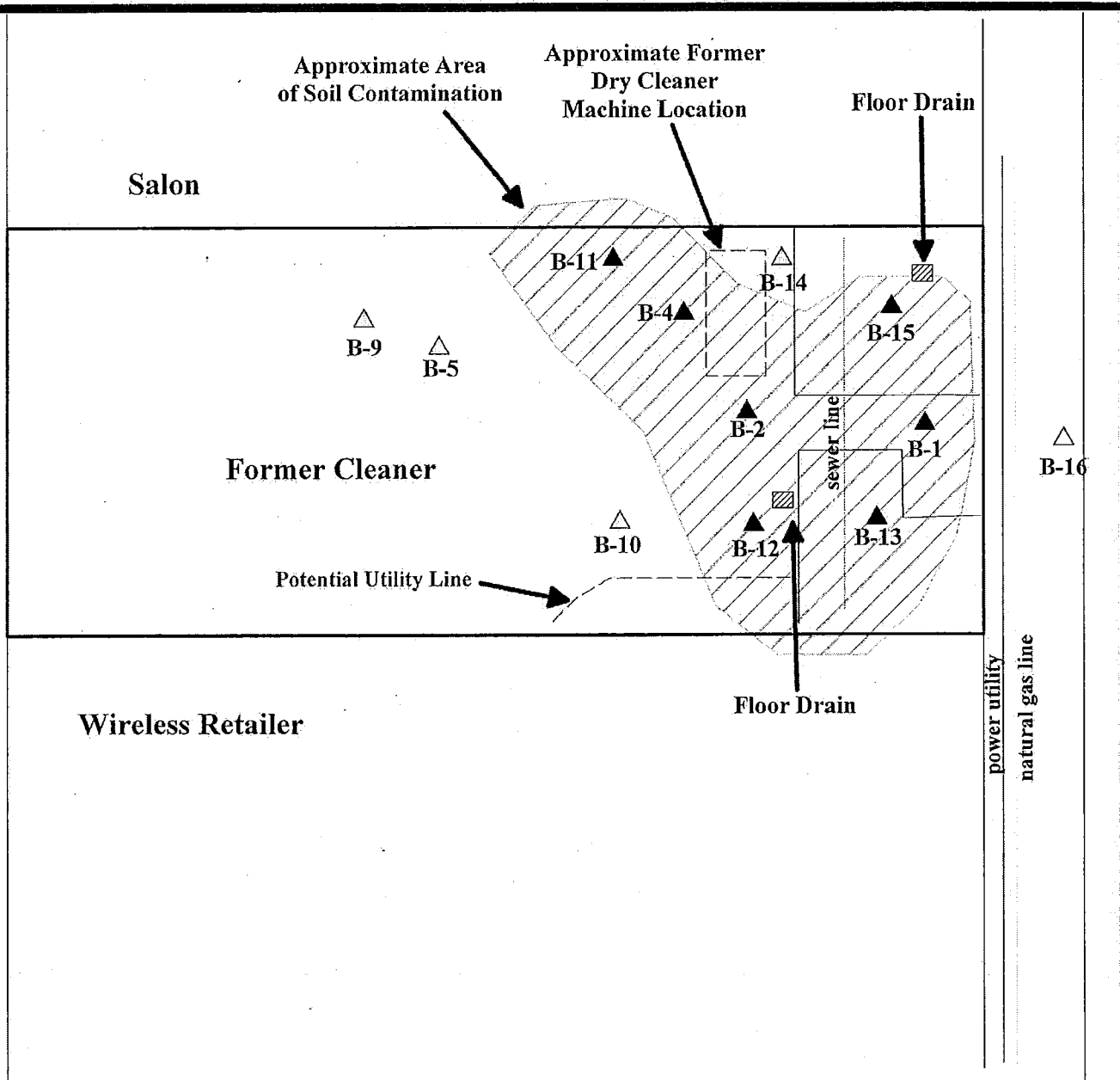


Attachments:

Site Exploration Plan
Attachment-A Data Table and Laboratory Report
Attachment-B Waste Management drum disposal bid

ATTACHMENT-A

Soil Results Table, Maps, & Lab Reports



△ ▲ Approximate Boring Location (yellow=compliant, red=non-compliant)

➤ Approximate Direction of Groundwater Flow

map not to scale



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Bellevue, Washington 98004

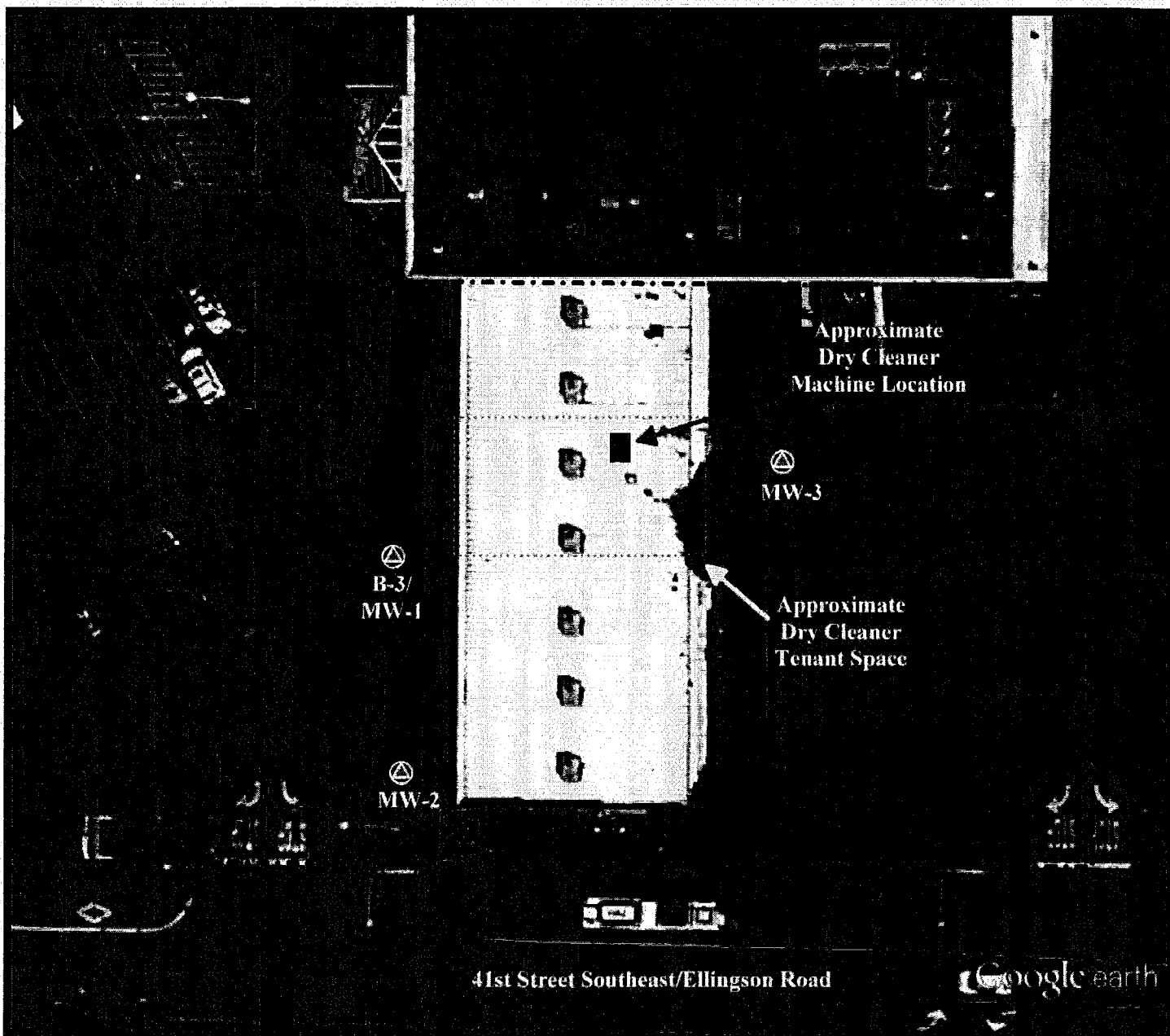
SITE PLAN

**Former Dry Cleaners
4018 A Street
Auburn, Washington**

Job Number:
JN 22052-5

Date:
May 2017

Plate:
2



Approximate Monitoring Well Locations



Approximate Site Boundary



Inferred Approximate Direction of Groundwater Flow

map not to scale



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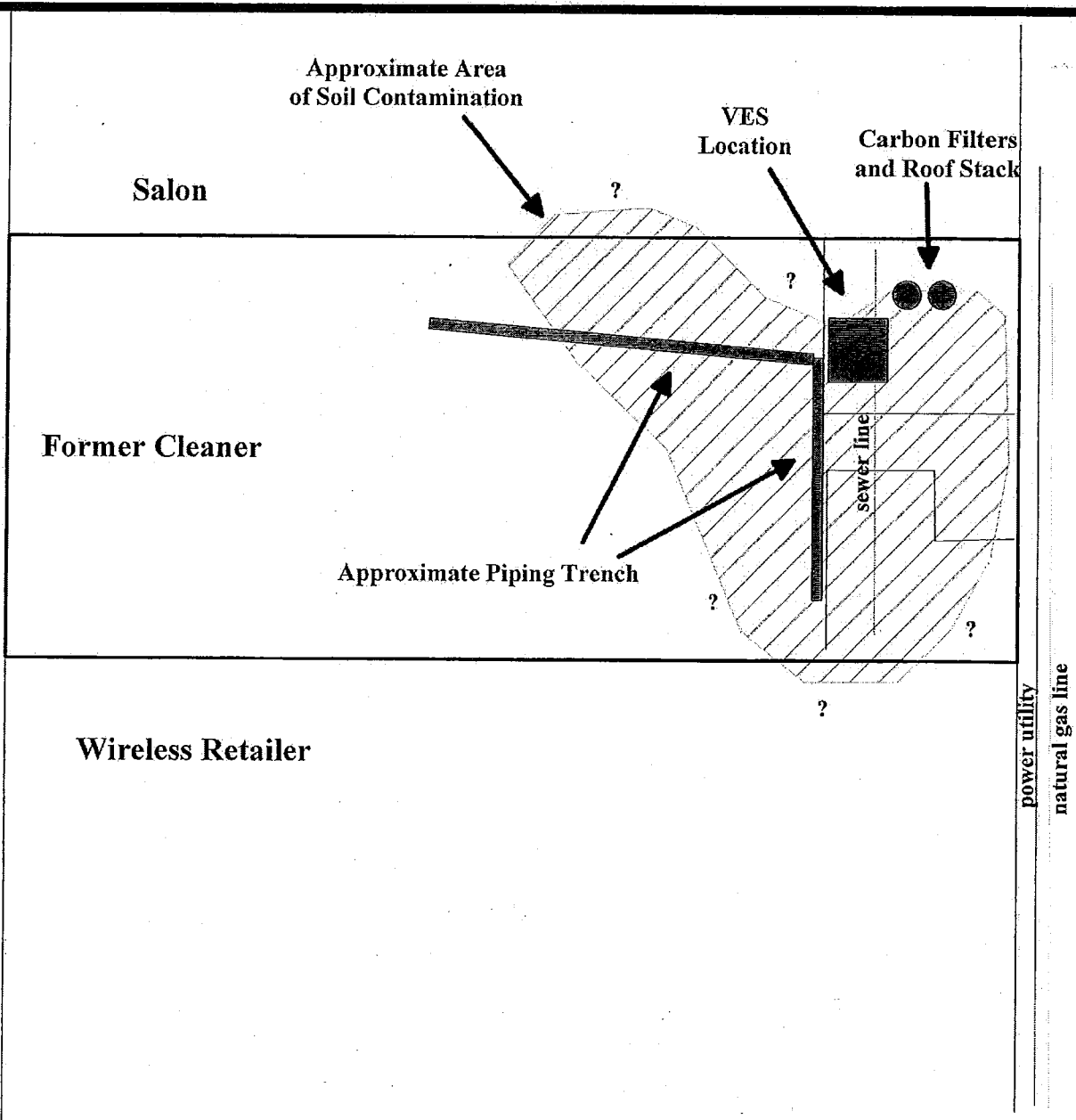
SITE PLAN

White River Cleaners
4018 A Street
Auburn, Washington

Job Number:
JN 22052-4

Date:
March 2016

Plate:
2



**ENVIRONMENTAL
ASSOCIATES, INC.**

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

OVERHEAD SITE PLAN

**Former White River Dry Cleaners
4018 A Street
Auburn, Washington**

Job Number:

JN 22052-6

Date:

November 2017.

Plate:

2

TABLE 3- VOCs - Soil Sampling Results
All results and limits in parts per million (ppm)

Strataprobe Boring	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
B1-2 @ 2'	1.50	ND	ND	ND	ND
B1-4 @ 4'	0.057	ND	ND	ND	ND
B1-8 @ 8'	ND	ND	ND	ND	ND
B2-4 @ 4'	0.14	ND	ND	ND	ND
B2-8 @ 8'	ND	ND	ND	ND	ND
B3-8 @ 8'	ND	ND	ND	ND	ND
B4-1 @ 1'	0.06	ND	ND	ND	ND
B5-1 @ 1'	ND	ND	ND	ND	ND
B6-25 @ 25'	NA	NA	NA	NA	NA
B7-10 @ 10'	NA	NA	NA	NA	NA
B7-17.5 @ 17.5'	NA	NA	NA	NA	NA
B8-10 @ 10'	NA	NA	NA	NA	NA
B8-17.5 @ 17.5'	NA	NA	NA	NA	NA
MW1-30 @ 30'	<0.025	<0.02	<0.05	<0.05	<0.05
MW2-20 @ 20'	<0.025	<0.02	<0.05	<0.05	<0.05
MW3-20 @ 20'	<0.025	<0.02	<0.05	<0.05	<0.05
Reporting Limit ³	0.02 (ESN)/0.025 (FB)	0.02	0.05	0.05	0.02 (ESN)/0.05 (FB)
Cleanup Level for Unrestricted Land Use (Method-A) ⁴	0.05	0.03	---	---	---
Cleanup Level - (Method-B) ⁵	476	12	160	1600.0	0.667

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 soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCOA) 173-340-WAC, Table 740-1.
- 5 - Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC May 2014 database.

Bold and Italics denotes concentrations above existing MTCOA Method A or B soil cleanup levels.
Where specified on Reporting Limits, FB=Friedman & Bruya Lab, ESN=ESN Northwest Lab

TABLE 4- VOCs - Groundwater Sampling Results
All results and limits in parts per billion (ppb)

Boring	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
B7-Water	NA	NA	NA	NA	NA
B8-Water	NA	NA	NA	NA	NA
MW1-Water	<1	<1	<1	<1	<0.2
MW2-Water	<1	<1	<1	<1	<0.2
MW3-Water	<1	<1	<1	<1	<0.2
Reporting Limit ³	1	1	1	1	0.2
Existing Cleanup Level ⁴	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)

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 or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended May 2014.

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

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

Strataprobe Boring	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
B9-2.5 @ 2.5'	ND	ND	ND	ND	ND
B9-5 @ 5'	ND	ND	ND	ND	ND
B9-10 @ 10'	ND	ND	ND	ND	ND
B10-3 @ 3'	ND	ND	ND	ND	ND
B10-5 @ 5'	ND	ND	ND	ND	ND
B10-10 @ 10'	ND	ND	ND	ND	ND
B11-3 @ 3'	0.06	ND	ND	ND	ND
B11-5 @ 5'	ND	ND	ND	ND	ND
B11-10 @ 10'	ND	ND	ND	ND	ND
B12-10 @ 10'	0.67	ND	ND	ND	ND
B12-14 @ 14'	ND	ND	ND	ND	ND
B13-3 @ 3'	0.48	ND	ND	ND	ND
B13-8 @ 8'	ND	ND	ND	ND	ND
B14-2.5 @ 2.5'	ND	ND	ND	ND	ND
B14-5 @ 5'	ND	ND	ND	ND	ND
B14-10 @ 10'	ND	ND	ND	ND	ND
B15-3 @ 3'	0.15	ND	ND	ND	ND
B15-8 @ 8'	ND	ND	ND	ND	ND
B16-3 @ 3'	ND	ND	ND	ND	ND
B16-5 @ 5'	ND	ND	ND	ND	ND
B16-10 @ 10'	ND	ND	ND	ND	ND
Reporting Limit ³	0.02	0.02	0.05	0.05	0.02
Cleanup Level for Unrestricted Land Use (Method-A) ⁴	0.05	0.03	---	---	---
Cleanup Level - (Method-B) ⁵	476	12	160	1600.0	0.667

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 soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC, Table 740-1.

5- Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC May 2014 database.

Bold and Italics denotes concentrations above existing MTCA Method A or B soil cleanup levels.
 Where specified on Reporting Limits, FB=Friedmand & Bruya Lab, ESN=ESN Northwest Lab

CHAIN-OF-CUSTODY RECORD

CLIENT: Environmental Associates, Inc. DATE: 9-3-15 PAGE 1 OF 1
 ADDRESS: 1380 12th ave NE, Suite 300 Bellevue, WA 98004 PROJECT NAME: White River Center
 PHONE: 425-455-9025 FAX: 425-455-2316 LOCATION: Auburn
 CLIENT PROJECT #: 220522 PROJECT MANAGER: Eric Zuerch COLLECTOR: Eric Zuerch DATE OF COLLECTION: 9-3-15

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES	TPH - HCD	TPH - Diesel & Oil	BTEX	VOC 8260CL	Semivol 8270	PAH's 8270	PCB's 8082	CI pesticides 8081	MTC's Metals	Pb	Asbestos - PLM	GRO suite	DRO suite	WFO suite	NOTES	Total Number of Containers	Note Number
1. B1-2	2'	8:50	Soil																		3	
2. B1-4	4'	8:55																			3	
3. B1-8	8'	9:05																			3	
4. B2-4	4'	9:35																			3	
5. B2-8	8'	9:40																			3	
6. B2-10	10'	9:55																			3	
7. B3-4	4'	11:01																			3	
8. B3-8	8'	11:14																			3	
9. B4-1	1'	1:25																			3	
10. B5-1	1'	1:40																			3	
11.																						
12.																						
13.																						
14.																						
15.																						
16.																						
17.																						
18.																						

RELINQUISHED BY (Signature) Eric Zuerch DATE/TIME 9-3-15 RECEIVED BY (Signature) [Signature] DATE/TIME 9-3-15
 RELINQUISHED BY (Signature) [Signature] DATE/TIME 9-3-15 RECEIVED BY (Signature) [Signature] DATE/TIME 9-3-15
 LABORATORY NOTES: Call Eric for billing
 Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CENTER
PROJECT #22052-2
Auburn, Washington

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

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B1-2	B1-4	B1-8	B2-4	B2-8
Date extracted		09/09/15	09/09/15	09/09/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15
Date analyzed	(mg/Kg)	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/10/15
% Moisture					10%	16%	16%	18%	6%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	92%	88%	nd	nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	97%	97%	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd
Chloroform	0.05	nd	130%	123%	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	123%	118%	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	152%	139%	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	102%	94%	1.5	0.057	nd	0.14	nd
Chlorobenzene	0.05	nd	103%	97%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		103%	98%	100%	101%	98%	96%	99%	99%
Toluene-d8		102%	94%	94%	104%	102%	101%	100%	101%
4-Bromofluorobenzene		104%	93%	93%	102%	102%	100%	99%	104%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CENTER
PROJECT #22052-2
Auburn, Washington

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

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B3-8	B4-1	B5-1
Date extracted		09/03/15	09/03/15	09/03/15
Date analyzed	(mg/Kg)	09/10/15	09/10/15	09/10/15
% Moisture		14%	6%	9%

Dichlorodifluoromethane	0.05	nd	nd	nd
Chloromethane	0.05	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd
Chloroethane	0.05	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.06	nd
Chlorobenzene	0.05	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd

Surrogate recoveries

Dibromofluoromethane	97%	95%	96%
Toluene-d8	102%	99%	96%
4-Bromofluorobenzene	104%	102%	104%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: MW1-30	Client: Environmental Associates
Date Received: 11/25/15	Project: JN 22052-3, F&BI 511369
Date Extracted: 11/30/15	Lab ID: 511369-09
Date Analyzed: 11/30/15	Data File: 113007.D
Matrix: Soil	Instrument: GCMS4
Units: mg/kg (ppm) Dry Weight	Operator: VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW2-20	Client:	Environmental Associates
Date Received:	11/25/15	Project:	JN 22052-3, F&BI 511369
Date Extracted:	11/30/15	Lab ID:	511369-11
Date Analyzed:	11/30/15	Data File:	113008.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-20	Client:	Environmental Associates
Date Received:	11/25/15	Project:	JN 22052-3, F&BI 511369
Date Extracted:	11/30/15	Lab ID:	511369-14
Date Analyzed:	11/30/15	Data File:	113009.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	JN 22052-3, F&BI 511369
Date Extracted:	11/30/15	Lab ID:	05-2429 mb
Date Analyzed:	11/30/15	Data File:	113006.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15
 Date Received: 11/25/15
 Project: JN 22052-3, F&BI 511369

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 511369-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	90	66-121
Toluene	mg/kg (ppm)	0.5	89	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	92	69-131
Gasoline	mg/kg (ppm)	20	95	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15

Date Received: 11/25/15

Project: JN 22052-3, F&BI 511369

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES, AND TPH AS GASOLINE
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 511369-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery	Acceptance
			LCS	Criteria
Benzene	ug/L (ppb)	50	95	65-118
Toluene	ug/L (ppb)	50	94	72-122
Ethylbenzene	ug/L (ppb)	50	93	73-126
Xylenes	ug/L (ppb)	150	92	74-118
Gasoline	ug/L (ppb)	1,000	96	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15

Date Received: 11/25/15

Project: JN 22052-3, F&BI 511369

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL
SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 511369-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	116	107	63-146	8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15

Date Received: 11/25/15

Project: JN 22052-3, F&BI 511369

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	103	107	58-134	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15

Date Received: 11/25/15

Project: JN 22052-3, F&BI 511369

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 511369-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	50	49	10-138	2
Chloroethane	mg/kg (ppm)	2.5	<0.5	60	58	10-176	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	67	10-160	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	80	79	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	76	76	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	79	79	19-140	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	86	86	25-135	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	79	80	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	83	85	10-156	2
Trichloroethene	mg/kg (ppm)	2.5	<0.02	82	81	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	77	77	20-133	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/03/15

Date Received: 11/25/15

Project: JN 22052-3, F&BI 511369

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	86	22-139
Chloroethane	mg/kg (ppm)	2.5	90	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	96	47-128
Methylene chloride	mg/kg (ppm)	2.5	104	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	102	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	101	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	109	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	100	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	111	62-131
Trichloroethene	mg/kg (ppm)	2.5	104	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	99	72-114

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

511369

SAMPLE CHAIN OF CUSTODY

ME 11-25-15

V3/V32/203

Send Report To Eric ZiemCompany Environmental Associates, Inc.Address 1380 112th Ave NE, Suite 200City, State, ZIP Bellevue, WA 98004Phone # 425-455-9025 Fax # 425-455-2811SAMPLERS (signature) Eric ZiemPROJECT NAME/NO. W 22052-3PO# 22052-3

REMARKS

Call to: Michael Hsu
Tolson & Associates
Call them at 417-200
Seattle, WA 98101Page # 1 of 2

TURNAROUND TIME

Standard (2 Weeks) / week

RUSH

Rush charges authorized by

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED					Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	
B7-10	01A	11/03/15	9:50	Soil	3	X	X	X			
B7-17.5	02A		10:10	↓	3	X	X	X			
B7-water	03A		10:30	Water	5	X	X	X			
B8-10	04A		11:30	Soil	3	X	X	X			
B8-17.5	05A		11:40	↓	3	X	X	X			
B8-water	06A	↓	12:00	Water	5	X	X	X			
MW1-10	07A	11/04/15	9:00	Soil	3						
MW1-20	08A		10:00	↓	3						
MW1-30	09A		10:30	↓	4						
MW2-10	10A	↓	1:00	↓	4						only checked VOCs

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Eric ZiemEric ZiemEA11/25/1511:40

Received by:

Eric ZiemEric ZiemEA11/25/1511:40

Friedman & Brya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMSCC/COC.DOC

Received by:

Eric ZiemEric ZiemEA11/25/1511:40Samples received at 3 00

DRAFT

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1-water	Client:	Environmental Associates
Date Received:	12/01/15	Project:	JN 22052-2, F&BI 512024
Date Extracted:	12/02/15	Lab ID:	512024-01
Date Analyzed:	12/02/15	Data File:	120211.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW2-water	Client:	Environmental Associates
Date Received:	12/01/15	Project:	JN 22052-2, F&BI 512024
Date Extracted:	12/02/15	Lab ID:	512024-02
Date Analyzed:	12/02/15	Data File:	120212.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-water	Client:	Environmental Associates
Date Received:	12/01/15	Project:	JN 22062-2, F&BI 512024
Date Extracted:	12/02/15	Lab ID:	512024-03
Date Analyzed:	12/02/15	Data File:	120213.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	JN 22052-2, F&BI 512024
Date Extracted:	12/02/15	Lab ID:	05-2430 mb
Date Analyzed:	12/02/15	Data File:	120208.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

✓3

Page # _____ of _____
TURNAROUND TIME

• Standard Turnaround / week
• PITCH

RUSH

Dispose after 30 days

- Return samples

Samples Received at _____ °C

[illegible]

Friedman & Bruyea, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS/COC/CDG/DOC

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CLEANERS
PROJECT #22052-5
Auburn, Washington

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

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B9-2.5	B9-5	B9-10	B10-3	B10-5	B10-10
Date extracted		04/13/17	04/13/17	04/13/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17
Date analyzed	(mg/Kg)	04/13/17	04/13/17	04/13/17	04/13/17	04/13/17	04/13/17	04/13/17	04/13/17	04/13/17
% Moisture					12%	14%	18%	9%	9%	19%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	103%	90%	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	72%	78%	nd	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	88%	106%	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	87%	93%	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	82%	81%	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	99%	96%	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	95%	93%	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd	nd
Surrogate recoveries										
Dibromofluoromethane		120%	99%	103%	112%	114%	116%	127%	116%	114%
Toluene-d8		95%	88%	93%	98%	95%	98%	98%	96%	95%
4-Bromofluorobenzene		109%	106%	100%	106%	111%	106%	107%	109%	109%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CLEANERS
PROJECT #22052-5
Auburn, Washington

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

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B11-3	B11-5	B11-10	B12-10	B13-3	B13-8	B14-2.5	B14-5	B14-10
Date extracted		04/10/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17	04/10/17
Date analyzed	(mg/Kg)	04/14/17	04/14/17	04/14/17	04/14/17	04/14/17	04/14/17	04/14/17	04/14/17	04/14/17
% Moisture		6%	9%	18%	13%	14%	15%	28%	18%	21%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	0.06	nd	nd	0.67	0.48	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	0.31	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	0.18	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	0.65	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	0.93	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries										
Dibromofluoromethane		120%	112%	112%	121%	114%	117%	111%	114%	116%
Toluene-d8		95%	96%	96%	95%	97%	94%	96%	95%	97%
4-Bromofluorobenzene		110%	112%	113%	112%	112%	112%	113%	113%	111%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CLEANERS
PROJECT #22052-5
Auburn, Washington

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Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnsw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B15-3	B15-8	B16-3	B16-10
Date extracted		04/10/17	04/10/17	04/10/17	04/10/17
Date analyzed	(mg/Kg)	04/14/17	04/14/17	04/14/17	04/14/17
% Moisture		15%	23%	15%	27%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	0.15	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd
Surrogate recoveries					
Dibromofluoromethane		116%	112%	130%	120%
Toluene-d8		93%	96%	93%	96%
4-Bromofluorobenzene		111%	106%	109%	115%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CLEANERS
PROJECT #22052-5
Auburn, Washington

ESN Northwest
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(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

Date analyzed	RL (ug/L)	MB 04/13/17	LCS 04/13/17	LCSD 04/13/17	B12-Water* 04/13/17	Trip Blank 04/13/17
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	98%	99%	nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
1,1-Dichloroethene	1.0	nd	84%	77%	nd	nd
Methylene chloride	1.0	nd			nd	nd
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			nd	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	119%	113%	nd	nd
Bromochloromethane	1.0	nd			nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd
Carbon tetrachloride	1.0	nd			nd	nd
Trichloroethene (TCE)	1.0	nd	93%	89%	nd	nd
1,2-Dichloropropane	1.0	nd			nd	nd
Bromodichloromethane	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	95%	95%	nd	nd
Chlorobenzene	1.0	nd	94%	94%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd
Surrogate recoveries						
Dibromofluoromethane		115%	122%	116%	119%	113%
Toluene-d8		95%	89%	88%	95%	98%
4-Bromofluorobenzene		111%	103%	106%	108%	110%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

*Voa contained headspace. Oxygenation of compounds is possible.

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
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Auburn, Washington

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Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCS-D	B1-2	B1-4	B1-8	B2-4	B2-8
Date extracted		09/09/15	09/09/15	09/09/15	09/03/15	09/03/15	09/03/15	09/03/15	09/03/15
Date analyzed	(mg/Kg)	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/09/15	09/10/15
% Moisture					10%	16%	16%	18%	6%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	92%	88%	nd	nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	97%	97%	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd
Chloroform	0.05	nd	130%	123%	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	123%	118%	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	152%	139%	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	102%	94%	1.5	0.057	nd	0.14	nd
Chlorobenzene	0.05	nd	103%	97%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		103%	98%	100%	101%	98%	96%	99%	99%
Toluene-d8		102%	94%	94%	104%	102%	101%	100%	101%
4-Bromofluorobenzene		104%	93%	93%	102%	102%	100%	99%	104%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc.
PROJECT WHITE RIVER CENTER
PROJECT #22052-2
Auburn, Washington

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lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B3-8	B4-1	B5-1
Date extracted		09/03/15	09/03/15	09/03/15
Date analyzed	(mg/Kg)	09/10/15	09/10/15	09/10/15
% Moisture		14%	6%	9%
Dichlorodifluoromethane	0.05	nd	nd	nd
Chloromethane	0.05	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd
Chloroethane	0.05	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd
Chloroform	0.05	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd
1,2-Dichloroethane (BDC)	0.05	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.06	nd
Chlorobenzene	0.05	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd
Surrogate recoveries				
Dibromofluoromethane		97%	95%	96%
Toluene-d8		102%	99%	96%
4-Bromofluorobenzene		104%	102%	104%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ATTACHMENT-B

Clear Creek Contractor Disposal Quote

Quote for Former Dry Cleaners 4018 A Street

06/19/2017 5:27PM Page 1

Clearcreek Contractors
3919 88th Street NE
Marysville, WA 98270
markm@clearcreekcon.com

Contact: Mark McCullough
Phone: (360) 659-2459
Fax: (360) 659-9346
Cell: (206) 423-8120

Bond: Not Included
Sales Tax: Not Included
Bid Date: 06/19/2017

Quote To: Eric Zuern
Environmental Associates
1380 112th Avenue N.E. Ste 300
Bellevue WA 98004

Phone: (425) 455-9025
Fax:
Email: donspencer@environmentalassociatesinc.com

Quote is valid for 60 days.

Item	Description	Quantity	Unit	Unit Price	Extension
10	MOB/DEMOB	1.000	LS	4,430.000	4,430.00
20	CONCRETE SAW CUTTING	400.000	IN*F	1.900	760.00
30	FLATWORK HARDSCAPE DEMOLITION	100.000	SF	16.500	1,650.00
40	TRENCHING/SOIL DISPOSAL 2'-4' BGS	15.000	TON	670.000	10,050.00
50	PLACE AND CONNECT BLOWER (MECHANICAL)	1.000	LS	2,040.000	2,040.00
55	CONNECT BLOWER (ELECTRICAL)	1.000	FA	4,000.000	4,000.00
60	SVE PIPING INSTALL INCL BACKFILL & RESTORATION	50.000	LFP	85.000	4,250.00
Total Quote: \$					27,180.00

Inclusions/Exclusions:

Unit rate bid items are estimated quantities only. Project billing will be based on actual quantities encountered during field work.
Quantities encountered that are 50% more or 50% less than bid quantities are subject to changes in unit rates.

Includes one mobilization / demobilization to the site.

Site assessment and analytical testing is not included.

Physical testing or compaction monitoring is not included.

Clearcreek has not included applying and/or paying for permits.

Analytical testing for waste characterization or profiling is not included.

Utility or building shoring is not included.

We assume no utilities are within the excavation limits.

Costs associated with repairs, damages, and delays from unidentified utilities are not included.

Dewatering and disposal of water is not included.

Dust control is not included.

Contained In designation will be provided by others.

No tenants will be in work space during our work.

No restrictions on our work hours.