

June 8, 2018

Mr. Robert R. Graham
Graham Real Ventures
18811 – 16th Avenue South
Seattle, Washington 98188-5102

Project: **Technical Addendum Report**
 H&H Diesel Service, Inc.
 407 Porter Way
 Milton, Washington 98354-9686
 Ecology Facility/Site ID: 89863773
 PLIA PTAP ID: PSW031

Dear Mr. Graham:

Associated Environmental Group, LLC (AEG) is pleased to present this Technical Addendum Report summarizing additional AEG activities at the above-referenced Site in Milton, Washington. This work was performed to determine the Site's eligibility to be enrolled in the Washington State Pollution Liability Insurance Agency (PLIA) Petroleum Technical Assistance Program (PTAP).

On February 27, 2018, following submittal of a PTAP application on behalf of the client, AEG met with PLIA staff to determine this Site's eligibility for enrollment into the PTAP, which accepts projects that have petroleum releases only for consideration of a No Further Action (NFA) determination. Based on the information provided, PLIA staff determined that the Site may be eligible for PTAP if: 1) it could be shown that arsenic impacts beneath the Site are associated with background or area-wide conditions vs. plumes from nearby formal cleanup sites with known arsenic sources; and 2) it could be shown there are no impacts of volatile organic compounds (VOCs) associated with an alleged former parts washer on the south side of the Site.

AEG reviewed documents and data available online via the Washington State Department of Ecology (Ecology) and confirmed that the arsenic plumes from the nearby formal sites (B&L Woodwaste Landfill and USG Hwy 99) do not extend to the H&H Site. The location of these two formal sites with respect to the H&H Site is illustrated on Figure 1, *Vicinity Map*. Plume maps generated by HartCrowser and CDM Smith for these two nearby formal sites, respectively, are also attached.

Based on limited other available data surrounding the Site, AEG determined it is likely the source of impacts in groundwater beneath the Site are from a non-point source likely associated with filling of the area (with fill containing Asarco slag from the former smelter in Tacoma). Groundwater impacted with arsenic beneath the Site is fairly ubiquitous; however, only 3 out of about 30 or so soil samples from the Site exceed cleanup levels for arsenic, none of which are high enough to be the source of the groundwater impacts (Site soil data is summarized in the



attached Table 1, *Summary of Cumulative Soil Analytical Results*). That said, some of the arsenic groundwater concentrations are in the range of 50-100 micrograms per liter, which is a bit higher than what could be argued as natural background. Hence, the likelihood of a non-point source as filling with fill containing slag was common historically for the area.

On April 18, 2018, AEG advanced a boring (B-14) on the south side of the Site where Ecology was concerned a parts washer formerly operated. The location of the boring is illustrated on the attached Figure 2, *Site Map*. Two soil samples and one groundwater sample were collected from the boring and analyzed for the following analyses:

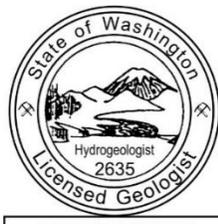
- Gasoline-range petroleum hydrocarbons (TPH) using Northwest Method NWTPH-Gx.
- Diesel- and oil-range TPH using Northwest Method NWTPH-D/Dx.
- VOCs (full list) using EPA Method 8260.
- Total MTCA 5 Metals.
- Ethylene Glycol.

None of these constituents were detected above their respective MTCA A or B cleanup levels. Selected analytical results of the soil and groundwater samples are presented in Table 1, *Summary of Cumulative Soil Analytical Results*, Table 2, *Summary of Groundwater Analytical Results – TPH & Metals*, and Table 3, *Summary of Groundwater Analytical Results – Selected VOCs*, and the complete laboratory results are attached.

If you have any questions or concerns regarding this report, please do not hesitate to contact our office at (360) 352-9835.

Sincerely,

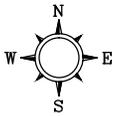
Scott Rose, L.H.G.
Senior Hydrogeologist



SCOTT | ROSE

Attached: Figure 1 – *Vicinity Map*
HartCrowser Figure 11 – *Extent of Dissolved Arsenic in the Upper Sand Aquifer, B&L Woodwaste Landfill*
CDM Smith Figure 14A – *Dissolved Total Arsenic in Groundwater*
CDM Smith Figure 14B – *Dissolved Total Arsenic in Groundwater*
Figure 2 – *Site Map*
Table 1 – *Summary of Cumulative Soil Analytical Results*
Table 2 – *Summary of Groundwater Analytical Results – TPH & Metals*
Table 3 – *Summary of Groundwater Analytical Results – Selected VOCs*
Laboratory Datasheets

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
15-112_1602.DWG	ICD	4/11/2016	DB	4/11/2016



PROJECT LOCATION

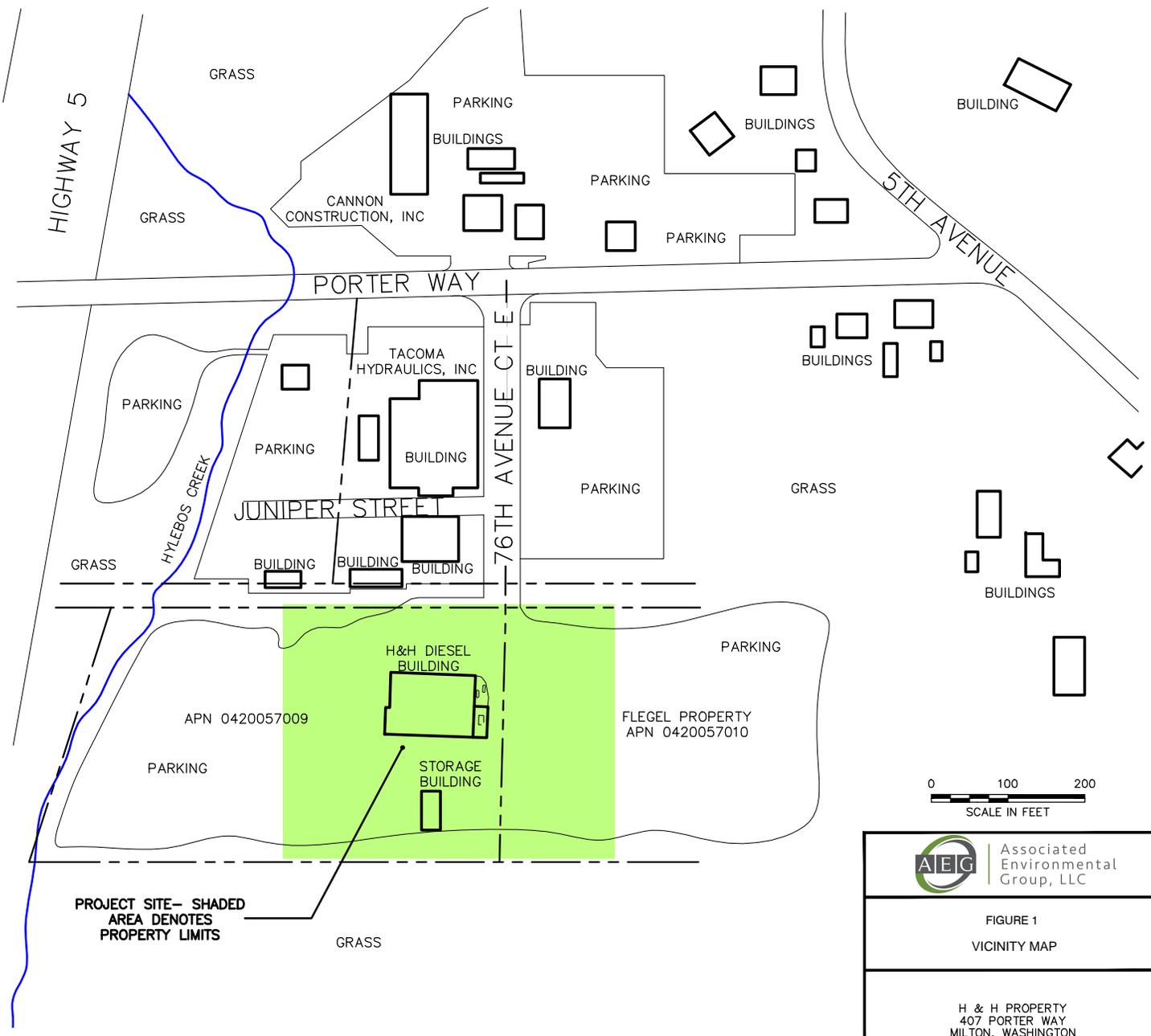
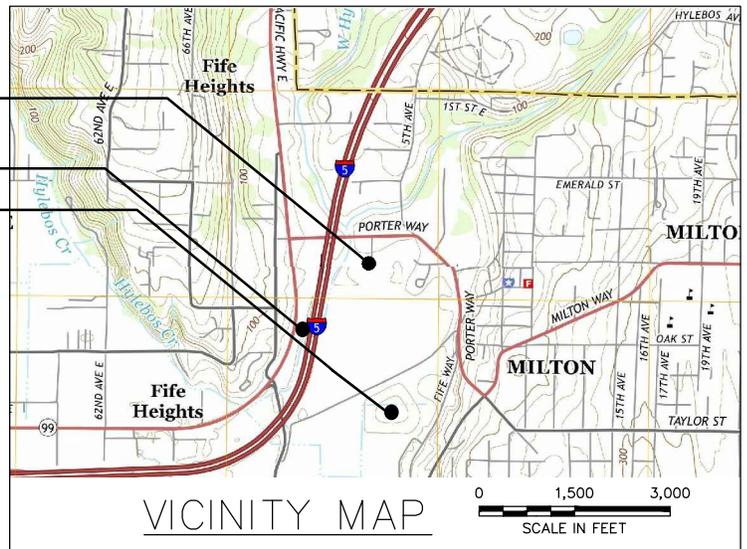
USG HWY 99 SITE

NOTES B&L WOODWASTE LANDFILL SITE

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

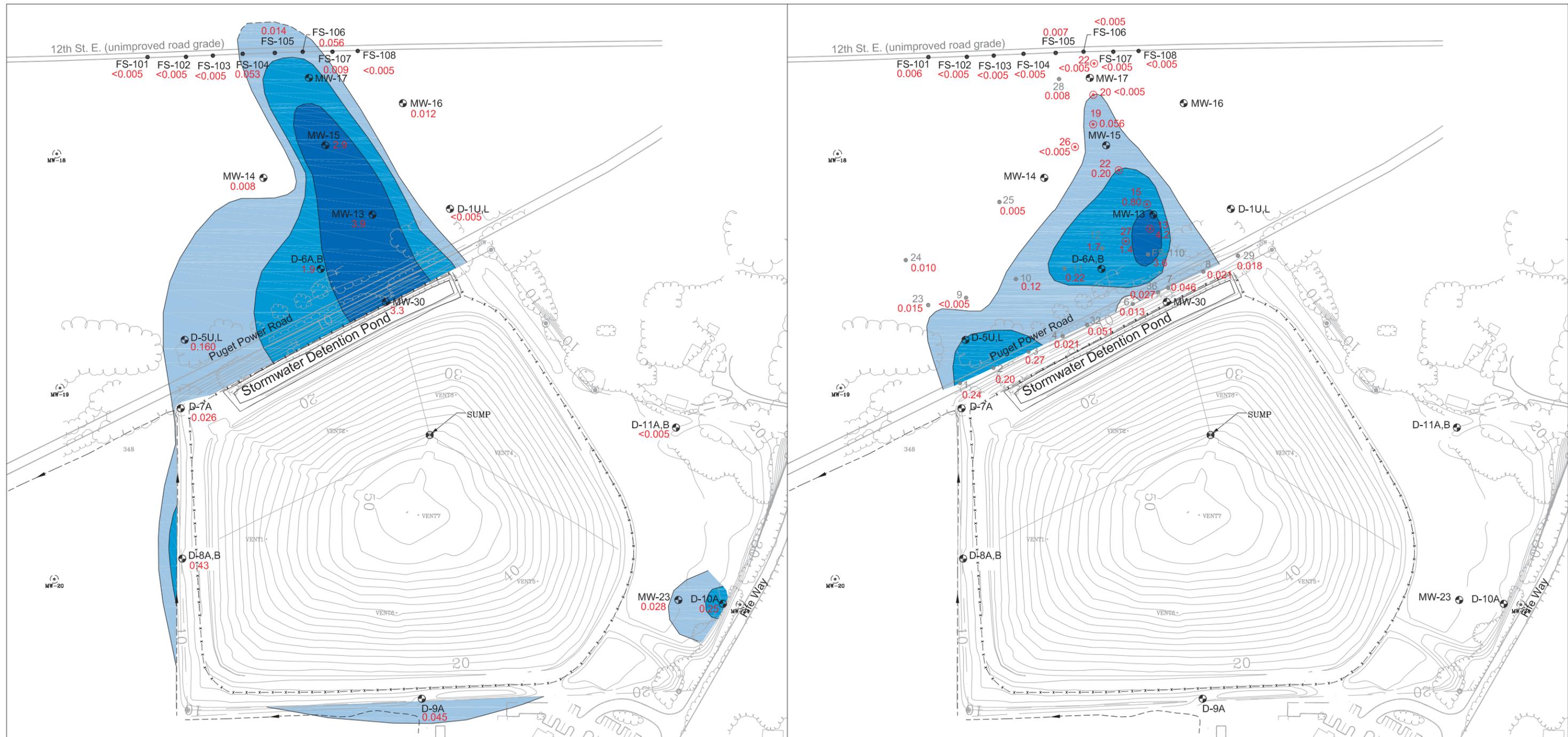
DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
VICINITY IMAGE SOURCE: U.S. GEOLOGICAL SURVEY-2014, 7.5 MINUTE QUADRANGLE MAP POVERTY BAY, WASHINGTON



AEG | Associated Environmental Group, LLC

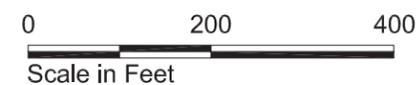
FIGURE 1
VICINITY MAP

H & H PROPERTY
407 PORTER WAY
MILTON, WASHINGTON



- FS-102 Geoprobe Groundwater Sampling Location, Sept. 2006
 - MW-15 Shallow Aquifer Monitoring Well
 - Decommissioned Shallow Aquifer Monitoring Well
 - Sump Monitoring Well
 - 1 Geoprobe Groundwater Sampling Location, Aug-Oct. 2005 ("FS" prefix omitted for clarity)
 - ⊙ 15 Geoprobe Groundwater Sampling and Temporary Piezometer Location
 - 14 Temporary Piezometer Location
- | | |
|---------------------------|---------------|
| Dissolved Arsenic in mg/L | |
| <0.005 to 0.020 | Lightest Blue |
| 0.020 to 0.200 | Light Blue |
| 0.200 to 2.000 | Medium Blue |
| > 2.0 | Darkest Blue |
- 0.023 Actual Concentration in mg/L

- Notes:
- Contours based on August 2006 sampling of monitoring wells with screened intervals in the bottom 5' of the Shallow Aquifer.
 - Results from MW-17 were excluded because MW-17 is screened above this interval.
 - Only Sept. 2006 discrete-depth probe groundwater samples from the deeper interval (16-20' to 19-23') at the base of the Upper Sand Aquifer are shown.



B&L Landfill Milton, Washington	
Extent of Dissolved Arsenic in the Upper Sand Aquifer	
17330-09	5/07
	Figure 11

Note: Figure based on drawing from Groundwater Alternatives Evaluation Report, prepared by Floyd/Snider, January 2007.

P:\19921\77628\Hylebos Creek\EXPANDED SITE\FIGURE-14A-SCALE 120 01/11/13 10:16 riehlepj XREFS: SITEBASE-EXPANDED, HC-SITEBASE, S_1117
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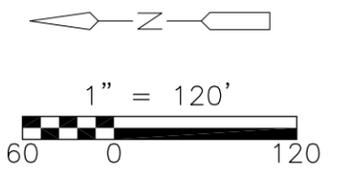
REFERENCE: GOOGLE EARTH PRO, 2012, IMAGE DATE AUGUST 20, 2011

LEGEND:

- MW-12** ⊕ 2.1 MONITORING WELL AND DISSOLVED TOTAL ARSENIC CONCENTRATION (ug/L)
- GW-1** ● 55 PHASE 2 DPT BORING AND DISSOLVED TOTAL ARSENIC CONCENTRATION (ug/L)

NOTE:

MONITORING WELL MW-14 WAS DRILLED AT THE LOCATION OF GW-6

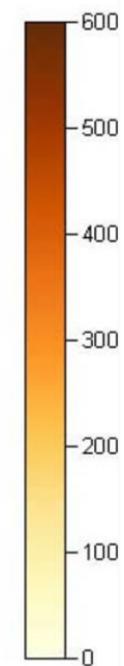
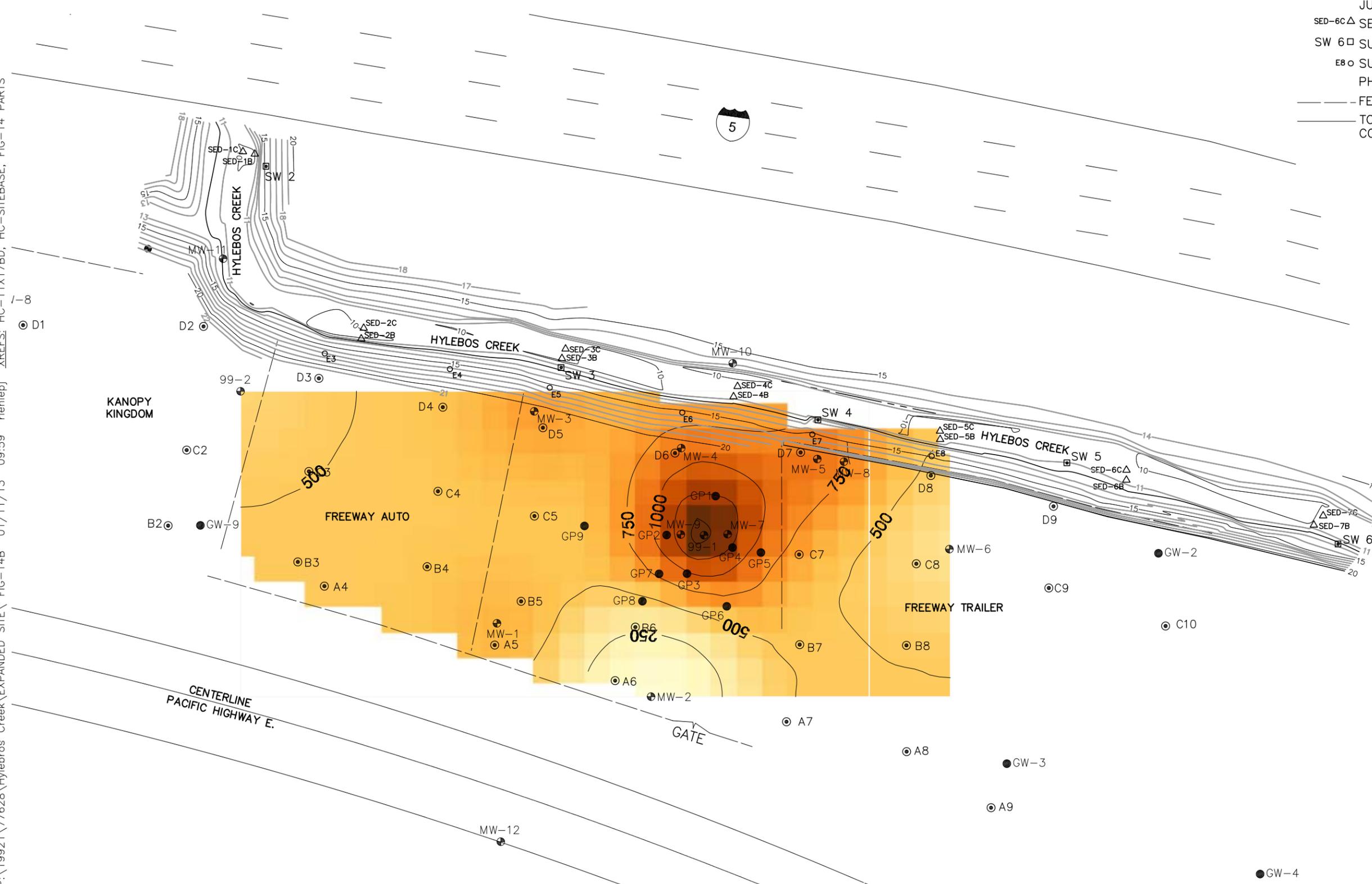


USG INTERIORS
 HIGHWAY 99 SITE
 MILTON, WASHINGTON

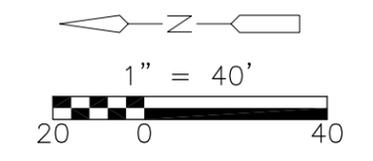
Figure No. 14A
 Dissolved Total Arsenic in Groundwater

P:\19921\77628\Hylebros Creek\EXPANDED SITE\ FIG-14B 01/11/13 09:59 riehepej XREES: HC-11X17BD, HC-SITEBASE, FIG-14 PARTS

- LEGEND**
- MW-7 ● MONITORING WELL LOCATION
 - A9 ● SOIL BORING LOCATION
 - GP6 ● PHASE 1 DPT BORING JUNE 2006
 - SED-6C ▲ SEDIMENT SAMPLE LOCATION
 - SW 6 □ SURFACE WATER SAMPLE
 - E8 ○ SURFACE SOIL SAMPLE LOCATION PHASE 2 DPT BORING APRIL 2011
 - — — FENCE
 - — — TOPOGRAPHIC ELEVATION CONTOUR LINE



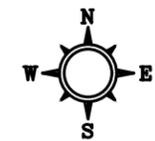
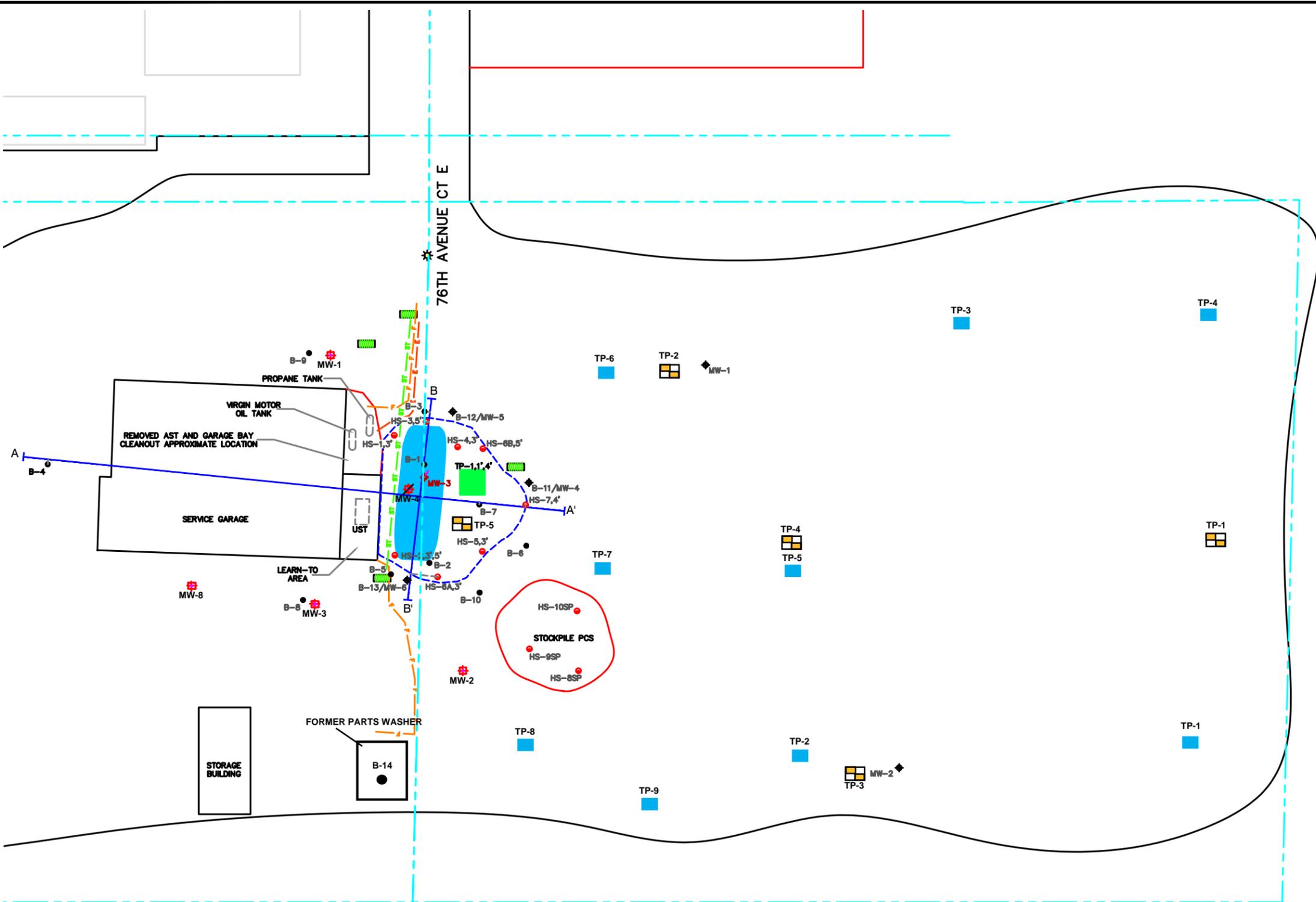
TOTAL ARSENIC GRADIENT IN GROUNDWATER (ug/L)



USG INTERIORS/HIGHWAY 99 SITE
MILTON, WASHINGTON

Figure No. 14B
Dissolved Total Arsenic in Groundwater

FILENAME 15-112_COMBINED_OLD_AND_NEW_000.DWG DRAWN BY DB 6/27/2017 CHECKED BY DB 6/27/2017 APPROVED BY DB 6/27/2017 PROJECT NUMBER 15-112



- PROPERTY LINE
- MW-1 ◆ GROUNDWATER MONITORING WELL LOCATION (AEG)
- MW-2 ◆ GROUNDWATER MONITORING WELL LOCATION (ADAPT)
- B-1 ● SOIL BORING LOCATION
- HS-1,3 ● CONFIRMATION SAMPLE LOCATION
- MW-3 ◆ REMOVED GROUNDWATER MONITORING WELL LOCATION
- ▭ STORM DRAIN/CATCH BASIN
- ☼ LIGHT POLE
- FIBER OPTIC LINE
- ELECTRIC LINE
- STORM WATER LINE
- - - APPROXIMATE LIMIT OF EXCAVATION
- TEST PIT SAMPLE LOCATION
- A—A' LINE OF LITHOLOGIC CROSS SECTION AND PROJECTION LINE OR BORING/WELL
- TP-6 ■ AEG TEST PITS 2009
- TP-6 ■ LSI ADAPT TEST PITS 2001

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.



FIGURE 2
SITE MAP

H & H PROPERTY
407 PORTER WAY
MILTON, WASHINGTON

Table 1 - Summary of Cumulative Soil Analytical Results

H&H Diesel
Milton, Washington

Sample Number	Sample Type ¹	Depth Collected (feet)	Date Collected	Total Petroleum Hydrocarbons			Selected Volatile Organic Compounds													Total cPAHs (TEF)	PCBs	MTCA 5 Metals					Ethylene Glycol			
				Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Xylenes	EDB	EDC	MTBE	PCE	TCE	VC	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Total Naphthalenes			Mercury	Lead	Cadmium	Total Chromium	Hexavalent Chromium		Arsenic		
LSI ADAPT Phase II June 2001																														
TP-1/3.0-3.5	D	3.0-3.5	6/28/2001	<23	<58	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	55	<0.58	42	--	12	--		
TP-2/1.5-2.0	D	1.5-2.0	6/28/2001	<22	<54	<110	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.4	<0.54	<0.54	--	<11	--	
TP-3/3.0-3.5	D	3.0-3.5	6/28/2001	<25	<63	<130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	<0.63	25	--	<13	--		
TP-3/7.0-7.5	D	7.0-7.5	6/28/2001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<14	<1.4	50	--	43	--		
TP-4/2.0-2.5	D	2.0-2.5	6/28/2001	<22	<56	330	<0.02	<0.05	<0.05	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	--	--	<0.1	--	28	<0.56	32	--	<11	--	
TP-5/2.0-2.5	D	2.0-2.5	6/28/2001	<22	<56	380	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	56	<0.56	26	--	<11	--		
AEG																														
AEG MW1-S1-3	D	3	5/13/2009	--	<50	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AEG MW1-S2-8	D	8	5/13/2009	<10	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AEG MW1-S3-15	D	15	5/13/2009	--	<50	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AEG MW2-S4-3	D	3	5/13/2009	--	500	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AEG MW2-S5-10	D	10	5/13/2009	<10	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	--	<0.1	--	--	--	--	--	--	--	--	
AEG MW3-S6-3	D	3	5/13/2009	<10	200	13,000	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	290	<1.0	140	--	21	--		
AEG MW3-S7-8	D	8	5/13/2009	--	<50	200	<0.02	<0.05	<0.05	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	--	<0.1	--	--	--	--	--	--	--	--	
AEG MW3-S8-12	D	12	5/13/2009	<10	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TP1-5	D	5	5/13/2009	--	<50	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TP1-8	D	8	5/13/2009	<10	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TP2-5	D	5	5/13/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	72	<1.0	28	--	8.4	--		
TP3-8	D	8	5/13/2009	--	--	--	<0.02	23	0.07	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	<0.1	--	--	--	--	--	--	--	--	--	
TP4-8	D	8	5/13/2009	<10	--	--	<0.02	<0.05	0.07	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	13	<1.0	15	--	5.7	--		
TP5-6	D	6	5/13/2009	--	<50	<100	<0.02	<0.05	0.07	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	<0.1	--	--	--	--	--	--	--	--	--	
TP6-3	D	3	5/13/2009	--	<50	520	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	42	<1.0	18	--	6.5	--		
TP6-8	D	8	5/13/2009	--	<50	130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TP7-3	D	3	5/13/2009	--	--	--	<0.02	<0.05	0.07	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	<0.1	--	--	--	--	--	--	--	--	--	
TP7-6	D	6	5/13/2009	25	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP8-3	D	3	5/13/2009	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	67	<1.0	21	--	19	--		
TP8-7	D	7	5/13/2009	<10	<50	460	<0.02	<0.05	<0.05	<0.15	--	--	--	<0.02	<0.02	<0.05	--	--	--	<0.1	--	--	--	--	--	--	--	--	--	
TP9-8	D	8	5/13/2009	<10	--	--	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B1-S1-4	D	4.0	3/24/2015	11,000	2,000	5,600	0.032	0.98	1.5	10	--	--	--	--	--	--	--	--	--	--	--	<0.5	21	<1.0	19	--	<5.0	--		
B1-S2-8	D	8.0	3/24/2015	34	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	23	--	<5.0	--		
B1-S3-12	D	12.0	3/24/2015	<10	<50	110	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	<5.0	--	<5.0	--		
B2-S1-4	D	4.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	9.1	<1.0	34	--	<5.0	--		
B2-S2-8	D	8.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	28	--	<5.0	--		
B2-S3-10	D	10.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	23	--	<5.0	--		
B3-S1-8	D	8.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	26	--	<5.0	--		
B4-S1-7	D	7.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	26	--	<5.0	--		
B5-S1-8	D	8.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	29	--	<5.0	--		
B8-S1-8	D	8.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	26	--	<5.0	--		
B9-S1-8	D	8.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	28	--	<5.0	--		
B10-S1-2	D	2.0	3/24/2015	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	<0.5	<5.0	<1.0	24	--	<5.0	--		
TP-1 1'	P X	1.0	8/26/2015	210	<50	160	<0.02	<0.05	<0.05	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TP-1 4'	P X	4.0	8/26/2015	8,800	1,200	2,600	<0.02	1.1	0.47	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HS-1 3'	P	3.0	8/26/2015	40,000	900	2,500	0.035	1.7	12	57	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	89	180	36.2	<0.02	0.02	<5.0	<5.0	<1.0	23	<0.1	<5.0	--		
HS-2 3'	P	3.0	8/26/2015	110	<50	180	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HS-2 5'	P	5.0	8/26/2015	92	<50	130	<0.02	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	0.074	0.19	0.22	<0.02	<0.01	<5.0	7.3	<1.0	27	<0.1	7	--		
HS-3 5'	P	5.0	8/27/2015	130	<50	1,700	<0.02	0.15	0.24	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HS-4 3'	P X	3.0	8/27/2015	47	<50	1,200	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HS-5 3'	C	3.0	8/27/2015	21	<50	100	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--															

Table 1 - Summary of Cumulative Soil Analytical Results

H&H Diesel
Milton, Washington

Sample Number	Sample Type ¹	Depth Collected (feet)	Date Collected	Total Petroleum Hydrocarbons			Selected Volatile Organic Compounds													Total cPAHs (TEF)	PCBs	MTCA 5 Metals					Ethylene Glycol		
				Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	PCE	TCE	VC	1,3,5-Trimethyl-benzene	1,2,4-Trimethyl-benzene	Total Naphthalenes			Mercury	Lead	Cadmium	Total Chromium	Hexavalent Chromium		Arsenic	
HS-9SP	SP	1.0	9/11/2015	280	120	390	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	25	<1.0	41	--	5	--
HS-10SP	SP	1.0	9/11/2015	28	<50	270	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	59	<1.0	36	--	8.4	--
B11/MW-4	D	5.0	9/29/2015	280	370	<100	<0.02	<0.05	1.9	<0.15	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--
B12/MW-5	D	5.0	9/29/2015	38	<50	<100	<0.02	<0.05	0.14	0.82	--	--	--	--	--	--	--	--	0.29	--	--	--	--	--	--	--	--	--	--
B13/MW-6	D	5.0	9/29/2015	53	<50	630	<0.02	<0.05	<0.05	<0.15	--	--	--	--	--	--	--	--	0.21	--	--	--	--	--	--	--	--	--	--
B14 @3'	D	3.0	4/18/2018	<10	<50	730	<0.02	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	--	--	<0.5	11	<1.0	58	--	11	<100	
B14 @8'	D	8.0	4/18/2018	<10	<50	<100	<0.02	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	--	--	<0.5	<5	<1.0	45	--	59	<100	
PQL				10	50	100	0.02	0.05	0.05	0.15	0.05	0.05	0.05	0.02	0.02	0.02	0.05	0.05	0.02	0.02	0.01	0.5	5.0	1.0	5.0	0.1	5.0	100.0	
MTCA Method A Cleanup Levels				30*	2,000	2,000	0.03	7	6	9	0.005	11**	0.1	0.05	0.03	0.72**	800**	NL	5	0.1	1	2	250	2	2,000	19	20	160,000**	

Notes:

All values are presented in milligrams per kilogram (mg/kg)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* TPH-Gasoline Cleanup Level with the presence of Benzene anywhere at the Site

** Method B Cleanup levels

¹ Sample Type (D = Discreet sample from boring or test pit; P = Performance Sample; X = Excavated/Removed; C = Confirmation Sample; SP = Stockpile Sample/representative of removed soils)

NL = Not listed; no Method A or B cleanup level has been established for this constituent

EDB = Ethylene dibromide

EDC = 1,2-Dichloroethane

MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethylene

TCE = Trichloroethylene

VC = Vinyl chloride

PCBs = Polychlorinated biphenyls

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

TEF = Toxicity Equivalency Factor; MTCA Table 708-2

Table 2 - Summary of Groundwater Analytical Results - TPH & Metals

H&H Property
Milton, WA

Monitoring Well	Date Sampled	Gasoline	Diesel Extended TPH			MTCA 5 Metals - Total Metals					Dissolved Metals		Ethylene Glycol
			Diesel	Heavy Oil	Mineral Oil	Mercury	Lead	Cadmium	Chromium	Arsenic	Lead	Arsenic	
AEG MW-1	5/28/2009	<100	<200	<400	<400	<0.5	6.6	<1.0	<10	50.9	--	--	--
	9/11/2009	156	<200	<400	<400	<0.5	<5.0	<1.0	<10	70	<5.0	60	--
	12/18/2009	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	50.3	<5.0	44.4	--
	4/5/2010	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	44.2	<5.0	31.7	--
	3/18/2015	--	<200	<400	--	<0.5	<5.0	<0.5	<5.0	47.8	--	23.9	--
AEG MW-2	5/28/2009	<100	<200	<400	<400	<0.5	40.7	<1.0	27.7	102	--	--	--
	9/11/2009	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	203	<5.0	183	--
	12/18/2009	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	202	<5.0	169	--
	4/5/2010	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	91.9	<5.0	32.4	--
	3/18/2015	--	<200	<400	--	<0.5	<5.0	<0.5	<5.0	164	--	108	--
AEG MW-3	5/28/2009	<100	700	<400	<400	<0.5	<5.0	<1.0	7.8	20.4	--	--	--
	9/22/2009	370	<200	1,470	<400	--	--	--	--	--	--	--	--
	12/18/2009	760	<200	<400	<400	--	--	--	--	--	--	--	--
	4/5/2010	<100	995	<400	<400	<0.5	<5.0	<1.0	<10	29.9	<5.0	10.4	--
ADAPT MW-2	5/28/2009	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	<5.0	--	--	--
	9/11/2009	205	<200	<400	<400	<0.5	<5.0	<1.0	<10	13	<5.0	12.3	--
	12/18/2009	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	<5.0	<5.0	11	--
	4/5/2010	<100	<200	<400	<400	<0.5	<5.0	<1.0	<10	12.4	<5.0	7.4	--
B-1	3/24/2015	39,000	26,000	49,000	--	<1.0	16	<2.0	15	21	6.3	17	--
B-2	3/24/2015	<100	<250	<500	--	<1.0	<2.0	<2.0	<10	57	<2.0	50	--
B-3	3/24/2015	<100	<250	<500	--	<1.0	<2.0	<2.0	10	54	<2.0	37	--
B-4	3/24/2015	<100	<250	<500	--	<1.0	5.4	<2.0	<10	52	2.8	48	--
B-5	3/24/2015	<100	<250	<500	--	<1.0	<2.0	<2.0	<10	56	<2.0	52	--
B-6	3/24/2015	<100	<250	<500	--	<1.0	7.8	<2.0	<10	4.9	2.1	3.7	--
B-7	3/24/2015	<100	<250	980	--	<1.0	30	<2.0	<10	22	15	15	--
B-8	3/24/2015	<100	<250	<500	--	<1.0	<2.0	<2.0	<10	53	<2.0	48	--
B-9	3/24/2015	<100	<250	<500	--	<1.0	<2.0	<2.0	<10	35	<2.0	33	--
B-10	3/24/2015	<100	<250	1,800	--	<1.0	38	<2.0	<10	17	11	11	--
MW-4	10/8/2015	130	<250**/	<500**/	--	--	--	--	--	--	--	--	--
	1/27/2016*	--	--	--	--	--	--	--	--	--	--	--	--
	4/1/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
	8/5/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
MW-5	10/8/2015	<100	<250**/	<500**/	--	--	--	--	--	--	--	--	--
	1/27/2016	220	<250	<500	--	--	--	--	--	--	--	--	--
	4/1/2016	270	<250	<500	--	--	--	--	--	--	--	--	--
	8/5/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
MW-6	10/8/2015	<100	<250**/	<500**/	--	--	--	--	--	--	--	--	--
	1/27/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
	4/1/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
	8/5/2016	<100	<250	<500	--	--	--	--	--	--	--	--	--
B14W	4/18/18	--	<250	<500	--	<1.0	5	<2.0	27	21	--	--	<10
PQL		100	200	400	400	0.5/1.0	2.0/5.0	0.5/1.0/2.0	10	5.0	2.0/5.0	5.0	<10
MTCA Method A Cleanup Levels		800***	500	500	500	2	15	5	50	5	15	5	16,400^

Notes:

All values in micrograms per liter (µg/L)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* Not sampled; well was covered with soil and could not be located. Metal detector used to locate for next event.

** Analyzed with Silica Gel Clean Up

*** TPH-Gasoline Cleanup Level with the presence of Benzene anywhere at the Site

^ MTCA Method B cleanup level

Table 3 - Summary of Groundwater Analytical Results - Selected VOCs

H&H Property
Milton, WA

Monitoring Well	Date Sampled	Select Volatile Organic Compounds													
		Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,3,5-Trimethyl-benzene	EDC	EDB	MTBE	Naphthalene	2-Methyl-naphthalene	1-Methyl-naphthalene	PCE	TCE	Vinyl Chloride
AEG MW1-W	5/28/2009	<1	14.3	<1	<3	<1	<1	<0.01	--	7.7	--	--	<1	<1	<0.20
	9/11/2009	<1	136	<1	<3	--	--	--	--	--	--	--	--	--	--
	12/18/2009	<1	27	<1	<3	--	--	--	--	--	--	--	--	--	--
	4/5/2010	1.3	2.9	<1	3.6	--	--	--	--	--	--	--	--	--	--
AEG MW2-W	5/28/2009	<1	<1	<1	<3	<1	<1	<0.01	--	<5	--	--	<1	<1	<0.20
	9/11/2009	<1	14.7	<1	<3	--	--	--	--	--	--	--	--	--	--
	12/18/2009	<1	1.7	<1	<3	--	--	--	--	--	--	--	--	--	--
	4/5/2010	<1	<2	<1	<3	--	--	--	--	--	--	--	--	--	--
AEG MW3-W	5/28/2009	1.5	11.1	6.5	54.5	37.4	<1	<0.01	--	89.2	--	--	<1	<1	<0.20
	9/22/2009	<1	<2	2.6	15.3	--	--	--	--	--	--	--	--	--	--
	12/18/2009	1.4	1.9	3.4	26	--	--	--	--	--	--	--	--	--	--
	4/5/2010	<1	4.9	2.7	32	--	--	--	--	--	--	--	--	--	--
ADAPT MW2-W	5/28/2009	<1	<1	<1	<3	<1	<1	<0.01	--	<5	--	--	<1	<1	<0.20
	9/11/2009	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--
	12/18/2009	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--
	4/5/2010	<1	<2	<1	<3	--	--	--	--	--	--	--	--	--	--
B-1	3/24/2015	1.4	14	11	180	--	--	--	--	--	--	--	--	--	--
B-2	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-3	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-4	3/24/2015	<1.0	<1.0	<1.0	4.4	--	--	--	--	--	--	--	--	--	--
B-5	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-6	3/24/2015	<1.0	1.3	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-7	3/24/2015	<1.0	2.7	<1.0	5.9	--	--	--	--	--	--	--	--	--	--
B-8	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-9	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
B-10	3/24/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	--	--	--
MW-4	10/8/2015	<1.0	47.0	1.1	6.7	--	--	--	--	0.40	<0.1	<0.1	--	--	--
	1/27/2016*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/1/2016	<1.0	3.9	4.7	<3.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
	8/5/2016	<1.0	<1.0	3.1	<3.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
MW-5	10/8/2015	<1.0	2.7	7.1	<3.0	--	--	--	--	0.60	<0.1	<0.1	--	--	--
	1/27/2016	<1.0	40.0	2.1	11.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
	4/1/2016	<1.0	45.0	2.3	13.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
	8/5/2016	<1.0	<1.0	1.0	6.9	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
MW-6	10/8/2015	<1.0	<1.0	<1.0	<3.0	--	--	--	--	0.50	0.90	0.80	--	--	--
	1/27/2016	<1.0	<1.0	<1.0	<3.0	--	--	--	--	<0.1	0.70	1.20	--	--	--
	4/1/2016	<1.0	<1.0	<1.0	<3.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
	8/5/2016	<1.0	<1.0	<1.0	<3.0	--	--	--	--	<0.1	<0.1	<0.1	--	--	--
B14W	4/18/2018	<1.0	1.0	<1.0	<3.0	<1.0	<1.0	<1.0	2.6	<1.0	--	--	<1.0	<1.0	<0.2
PQL		1.0	1.0 / 2.0	1.0	3.0	1.0	1.0	0.01 / 1.0	1.0	0.1 / 5.0	0.1	0.1	1.0	1.0	0.2
MTCA Method A Cleanup Levels		5	1,000	700	1,000	80**	5	0.01	20	160	320	34.48	5	5	0.2

Notes:

All values in micrograms per liter (µg/L)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* Not sampled; well was covered with soil and could not be located. Metal detector used to locate for next event.

** Method B cleanup level; Method A Cleanup Level not established

EDC = 1,2-Dichloroethane

EDB = Ethylene Dibromide

MTBE = Methyl Tert-Butyl Ether

PCE = Tetrachloroethylene

TCE = Trichloroethylene

May 1, 2018

Shawn Lombardini
Associated Environmental Group, Inc.
605 11th Ave. SE, Suite 201
Olympia, WA 98501

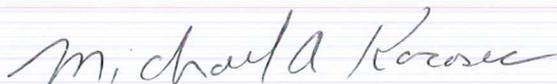
Dear Mr. Lombardini:

Please find enclosed the analytical data report for the H&H Diesel/Graham Jr Project in Milton, Washington. Probe services were conducted on April 18, 2018. Soil and water samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, VOC's by Method 8260, MTCA 5 Metals by Method 6020, and Ethylene Glycol by Method GC-FID on April 20 – 24, 2018.

The results of the analyses are summarized in the attached table. 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 Associated Environmental Group, Inc. 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
President

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group
PROJECT H&H DIESEL/GRAHAM JR
PROJECT #15-112
Washington

ESN Northwest
1210 Eastside Street SE Suite 200
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lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	4/20/2018	4/20/2018	143	nd	nd
LCS	4/20/2018	4/20/2018	99	108%	---
B14@3'	4/20/2018	4/20/2018	99	nd	730
B14@8'	4/20/2018	4/20/2018	127	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group
PROJECT H&H DIESEL/GRAHAM JR
PROJECT #15-112
Washington

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	4/20/2018	4/20/2018	94	nd	nd
LCS	4/20/2018	4/20/2018	82	125%	---
B14-W	4/20/2018	4/20/2018	110	nd	nd
Reporting Limits				250	500

"---" Indicates not tested for component.

"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group
 PROJECT H&H DIESEL/GRAHAM JR
 PROJECT #15-112
 Washington

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

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	4/23/2018	4/23/2018	nd	nd	nd	nd	nd	94
LCS	4/23/2018	4/23/2018	96%	87%	75%	79%	91%	99
LCSD	4/23/2018	4/23/2018	104%	93%	79%	82%	---	101
B14@3'	4/18/2018	4/23/2018	nd	nd	nd	nd	nd	96
B14@8'	4/18/2018	4/23/2018	nd	nd	nd	nd	nd	96
Reporting Limits			0.02	0.05	0.05	0.15	10	

"---" Indicates not tested for component.

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

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

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group
PROJECT H&H DIESEL/GRAHAM JR
PROJECT #15-112
Washington

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

Sample Number	Date Analyzed	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Gasoline Range Organics (ug/L)	Surrogate Recovery (%)
Method Blank	4/20/2018	nd	nd	nd	nd	nd	96
LCS	4/20/2018	103%	144%	106%	112%	106%	88
LCSD	4/20/2018	104%	114%	99%	107%	---	101
B14W	4/20/2018	nd	1.0	nd	nd	nd	95
B14W Duplicate	4/20/2018	nd	1.0	nd	nd	nd	95
Reporting Limits		1.0	1.0	1.0	3.0	100	

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

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

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group
 PROJECT H&H DIESEL/GRAHAM JR
 PROJECT #15-112
 Washington

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

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

	RL	MB	LCS	LCSD	B14@3'	B14@8'
Date extracted		04/23/18	04/23/18	04/23/18	04/18/18	04/18/18
Date analyzed	(mg/Kg)	04/23/18	04/23/18	04/23/18	04/23/18	04/23/18
% Moisture					90%	8%
Dichlorodifluoromethane	0.05	nd			nd	nd
Chloromethane	0.05	nd			nd	nd
Vinyl chloride	0.02	nd	122%	120%	nd	nd
Bromomethane	0.05	nd			nd	nd
Chloroethane	0.05	nd			nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd
Acetone	0.25	nd			nd	nd
1,1-Dichloroethene	0.05	nd	102%	108%	nd	nd
Methylene chloride	0.05	nd			nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd
Chloroform	0.05	nd	103%	107%	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
Benzene	0.02	nd	96%	104%	nd	nd
Trichloroethene (TCE)	0.02	nd	90%	94%	nd	nd
1,2-Dichloropropane	0.05	nd	77%	84%	nd	nd
Dibromomethane	0.05	nd			nd	nd
Bromodichloromethane	0.05	nd			nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd
Toluene	0.05	nd	87%	93%	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd
2-Hexanone	0.25	nd			nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd
Dibromochloromethane	0.05	nd			nd	nd
Tetrachloroethene (PCE)	0.02	nd	89%	92%	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd
Chlorobenzene	0.05	nd	88%	92%	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd
Ethylbenzene	0.05	nd	75%	79%	nd	nd
Xylenes	0.15	nd	79%	82%	nd	nd
Styrene	0.05	nd			nd	nd
Bromoform	0.05	nd			nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd
Isopropylbenzene	0.05	nd			nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd
Bromobenzene	0.05	nd			nd	nd

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	RL	MB	LCS	LCSD	B14@3'	B14@8'
Date extracted		04/23/18	04/23/18	04/23/18	04/18/18	04/18/18
Date analyzed	(mg/Kg)	04/23/18	04/23/18	04/23/18	04/23/18	04/23/18
% Moisture					90%	8%
n-Propylbenzene	0.05	nd			nd	nd
2-Chlorotoluene	0.05	nd			nd	nd
4-Chlorotoluene	0.05	nd			nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd
tert-Butylbenzene	0.05	nd			nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd
sec-Butylbenzene	0.05	nd			nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd
Isopropyltoluene	0.05	nd			nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd
n-Butylbenzene	0.05	nd			nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd
Naphthalene	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		115%	107%	106%	110%	117%
Toluene-d8		107%	101%	100%	104%	106%
4-Bromofluorobenzene		94%	99%	101%	96%	96%

Data Qualifiers and Analytical Comments

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

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

Analytical Results

	RL	MB	LCS	LCSD	B14W	B14W Duplicate
Date analyzed	(ug/L)	04/20/18	04/20/18	04/20/18	04/20/18	04/20/18
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	64%	91%	nd	nd
Bromomethane	1.0	nd			nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
Acetone	10.0	nd			nd	nd
1,1-Dichloroethene	1.0	nd	80%	80%	nd	nd
Methylene chloride	1.0	nd			nd	nd
Methyl-t-butyl ether (MTBE)	1.0	nd			2.4	2.6
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
2-Butanone (MEK)	10.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			nd	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	115%	118%	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
Benzene	1.0	nd	103%	104%	nd	nd
Trichloroethene (TCE)	1.0	nd	99%	100%	nd	nd
1,2-Dichloropropane	1.0	nd	92%	93%	nd	nd
Dibromomethane	1.0	nd			nd	nd
Bromodichloromethane	1.0	nd			nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
Toluene	1.0	nd	144%	114%	1.0	1.0
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
2-Hexanone	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	106%	106%	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd			nd	nd
Chlorobenzene	1.0	nd	107%	111%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
Ethylbenzene	1.0	nd	106%	99%	nd	nd
Xylenes	3.0	nd	112%	107%	nd	nd
Styrene	1.0	nd			nd	nd
Bromoform	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
Isopropylbenzene	1.0	nd			nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
Bromobenzene	1.0	nd			nd	nd

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

Analytical Results

	RL	MB	LCS	LCSD	B14W	B14W Duplicate
Date analyzed	(ug/L)	04/20/18	04/20/18	04/20/18	04/20/18	04/20/18
n-Propylbenzene	1.0	nd			nd	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3,5-Trimethylbenzene	1.0	nd			nd	nd
tert-Butylbenzene	1.0	nd			nd	nd
1,2,4-Trimethylbenzene	1.0	nd			nd	nd
sec-Butylbenzene	1.0	nd			nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
Isopropyltoluene	1.0	nd			nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
n-Butylbenzene	1.0	nd			nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Naphthalene	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%	95%	95%	114%	117%
Toluene-d8	105%	96%	94%	103%	107%
4-Bromofluorobenzene	96%	88%	101%	95%	95%

Data Qualifiers and Analytical Comments

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

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Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Arsenic (As) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	4/24/2018	nd	nd	nd	nd	nd
B14@3'	4/24/2018	11	nd	58	11	nd
B14@8'	4/24/2018	nd	nd	45	59	nd
Reporting Limits		5.0	1.0	5.0	5.0	0.5

QA/QC Data - Total Metals EPA-6020

Sample Number: QC Batch							
	Laboratory Control Sample			Laboratory Control Sample Duplicate			RPD (%)
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
Lead	100	100	100	100	103	103	3.0
Cadmium	100	101	101	100	101	101	0.0
Chromium	100	110	110	100	113	113	2.7
Arsenic	100	108	108	100	109	109	0.9
Mercury	10.0	9.34	93	10.0	9.63	96.3	3.1

ACCEPTABLE RECOVERY LIMITS FOR LABORATORY CONTROL SAMPLES: 80%-120%
 ACCEPTABLE RPD IS 20%

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Total Metals in Water by EPA-6020 Method

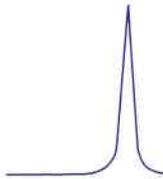
Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Cadmium (Cd) (ug/L)	Chromium (Cr) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	4/24/2018	nd	nd	nd	nd	nd
B14W	4/24/2018	5.0	nd	21	20	nd
B14W Duplicate	4/24/2018	4.2	nd	27	21	nd
Reporting Limits		2.0	2.0	10	2.0	1.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

	Laboratory Control Sample			Laboratory Control Sample Duplicate			RPD (%)
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	20.0	16.3	81.5	20.0	17.2	86.0	5.37
Cadmium	20.0	17.0	85.0	20.0	17.6	88.0	3.47
Chromium	20.0	17.6	88.0	20.0	18.9	94.5	7.12
Arsenic	20.0	17.8	89.0	20.0	18.8	94.0	5.46
Mercury	2.00	1.76	88.0	2.00	1.83	91.5	3.90

ACCEPTABLE RECOVERY LIMITS FOR LABORATORY CONTROL SAMPLES: 80%-120%
 ACCEPTABLE RPD IS 20%



SPECTRA Laboratories

...Where experience matters

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

04/26/2018

ESN Northwest
1210 Eastside St SE
Suite 200
Olympia, WA 98501
Attn: Julie Woods

Project: H&H Diesel
Sample Matrix: Solid
Date Sampled: 04/18/2018
Date Received: 04/19/2018
Spectra Project: 2018040657

<u>Client ID</u>	<u>Spectra #</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
B14 @ 3'	1	Ethylene Glycol	<100	mg/Kg	GC-FID
B14 @ 8'	2	Ethylene Glycol	<100	mg/Kg	GC-FID
B14 W	3	Ethylene Glycol	<10	mg/L	GC-FID

SPECTRA LABORATORIES



Jeffrey Cooper, Laboratory Manager

aj/bjn

