

Phase II Environmental Site Assessment

Conducted on:

Plum Street Chevron

1018 Plum Street SE

Olympia, Washington 98501

Facility/Site ID: 25489377

Prepared for:

Mr. Satnam "Sonny" Singh MJMG Group, LLC 1018 Plum Street SE Olympia, Washington 98501

Prepared & Reviewed by:

Rebecca Dilba, R.S.A. Staff Geologist

AEG Project #: 16-121

Date of Report: May 24, 2016

Hydrogeologist 2635
SCOTT I ROSE

Scott Rose L.H.G. Senior Hydrogeologist

TABLE OF CONTENTS

1.0 I	NTRODU	CTION	1
1.1 1.2		D VICINITY AREA BACKGROUNDDLOGY AND HYDROGEOLOGY	
2.0	OBJECTIV	VES AND SCOPE OF WORK	3
3.0 H	FIELD ME	ETHODOLOGY	4
3.1 3.2 3.3	QUALITY	O GROUNDWATER SAMPLING PROCEDURES	4
4.0 A	ANALYTI	CAL RESULTS	6
4.1 4.2		SULTS WATER RESULTS	
5.0	CONCLUS	SIONS AND RECOMMENDATIONS	7
5.1 5.2		SIONS IENDATIONS	
6.0 I	LIMITATI	IONS	8
7.0 F	REFEREN	[CES	9
		<u>FIGURES</u>	
Figure	e 1:	Vicinity Map	
Figure	e 2:	Site Map	
		<u>TABLES</u>	
Table	1:	Summary of Soil Results	
Table	2:	Summary of Groundwater Results	

APPENDICES

Appendix A: Site Photographs

Appendix B: Supporting Documents:

Boring Logs

Laboratory Datasheets

1.0 INTRODUCTION

Associated Environmental Group, LLC (AEG) has completed a Phase II Environmental Site Assessment (ESA) at Plum Street Chevron Gas Station, located at 1018 Plum Street, Olympia, Washington 98501, (the Site). The Phase II ESA included advancing seven borings surrounding the current underground storage tanks (USTs), the dispensers and canopy, and along the downgradient property boundary. The objective of this Phase II ESA was to address comments noted by the Washington State Department of Ecology (Ecology) in an opinion letter dated March 17, 2006, as well as to investigate the recognized environmental conditions (RECs) noted by Aerotech Environmental Consulting in their Phase I ESA, dated December 18, 2015.

1.1 Site and Vicinity Area Background

The Site is located northeast of the intersection of Plum Street SE and Union Avenue SE. The 0.93-acre parcel is listed with the Thurston County assessor's office as tax parcel #78204200100. The Site is developed as a Chevron gas retailer with a small kiosk under the fueling canopy. The Site also includes a convenience store, an auto repair shop (Trusted Choice Auto Care Specialists, Inc.), and a drive-thru espresso stand (Island Espresso II), which occupy separate structures adding up to about 7,200 square feet of building space. The Ecology UST Database indicates that the Site has four operational USTs and one Exempt UST. Tank one through four are 10,000-gallon tanks containing unleaded gasoline. The fifth tank is a 750-gallon tank containing heating fuel. The USTs are located east of the fuel dispensers.

The Site is bounded to the north by the Yashiro Japanese Garden; to the east by professional office buildings, to the south by Union Avenue SE, a 76 branded fuel station, and a Les Schwab Tire store; and to the west by Plum Street SE and professional office buildings. Figure 1, *Vicinity Map*, presents the general vicinity of the Site. The Site's current layout can be seen in Figure 2, *Site Map*.

1.2 Site Geology and Hydrogeology

According to the Natural Resources Conservation Service (NRCS) website under "Thurston County Area", the Site and vicinity consists of Xerorthents, a tidal deposit that has degraded to the point where no more minerals can weather to daughter forms, 0-5 percent slopes. A typical soil profile consist of Xerorthents from 0 to 60 inches below ground surface (bgs). These soils are derived from Sandy and Loamy cut and fill materials, likely from the adjacent unit Yelm fine sandy loam. This soil is somewhat excessively drained and has a medium capacity to transmit water in the most limiting layer, with an approximate depth to water being 2 feet.

605 11TH AVENUE • OLYMPIA, WA • 98501-2363 Phone: 360.352.9835 • Fax: 360.352.8164 • Email: <u>admin@aegwa.com</u>

1

Soils encountered at the Site during the Phase II ESA consisted of brown gravelly sand, which was likely a fill material imported for structural purposes, from 0 to 2 feet bgs, to alternating deposits of sands and silts from 2 to 15 feet bgs throughout the Site. The total depth of each boring ranged approximately from 10 to 15 feet. Groundwater was encountered at approximately 9 feet bgs at the time of drilling.

2.0 OBJECTIVES AND SCOPE OF WORK

AEG was retained to perform a Phase II ESA at the Site. AEG advanced seven borings from 10 to 15 feet to evaluate the subsurface for the presence of petroleum-based contaminants, (gasoline and diesel fuel, and heavy oil). These borings surrounded the current UST areas to the limits of the property; refer to Figure 2, *Site Map*.

Specific tasks performed included:

- Conducting both public and private utilities locates for the Site and vicinity. The public rights of way locates were performed by the Underground Utilities Locate Center; Applied Professional Services, Inc. (APS) provided private utility locates for the Site;
- Advancing seven borings to a depth of 10 to 15 feet bgs at select locations on the Site, using a Geoprobe® direct-push drilling rig;
- Continuously logging the subsurface media during the investigation, to observe and document soil lithology, color, moisture content, and sensory evidence of impairment;
- Collecting soil and groundwater samples for laboratory analyses at various depths, based on the field observations;
- Transporting and submitting the selected soil samples to Environmental Services Network NW, Inc. (ESN), a Washington State certified analytical laboratory, for analyses;
- Completing data analysis of laboratory analytical results and comparing data to Ecology's Model Toxics Control Act (MTCA) Method A cleanup levels for soil and groundwater;
- Containing investigation-derived wastes, including soil cuttings and decontamination
 wash fluids, in a 16-gallon steel drum, and storing it on Site awaiting the results of
 laboratory analyses; and
- Preparing this report presenting final documentation of the field activities and methodologies, and summarizing the analytical results, conclusions, and recommendations.

3.0 FIELD METHODOLOGY

On April 20, 2016, AEG supervised the advancement of seven soil borings (B-1, B-2, B-3, B-4, B-5, B-6, and B-7) at the Site. The borings were advanced to a maximum depth of 15 feet bgs via a Geoprobe[®] direct-push drilling rig operated by Environmental Services Network NW, Inc. (ESN) of Olympia, Washington. The borings were located around the operational USTs and dispenser islands. Soil samples were collected during drilling and field screened for laboratory analyses. The locations of the boreholes and Site features are illustrated in Figure 2, *Site Map*. Photographs from the investigation are presented in Appendix A, *Site Photographs*.

3.1 Soil and Groundwater Sampling Procedures

Soil sampling methods for this work followed the protocols established by Ecology and the U.S. Environmental Protection Agency (EPA). To minimize volatile organic constituent (VOC) losses, soil sampling and field preservation methods for VOCs followed methods set forth by EPA's Method 5035A and Ecology's guidance, "Collecting and Preparing Soil Samples for VOC Analysis". Soil samples were collected from the boreholes via continuous soil cores in an acetate sleeve inside the drilling rod's core barrel. Soils were observed to document soil lithology, color, moisture content, and sensory evidence of contamination. After advancement to the total depth, a groundwater sample were collected from all soil borings.

For the April 20, 2016 subsurface investigation, a total of 18 soil samples and seven one-time groundwater samples were transferred to ESN, in Olympia, Washington, following industry standard chain-of-custody procedures. Boring logs and laboratory analytical results are provided in Appendix B, *Supporting Documents*, *Boring Logs*, *Laboratory Datasheets*.

3.2 Quality Controls

To ensure that quality information was obtained at the site:

- All soil and groundwater samples were collected in general accordance with industry protocols for the collection, documentation, and handling of samples;
- Descriptions of soil sampling depths were carefully logged in the field; the driller and Site geologist confirmed sample depths as soil samples were collected;
- Nitrile gloves were used in handling all sampling containers and sampling devices;
- The sampling equipment was scrubbed with Alconox detergent and rinsed with water prior to each sample extracted.; The drilling equipment was steam cleaned before and after each boring.
- Soil samples were tightly packed into jars to eliminate sample headspace;

- Groundwater samples were filled to eliminate sample headspace in the form of bubbles;
- Upon sampling, all samples were placed immediately into chilled ice chests; and
- The samples were transported under a chain-of-custody to the ESN analytical laboratory in Olympia, Washington, for analysis.

The laboratory provided standard quality assurance/quality control (QA/QC) which included:

- Surrogate recoveries for each sample;
- Method blank results;
- Duplicate analyses, matrix or blank spiked analyses; and
- Duplicate spiked analyses.

3.3 Investigation Derived Waste

Investigation-derived waste for this project consisted of soil cuttings from the subsurface exploration activities and decontamination water from decontamination of the drilling core barrel and associated equipment. These wastes were separated and placed in a U.S. Department of Transportation (DOT)-approved 16-gallon drum. The drum was stored on Site for subsequent characterization and disposal.

4.0 ANALYTICAL RESULTS

Selected soil samples were analyzed for:

- Gasoline-range TPH by Northwest Method NWTPH-Gx;
- BTEX by EPA Method 8260/5035;
- Gasoline Range Organics (GRO) Suite, per MTCA Table 830-1; and
- Waste Oil Suite, per MTCA Table 830-1.

All analytical results were compared to MTCA Method A cleanup levels. Copies of the laboratory analytical results are provided in Appendix B, Supporting Documents, *Laboratory Datasheets*.

4.1 Soil Results

Analytical results of the soil samples **did not indicate** the presence of the constituents of concern above the MTCA Method A cleanup levels. Table 1, *Summary of Soil Results*, presents the soil analytical results.

4.2 Groundwater Results

Analytical results of the groundwater samples **did not indicate** the presence of the constituents of concern above the MTCA Method A cleanup levels. Table 2, *Summary of Groundwater Results*, presents the groundwater analytical results.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations derived during the subsurface assessment activities at the Site are as follows:

5.1 Conclusions

Based on the findings from this investigation, AEG concludes that:

- Soil contamination was not detected above MTCA Method A cleanup levels in any of the soil samples analyzed from the seven boreholes to a depth of 15 feet bgs.
- Groundwater contamination **was not detected** above MTCA Method A cleanup levels in any of the groundwater samples collected during drilling.

5.2 Recommendations

Based on the analytical results, AEG recommends:

• That the Site be entered into Ecology's Voluntary Cleanup Program (VCP) and a request be submitted to Ecology for a "No Further Action" (NFA) opinion letter for Site closure.

6.0 LIMITATIONS

This report summarizes the findings of the services authorized under our agreement with Mr. Satnam "Sonny" Singh of MJMG Group, LLC. It has been prepared using generally accepted professional practices, related to the nature of the work accomplished. This report was prepared for the exclusive use of Mr. Singh and his designated representatives for the specific application to the project purpose.

Recommendations, opinions, Site history, and proposed actions contained in this report apply to conditions and information available at the time this report was completed. Since conditions and regulations beyond our control can change at any time after completion of this report, or our proposed work, we are not responsible for any impacts of any changes in conditions, standards, practices, and/or regulations subsequent to our performance of services. We cannot warrant or validate the accuracy of information supplied by others, in whole or part.

7.0 REFERENCES

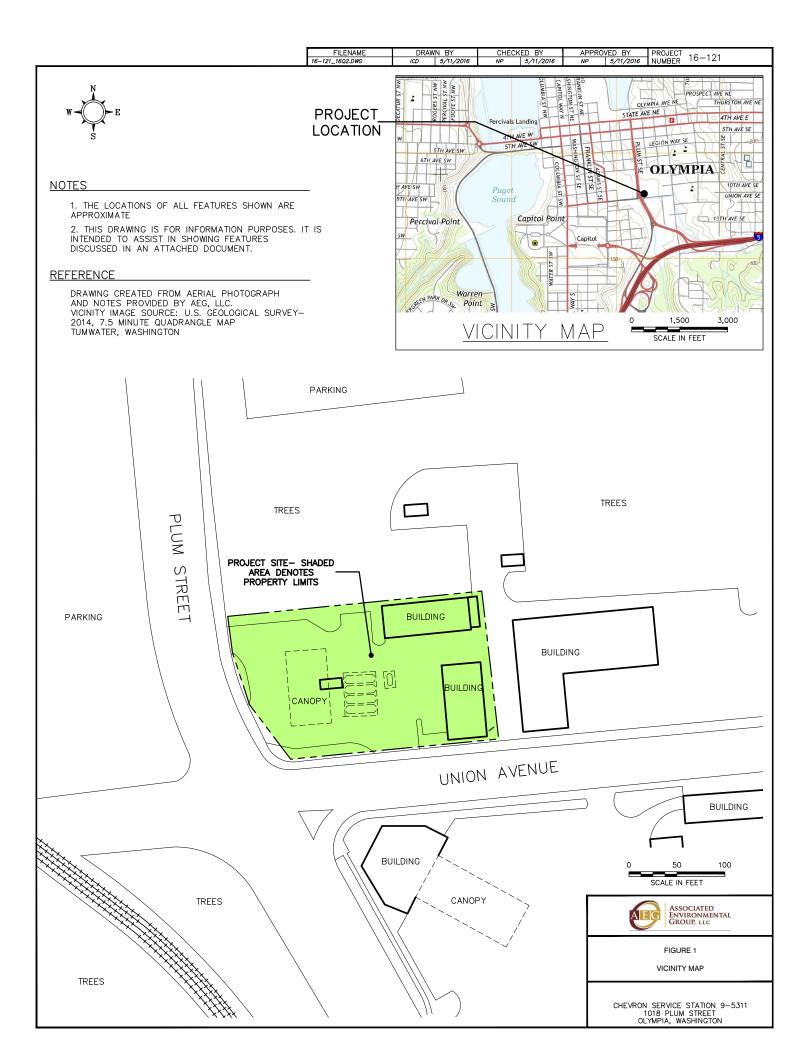
American Society for Testing and Materials (ASTM) Standard E 1903-97. Standard Guide Environmental Site Assessments: Phase II Environmental Site Assessment Process.

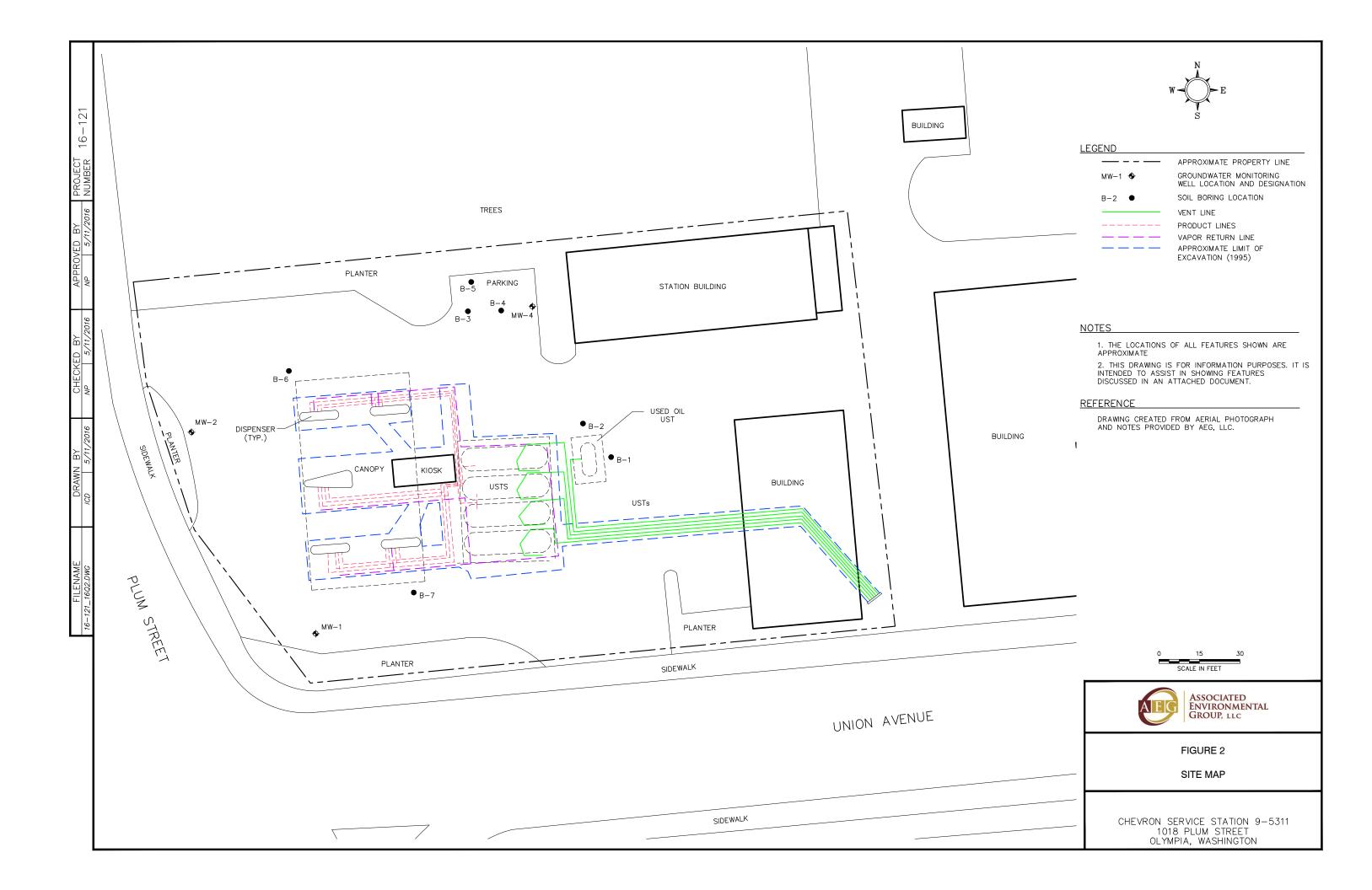
Washington State Department of Ecology, 2004, *Collecting and Preparing Soil Samples for VOC Analysis*, Implementation Memorandum #5.

Washington State Department of Ecology, 2007, *Model Toxic Control Act Statute and Regulation – Chapter 173-340 WAC*, Publication number 94-06 (Revised November 2007).

USDA, Website, <u>websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>, Soil Map for the Site, Accessed 6/2/2015.

FIGURES





TABLES

Table 1 - Summary of Soil Results

Plum Street Chevron Olympia, Washington

	Sample				V	olatile Orgar	nic Compoun	ds			Gasoline	Diesel	Lube Oil			
Sample Number	Depth (feet)	Date Collected	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDC	EDB	Total Naphthalenes	MTBE	Range Organics	Range Organics	Range Organics	Total cPAHs	PCBs	Total Lead
B1-10	10	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	-	< 0.05	<10	< 50	<100	< 0.02	< 0.2	-
B1-5	5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	-	< 0.05	<10	< 50	<100	< 0.02	< 0.2	5.5
B2-8.5	8.5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	-	< 0.05	28	< 50	<100	< 0.02	< 0.2	-
B2-12	12	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	-	< 0.05	<10	< 50	<100	< 0.02	< 0.2	8.0
B3-5	5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B3-10	10	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	< 0.02	< 0.05	15	-	-	-	-	< 5.0
B3-12	12	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	< 0.02	< 0.05	<10	-	-	-	-	6.0
B4-5	5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B4-10	10	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B5-5	5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B5-8.5	8.5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B6-4	4	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	-	-	-	<10	-	-	-	-	-
B6-7	7	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	< 0.02	< 0.05	<10	-	-	-	-	< 5.0
B6-10	10	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	< 0.05	< 0.005	< 0.02	< 0.05	<10	-	-	-	-	< 5.0
B7-4.5	4.5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	1	-	-	-	<10	-	-	-	-	-
B7-6.5	6.5	4/20/2016	< 0.02	< 0.05	< 0.05	< 0.15	-	•	-	-	<10	-	-	-	_	-
	PQL		0.02	0.05	0.05	0.15	0.05	0.005	0.02/0.05	0.05	10	50	100	0.02	0.2	5.0
MTCA Metho	od A Cleanu	p Level	0.03	7	6	9	NA	0.005	5	0.1	30*	2000	2000	0.1	1	250

Notes:

All results are in milligrams per kilograms (mg/kg)

- -- = Not analyzed for this constituent
- < = Not detected above laboratory limits
- * TPH-Gasoline Cleanup Level with the presence of Benzene anywhere at the Site

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

EDC = 1,2-Dichloroethane EDB = Ethylene Dichloride

 $MTBE = Methyl \ Tert\text{-}Butyl \ Ether$

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

PCBs = Polychlorinated biphenyls

NA = Method A cleanup level has not been established

Table 2 - Summary of Groundwater Results

Plum Street Chevron Olympia, Washington

	Date			Volat	ile Organic	Compoun	ds			Gasoline	Diesel	Oil Range	Total		
Sample Number	Collected	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDC	EDB	Total Naphthalenes	MTBE	Range Organics	Range Organics	Organics	cPAHs	PCBs	Total Lead
B1-W	4/20/16	<1.0	<1.0	<1.0	< 3.0	<1.0	< 0.005	< 0.1	<1.0	<100	<250	< 500	< 0.1	< 0.1	2.7
B2-W	4/20/16	<1.0	<1.0	2.4	< 3.0	1	< 0.005	68	<1.0	630	<250	< 500	< 0.1	< 0.1	< 2.0
B3-W	4/20/16	<1.0	<1.0	<1.0	< 3.0	<1.0	< 0.005	< 0.1	<1.0	<100	-	-	-	-	< 2.0
B4-W	4/20/16	<1.0	<1.0	<1.0	< 3.0	ı	-	-	-	<100	-	-	-	-	-
B5-W	4/20/16	<1.0	<1.0	<1.0	< 3.0	-	-	-	-	<100	-	-	-	-	-
B6-W	4/20/16	<1.0	<1.0	<1.0	<3.0	<1.0	< 0.005	< 0.1	<1.0	<100	-	-	-	-	< 2.0
B7-W	4/20/16	<1.0	<1.0	<1.0	< 3.0	ı	-	-	-	<100	-	-	-	-	-
PQL		1.0	1.0	1.0	3.0	1.0	0.005	0.1	1.0	100	250	500	0.1	0.1	2.0
MTCA Method A Clea	nup Levels	5.0	1,000	700	1,000	5.0	0.01	160	20	800 ¹	500	500	0.1	0.1	15

Notes:

All results are 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

¹TPH-Gasoline Cleanup Level with the presence of Benzene anywhere at the Site

EDC = 1,2-Dichloroethane

EDB = Ethylene Dichloride

MTBE = Methyl Tert-Butyl Ether

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

PCBs = Polychlorinated biphenyls

APPENDIX A

Site Photographs



Project No.: 16-121 Project Name: Plum Street Chevron

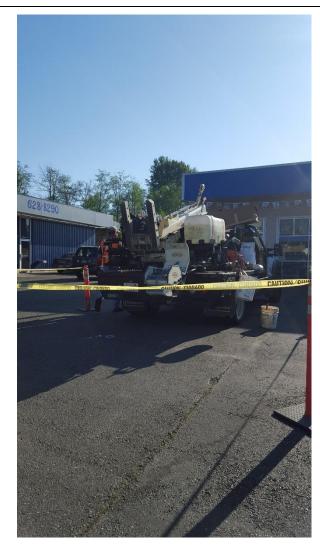




Photo #1:

Location of B-1, situated east of the used oil tank.

#2:

Photo Soil cuttings from B-1. No visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron



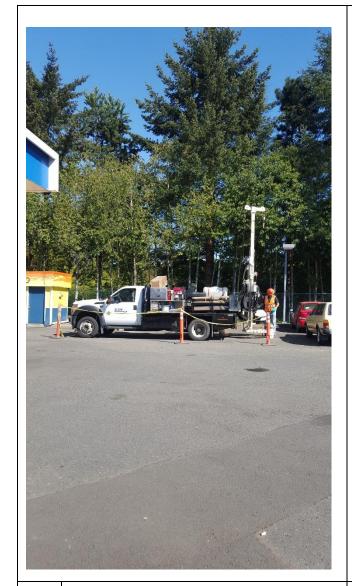


Photo Location of B-2, situated due north of the used oil #2:

Photo Soil cuttings from B-2. Visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron



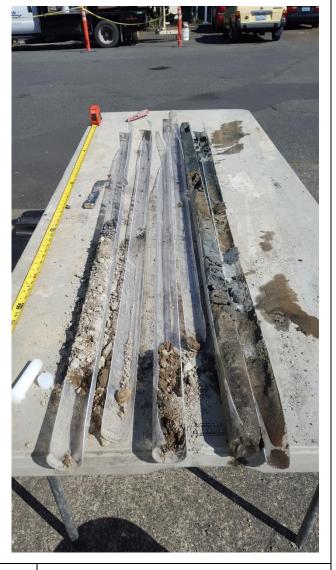


Photo #5:

Location of B-3, situated the west of MW-4

#6:

Photo Soil cuttings from B-3. Visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron





Photo #7:

Location of B-4, situated west of MW-4.

#8:

Photo Soil cuttings from B-4. No visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron

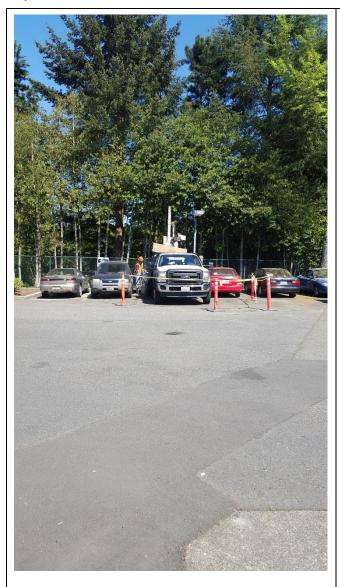




Photo Location of B-5, situated north of B-3 due to visible #9: contamination observed in B-3.

#10:

Photo Soil cuttings from B-5. No visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron





Photo #11:

Location of B-5, located northeast of MW-2.

#12:

Photo Soil cuttings from B-6. No visible contamination was observed.



Project No.: 16-121 Project Name: Plum Street Chevron

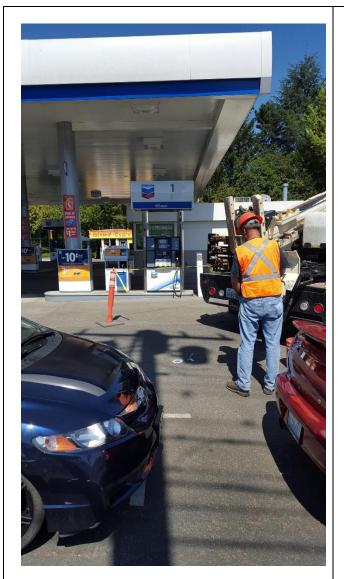




Photo #13:

Location of B-7. Situated to the northeast of MW-1.

#14:

Photo Soil cuttings from B-7. No visible contamination was observed.

APPENDIX B

Supporting Documents

Boring Logs

Laboratory Datasheets





PRO.	JECT: Plum Street Chevron			JOB#	16-121		BORING #	B-1		PAGE 1 OF 1
Loca	tion: 1018 Plum Street, Olympia, WA			Appro	ximate Ele	vation:				
Subc	ontractor / Driller: ESN/Don			Equip	ment / Drill	ing Meth	od: GeoPr	obe/Dire	ect Pus	h
Date	e: April 20, 2016			Logge	d By:	B. Dilba				
Boring Depth (feet)	Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	6" of asphalt underlain by;		1			8:52	N/A			
			3							
5	Brown, moist, medium dense, <u>SAND with GRAVEL</u> ; fine to medium grain sand, fine grain gravel.	SP	5		B1-5	8:55		0		
			6							
			7							
			8							
			9						No	
10	Brown, moist, medium dense, <u>SAND</u> ; fine to medium grain sand.	SM	10		B1-10	8:59		0		

Explanation

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





Subcontractor / Driller: Date: April 2 the description of a sphalt underla	Soil Description	Unified Soil Symbol	Sample	E	quipn	d By:		od: GeoPro		ect Pus	:h
Date: April 2 the decrease of the property of the province of	Soil Description	Unified Soil Symbol	Sample	L	.ogged	d By:				ect Pus	ih
6" of asphalt underla Brown, moist, mediu	Soil Description	Unified Soil Symbol	Sample				B. Dilba	+			
6" of asphalt underla Brown, moist, mediu		Unified Soil Symbol	Sample	pth	ery			t	<u></u>		
Brown, moist, mediu	ain by;) De	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
				1			9:26	N/A			
Brown, moist, stiff, S	um dense, <u>SAND</u> ; fine to medium grain sand.	SM		2							
Brown, moist, stiff, S				3					3.9		
	SILT	ML		4							
5			_	5			9:27		0		
at 5.0 feet; Gray				6							
				7							
				8					6.1		
Gray, wet, medium o	dense, <u>SAND</u> ; fine to medium grain sand.			9						No	
10		SM	_	<u>1</u> 0			9:31		0		Odor from 8.0 to 10.0 feet
				11							
				12					0		
Gray, wet, medium s	stiff, <u>SILT</u>	ML		13							
	dana CAND En la madina maio and			14							
Gray, wet, medium d	dense, <u>SAND</u> ; fine to medium grain sand	SM		15			9:33			î.	1

Explanation

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





PRO.	JECT:	Plum Street Chevron				JOB #	16-121		BORING #	# B-3		PAGE 1 OF 1
Loca	tion:	1018 Plum Street, Olympia, WA				Approx	kimate Ele	vation:				
Subc	ontractor / D	Priller: ESN/Don				Equipn	nent / Dril	ling Metho	od: GeoPı	obe/Dir	ect Pus	sh
Date	ə:	April 20, 2016				Logge	d By:	B. Dilba				
Boring Depth (feet)		Soil Description	Unified Soil Symbol	Sample	Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	6" of asphalt	underlain by;			1			10:11	N/A			
					2							
					3					0		
	Brown, moist	loose, <u>GRAVELLY SAND</u> ; fine to medium grain sand.	GM		4							
5	1		Olvi		5			10:13		0		
J	1			_	6							
	1				7							
	_				8							
	-				9							
10	-				10	T		10:17		43.8	No	Slight odor at
10	Gray, wet, m	edium dense, <u>SAND</u> ; fine to medium grain sand.	SM	-								10'
	_				11							
	Gray, wet, me	edium stiff, <u>SILT</u>	ML		12							
	-				13	\dashv						
	Gray, wet, me	edium dense, <u>SAND</u> ; fine to medium grain sand	SM	\vdash	14			10:25		0		
15		Total Donth - 15 foot	OIVI		15			10.23		U		

Explanation

∐ s

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





PRO.	JECT: Plum Street Chevron			JOB#	16-121		BORING #	B-4		PAGE 1 OF 1
Loca	tion: 1018 Plum Street, Olympia, WA			Appro	ximate Ele	vation:				
Subc	contractor / Driller: ESN/Don			Equip	nent / Drill	ing Meth	od: GeoPr	obe/Dir	ect Pus	h
Date	e: April 20, 2016			Logge	d By:	B. Dilba				
Boring Depth (feet)	Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	6" of asphalt underlain by;		1			11:00	N/A			
5	Brown, moist, medium dense, <u>SAND with GRAVEL</u> ; fine to medium grain sand, fine grain gravel.	S₽	2 3 4 5 6 7 8		B4-5	11:01		0	No	
10	at 9.0 feet; wet		10		B4-10	11:05		0		

Explanation

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





PRO.	JECT:	Plum Street Chevron			JOB#	16-121		BORING #	B-5		PAGE 1 OF 1
Loca	tion:	1018 Plum Street, Olympia, WA			Appro	ximate Elev	ation:				
Subc	ontractor /	Driller: ESN/Don			Equip	ment / Drilli	ng Meth	od: GeoPr	obe/Dir	ect Pus	sh
Date) :	April 20, 2016			Logge	d By:	B. Dilba				
Boring Depth (feet)		Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
5	-	t underlain by; st, stiff, <u>SILT with GRAVEL; fine to medium grain gravel</u>	ML	1 2 3 4 5		B5-5	11:39	N/A	0		
	Gray, moist,	vet		8		B5-8.5			0	No	
10	Gray, wet, n	nedium dense, <u>SAND</u> ; medium grain sand	SM	10			11:45		0		

Explanation

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





PRO.	IECT: Plum Street Chevron			JOB#	16-121		BORING #	B-6		PAGE 1 OF 1
Loca	tion: 1018 Plum Street, Olympia, WA			Appro	ximate Elev	vation:				
Subc	ontractor / Driller: ESN/Don			Equip	ment / Drilli	ing Meth	od: GeoPr	obe/Dire	ect Pus	h
Date	: April 20, 2016			Logge	d By:	B. Dilba				
Boring Depth (feet)	Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	6" of asphalt underlain by;		1			12:07	N/A			
			2							
	Brown, moist, medium dense, <u>GRAVELLY SAND</u> ; fine to medium dense sand, fine to medium grain gravel.		4		B6-4			0		
5		SP	5			12:09				
	Gray, moist, medium dense, <u>SAND</u> ; medium grain sand.	SM	6							
			7		B6-7			56.7	No	Slight odor
	at 7.0 feet; wet		8							
	Gray, wet stiff, <u>SILT</u>	ML	9							
10			10		B6-10	12:13		0		

Explanation

 \mathbb{I}

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement





PRO.	JECT:	Plum Street Chevron			JOB#	16-121		BORING #	B-7		PAGE 1 OF 1
Loca	tion:	1018 Plum Street, Olympia, WA			Appro	ximate Ele	vation:				
Subc	ontractor / D	riller: ESN/Don			Equip	ment / Drill	ing Meth	od: GeoPr	obe/Dir	ect Pus	sh
Date) :	April 20, 2016			Logge	ed By:	B. Dilba				
Boring Depth (feet)		Soil Description	Unified Soil Symbol	Sample Depth	Sample Recovery	Sample Number	Time	Blows/Foot	PID Reading	Sheen	Observations
	6" of asphalt ι	underlain by;		1			12:49	N/A			
	Gravelly whit	te fill		2							
	Gray, moist, s	tiff, <u>SILT with GRAVEL</u>	SM	3							
				4		B7-4.5			0		
5				5			12:51				
	at 5.0 feet; tra	ace organics		6							
	at 6.5 feet; we	et		7		B7-6.5			0	No	
				8							
	Gray, wet, loo	ise, <u>SAND</u> ; fine grain sand	SM	9							
10				10			12:55		0		

Explanation

Sample Advance / Recovery



No Recovery

---- Contact located approximately



Groundwater level at time of drilling or date of measurement

May 3, 2016

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



Dear Ms. Dilba:

Please find enclosed the analytical data report for the Plum Street Chevron in Olympia, Washington. Probe services were conducted on April 20, 2016. Soil and water samples were analyzed for Gasoline by NWTPH-Gx, BTEX by Method 8260, WO Suite and GRO Suite on April 22 - 28, 2016.

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,

Anisa Harnden

Drilling Manager

1210 Eastside Street SE, Suite 200 ■ Olympia, Washington 98501 ■ 360.459.4670 ■ FAX 360.459.3432 Web Site: www.esnnw.com

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax 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	4/25/2016	4/25/2016	93	nd	nd
LCS	4/25/2016	4/25/2016	122	110%	
B1-10	4/25/2016	4/25/2016	76	nd	nd
B1-5	4/25/2016	4/25/2016	69	nd	nd
B2-8.5	4/25/2016	4/25/2016	106	nd	nd
B2-12	4/25/2016	4/25/2016	101	nđ	nd
Reporting Limits				50	100

[&]quot;---" Indicates not tested for component.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 50% TO 150%

[&]quot;nd" Indicates not detected at the listed detection limits.

ESN NORTHWEST CHEMISTRY LABORATORY

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(ug/L)	(ug/L)
Method Blank	4/27/2016	4/27/2016	86	nd	nd
LCS	4/27/2016	4/27/2016	91	114%	
B1-W	4/27/2016	4/27/2016	108	nd	nd
B1-W Duplicate	4/27/2016	4/27/2016	128	nd	nd
B2-W	4/27/2016	4/27/2016	115	nd	nd
Reporting Limits				250	500

[&]quot;---" Indicates not tested for component.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 50% TO 150%

[&]quot;nd" Indicates not detected at the listed detection limits.

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

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

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	4/25/2016	4/25/2016	nd	nd	nd	nd	nd	71
LCS	4/25/2016	4/25/2016	97%	76%	100%	99%	97%	67
LCSD	4/25/2016	4/25/2016	83%	75%	101%	107%		66
B3-5	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	74
B4-5	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	71
B4-10	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	70
B5-5	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	71
B5-5 Duplicate	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	71
B5-8.5	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	70
	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	69
B6-4	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	70
B7-6.5	4/20/2016	4/25/2016	nd	nd	nd	nd	nd	70
B7-4.5	4/20/2010	4/23/2010	na	na	-14			
Reporting Limits			0.02	0.05	0.05	0.15	10	

[&]quot;---" Indicates not tested for component."

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

[&]quot;nd" Indicates not detected at the listed detection limits.

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	4/26/2016	4/26/2016	109	nd
LCS	4/26/2016	4/26/2016	101	76%
B1-10	4/20/2016	4/25/2016	108	nd
B1-5	4/20/2016	4/25/2016	104	nd
B2-8.5	4/20/2016	4/25/2016	101	28
B2-12	4/20/2016	4/28/2016	105	nd
Reporting Limits				10

[&]quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	4/26/2016	4/26/2016	109	nd
LCS	4/26/2016	4/26/2016	101	76%
B3-10	4/20/2016	4/25/2016	102	15
B3-12	4/20/2016	4/25/2016	108	nd
B3-12 Duplicate	4/20/2016	4/25/2016	104	nd
B6-10	4/20/2016	4/25/2016	101	nd
B6-7	4/20/2016	4/25/2016	101	nd
Reporting Limits				10

[&]quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

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

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Analyzed	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Recovery (%)
Method Blank	4/22/2016	nd	nd	nd	nd	nd	103
LCS	4/22/2016	105%	107%	104%	109%	120%	97
B4-W	4/22/2016	nd	nd	nd	nd	nd	103
B5-W	4/22/2016	nd	nd	nd	nd	nd	109
B7-W	4/22/2016	nd	nd	nd	nd	nd	105
B7-W Duplicate	4/22/2016	nd	nd	nd	nd	nd	103
Reporting Limits		1.0	1.0	1.0	3.0	100	

[&]quot;nd" Indicates not detected at the listed detection limits.

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

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analyses of Gasoline Range Organics in Water by Method NWTPH-Gx

Sample	Date	Surrogate	Gasoline Range Organics
Number	Analyzed	Recovery (%)	(ug/L)
Method Blank	4/22/2016	103	nd
LCS	4/22/2016	100	120%
B3-W	4/22/2016	99	nd
B6-W	4/22/2016	107	nd
Reporting Limits			100

[&]quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analyses of Gasoline Range Organics in Water by Method NWTPH-Gx

Sample	Date	Surrogate	Gasoline Range Organics
Number	Analyzed	Recovery (%)	(ug/L)
Method Blank	4/22/2016	103	nd
LCS	4/22/2016	100	120%
B1-W	4/22/2016	100	nd
B2-W	4/22/2016	105	630
Reporting Limits			100

[&]quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

[&]quot;int" Indicates that interference prevents determination.

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 8260/5035

	RL	MB	LCS	B1-10	B1-5	B2-8.5	B2-12
Date extracted		04/26/16	04/26/16	04/20/16	04/20/16	04/20/16	04/20/16
Date analyzed	(mg/Kg)	04/26/16	04/26/16	04/26/16	04/26/16	04/26/16	04/28/16
% Moisture				11%	9%	21%	36%
Dichlorodifluoromethane	0.05	nd		nd	nd	nd	nd
Chloromethane	0.05	nd		nd	nd	nd	nd
Vinyl chloride	0.02	nd	110%	nd	nd	nd	nd
Bromomethane	0.05	nd		nd	nd	nd	nd
Chloroethane	0.05	nd		nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd		nd	nd	nd	nd
Acetone	0.25	nd		nd	nd	nd	nd
Hexane	0.05	nd		nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	92%	nd	nd	nd	nd
Methylene chloride	0.05	nd		nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd		nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd		nd	nd	nd	nd
Chloroform	0.05	nd	94%	nd	nd	nd	nd
Bromochloromethane	0.05	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd		nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd		nd	nd	nd	nd
Carbon tetrachloride	0.05	nd		nd	nd	nd	nd
Benzene	0.02	nd	80%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	82%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	86%	nd	nd	nd	nd
Dibromomethane	0.05	nd		nd	nd	nd	nd
Bromodichloromethane	0.05	nd		nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd
Toluene	0.05	nd	75%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd		nd	nd	nd	nd
2-Hexanone	0.25	nd		nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd		nd	nd	nd	nd
Dibromochloromethane	0.05	nd		nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	80%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.005	nd		nd	nd	nd	nd
Chlorobenzene	0.05	nd	79%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd
Ethylbenzene	0.05	nd	72%	nd	nd	nd	nd
Xylenes	0.15	nd	75%	nd	nd	nd	nd
Styrene	0.05	nd		nd	nd	nd	nd
Bromoform	0.05	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd
Isopropylbenzene	0.05	nd		nd	nd	nd	nd
	0.00	110		110	114	1104	114
1,2,3-Trichloropropane	0.05	nd		nd	nd	nd	nd

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 8260/5035

	RL	MB	LCS	B1-10	B1-5	B2-8.5	B2-12
Date extracted		04/26/16	04/26/16	04/20/16	04/20/16	04/20/16	04/20/16
Date analyzed	(mg/Kg)	04/26/16	04/26/16	04/26/16	04/26/16	04/26/16	04/28/16
% Moisture				11%	9%	21%	36%
D	0.05						
n-Propylbenzene	0.05	nd		nd	nd	nd	nd
2-Chlorotoluene	0.05	nd		nd	nd	nd	nd
4-Chlorotoluene	0.05	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd		nd	nd	nd	nd
tert-Butylbenzene	0.05	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd		nd	nd	nd	nd
sec-Butylbenzene	0.05	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd		nd	nd	nd	nd
Isopropyltoluene	0.05	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd		nd	nd	nd	nd
n-Butylbenzene	0.05	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd		nd	nd	nd	nd
Naphthalene	0.05	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd		nd	nd	nd	nd
Surrogate recoveries							- 1110/
Dibromofluoromethane		108%	119%	91%	97%	89%	93%
Toluene-d8		97%	87%	102%	104%	95%	96%
4-Bromofluorobenzene		109%	89%	108%	104%	100%	105%

Data Qualifiers and Analytical Comments

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

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 Water by Method 8260

Analytical Results

Analytical Results			1.00	D4 337	D2 337
	RL	MB	LCS	B1-W	B2-W 04/22/16
Date analyzed	(ug/L)	04/22/16	04/22/16	04/22/16	04/22/16
Dichlorodifluoromethane	1.0	nd		nd	nd
Chloromethane	1.0	nd		nd	nd
Vinyl chloride	0.2	nd	78%	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
Hexane	1.0	nd		nd	nd
	1.0	nd	83%	nd	nd
1,1-Dichloroethene	1.0	nd	0370	nd	nd
Methylene chloride	1.0	nd		nd	nd
Methyl-t-butyl ether (MTBE)	1.0	nd		nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd
1,1-Dichloroethane	10.0	nd		nd	nd
2-Butanone (MEK)		nd		nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd
2,2-Dichloropropane	1.0	nd	120%	nd	nd
Chloroform	1.0		12070	nd	nd
Bromochloromethane	1.0	nd		nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd
1,2-Dichloroethane (EDC)	1.0	nd a		nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd
Carbon tetrachloride	1.0	nd	1050/		nd
Benzene	1.0	nd	105%	nd	nd
Trichloroethene (TCE)	1.0	nd	112% 104%	nd nd	nd
1,2-Dichloropropane	1.0	nd	104%	nd d	nd
Dibromomethane	1.0	nd		nd	
Bromodichloromethane	1.0	nd		nd	nd nd
4-Methyl-2-pentanone (MIBK)	1.0	nd		nd	nd
cis-1,3-Dichloropropene	1.0	nd	1050/	nd	nd
Toluene	1.0	nd	107%	nd	nd
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	115%	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd
Chlorobenzene	1.0	nd	113%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd
Ethylbenzene	1.0	nd	104%	nd	2.4
Xylenes	3.0	nd	109%	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	3.5
1,2,3-Trichloropropane	1.0	nd		nd	nd
Bromobenzene	1.0	nd		nd	nd

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 Water by Method 8260

Analytical Results

	RL	MB	LCS	B1-W	B2-W
Date analyzed	(ug/L)	04/22/16	04/22/16	04/22/16	04/22/16
n-Propylbenzene	1.0	nd		nd	13
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	1.9
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	6.8
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd
Naphthalene	1.0	nd		nd	4.1
Hexachloro-1,3-butadiene	1.0	nd		nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd
Surrogate recoveries					
Dibromofluoromethane		104%	111%	101%	95%
Toluene-d8		98%	100%	102%	100%
4-Bromofluorobenzene		103%	97%	100%	104%

Data Qualifiers and Analytical Comments

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

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 8260

Analytical Results

		MTH BLK	LCS	B3-10	B3-12	B6-10	B6-7
Date extracted	Reporting	04/26/16	04/26/16	04/20/16	04/20/16	04/20/16	04/20/16
Date analyzed	Limits	04/26/16	04/26/16	04/26/16	04/26/16	04/26/16	04/26/16
Moisture, %	(mg/kg)			18%	22%	5%	23%
1,2-Dichloroethane (EDC)	0.05	nd	105%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.005	nd	76%	nd	nd	nd	nd
n-hexane	0.05	nd	ns	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	ns	nd	nd	nd	nd
Benzene	0.02	nd	80%	nd	nd	nd	nd
Toluene	0.05	nd	75%	nd	nd	nd	nd
Ethylbenzene	0.05	nd	72%	nd	nd	nd	nd
Xylenes	0.05	nd	75%	nd	nd	nd	nd
Surrogate recoveries:							
Dibromofluoromethane		108%	119%	92%	94%	91%	87%
Toluene-d8		97%	97%	99%	100%	101%	96%
4-Bromofluorobenzene		109%	89%	101%	108%	100%	100%

Data Qualifiers and Analytical Comments

ns-not spiked

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, 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 Water by Method 8260

Analytical Results

		RL	MTH BLK	LCS	B3-W	B6-W
Date analyzed		(ug/L)	04/22/16	04/22/16	04/22/16	04/22/16
1,2-Dichloroetha	ne (EDC)	1.0	nd	131%	nd	nd
n-hexane		1.0	nd	ns	nd	nd
Methyl-t-butyl et	her (MTBE)	1.0	nd	ns	nd	nd
Benzene		1.0	nd	105%	nd	nd
Toluene		1.0	nd	107%	nd	nd
Ethylbenzene		1.0	nd	104%	nd	nd
Xylenes		3.0	nd	109%	nd	nd
Surrogate recover	ries:					
Dibromofluorom			104%	111%	100%	111%
Toluene-d8			98%	100%	101%	99%
4-Bromofluorobe	enzene		103%	97%	98%	106%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limitsns-not spiked

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Total Lead in Soil by Method 6020A/3050B

Sample	Date	Date	Lead (Pb)
Number	Prepared	Analyzed	(mg/kg)
Method Blank	4/22/2016	4/25/2016	nd
B3-10	4/22/2016	4/25/2016	nd
B3-12	4/22/2016	4/25/2016	nd
B3-12 Duplicate	4/22/2016	4/25/2016	6.0
B6-10	4/22/2016	4/25/2016	nd
B6-7	4/22/2016	4/25/2016	nd
Reporting Limit			5.0

[&]quot;nd" Indicates not detected at listed detection limits.

QA/QC Data - Analysis of Total Metals in Soil by Method 6020A/3050B

Sample Number: QC Batch							
			е	Matr	ix Spike Du	RPD	
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb)	68.3	58.2	85.2	76.6	67.3	87.9	3.06

	Labora	Laboratory Control Sample						
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)					
Lead (Pb)	100	108	108					

Associated Environmental Group

PLUM STREET CHEVRON PROJECT

Client Project #16-121

Olympia, Washington

ESN Northwest

1210 Eastside Street SE Suite 200

Olympia, WA 98501

(360) 459-4670

(360) 459-3432 Fax

lab@esnnw.com

EDB ANALYSIS BY EPA METHOD 8011

SAMPLE	DATE DATE	DATE	EDB	SURROGATE	REPORTING	DETECTION	
NUMBER	SAMPLED EXTRACTED	ANALYZED	(ug/L)	RECOVERY(%)	LIMIT	LIMIT	FLAGS
Method Blank	- 4/27/2016	4/27/2016	nd	87%	0.03	0.004	, e , e e e
B1-W	4/20/2016 4/27/2016	4/27/2016	nd	94%	0.03	0.005	
B2-W	4/20/2016 4/27/2016	4/27/2016	nd	MI	0.03	0.005	

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65% - 135%

MI: Matrix interference prevents quantifying surrogate.

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	0.10
Measured Conc.	
% Recovery	67.0%
Spike Added	0.10
Measured Conc.	0.07
% Recovery	70.0%
RPD	
IVI. D	4.4%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: B6-W

Spike Added 0.13 Measured Conc. 0.08 % Recovery 65.0%

[%] Recovery LIMITS: 80% TO 120% RPD LIMIT: 20%

Associated Environmental Group

PLUM STREET CHEVRON PROJECT

Client Project #16-121

Olympia, Washington

ESN Northwest

1210 Eastside Street SE Suite 200

Olympia, WA 98501

(360) 459-4670 (360) 459-3432 Fax

lab@esnnw.com

EDB ANALYSIS BY EPA METHOD 8011

SAMPLE	DATE DATE	DATE EDB	SURROGATE REPORTII	NG DETECTION
NUMBER	SAMPLED EXTRACTED	ANALYZED (ug/L)	RECOVERY(%) LIMIT	LIMIT FLAGS
Method Blank	- 4/27/2016	4/27/2016 nd	87% 0.03	0.004
B3-W	4/20/2016 4/27/2016	4/27/2016 nd	101% 0.03	0.005
B3-W Duplicate	4/20/2016 4/27/2016	4/27/2016 nd	78% 0.03	0.005
B6-W	4/20/2016 4/27/2016	4/27/2016 nd	83% 0.03	0.005

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65% - 135%

MI: Matrix interference prevents quantifying surrogate.

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	0.10
Measured Conc.	0.07
% Recovery	67.0%
Spike Added	0.10
Measured Conc.	0.07
% Recovery	70.0%
RPD	4.4%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: B6-W

 Spike Added
 0.13

 Measured Conc.
 0.08

 % Recovery
 65.0%

% Recovery LIMITS: 80% TO 120%

RPD LIMIT: 20%

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Naphthalenes in Soil by Method 8270

Analytical Results

2 Maily trout 1 cosumo					Salas S		
		MTH BLK	LCS	B3-10	B3-12	B6-10	B6-7
Date extracted	Reporting	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16
Date analyzed	Limits	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16
Moisture, %	(mg/kg)			11%	20%	21%	36%
Naphthalene	0.02	nd	112%	nd	nd	nd	nd
2-Methylnaphthalene	0.02	nd	109%	nd	nd	nd	nd
1-Methylnaphthalene	0.02	nd	ns	nd	nd	nd	nd
Surrogate recoveries:							
2-Fluorobiphenyl		82%	148%	95%	89%	120%	118%
p-Terphenyl-d14		84%	145%	101%	98%	103%	98%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte

nd - not detected at listed reporting limits

ns - not spiked

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Naphthalenes in Water by Method 8270

Analytical Results

		the second and the second		 4 3 4 5 1 12 	
	Reporting	MTH BLK	LCS	B3-W	B6-W
Date extracted	Limits	04/28/16	04/28/16	04/27/16	04/27/16
Date analyzed	(ug/L)	04/28/16	04/28/16	04/28/16	04/28/16
Naphthalene	0.1	nd	110%	nd	nd
2-Methylnaphthalene	0.1	nd	108%	nd	nd
1-Methylnaphthalene	0.1	nd	ns	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		72%	76%	74%	81%
p-Terphenyl-d14		70%	67%	90%	95%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte

nd - not detected at listed reporting limits

ns - not spiked

Acceptable Recovery limits: 50% TO 150%

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270

Analytical Results

			MTH BLK	LCS	B1-10	B1-5	B2-8.5	B2-12	MS	MSD	RPD
Date extracted	R	eporting	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	
Date analyzed		Limits	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	04/25/16	15.1
Moisture, %		(mg/kg)			11%	9%	21%	36%			
Naphthalene		0.02	nd	112%	nd	المست					
2-Methylnaphthalene		0.02	nd	109%	nd	nd nd	nd nd	nd			
1-Methylnaphthalene		0.02	nd	10976 ns	nd	nd	nd	nd			
Acenaphthylene		0.02	nd	121%	nd	nd nd	nd	nd d			
Acenaphthene		0.02	nd	132%	nd	nd	nd	nd d	0007	000/	407
Fluorene		0.02	nd	148%	nd	nd	nd nd	nd d	92%	88%	4%
Phenanthrene		0.02	nd	100%	nd	nd	nd	nd nd			
Anthracene		0.02	nd	109%	nd	nd	nd	nd nd			
Fluoranthene		0.02	nd	127%	nd	nd	nd	nd			
Pyrene		0.02	nd	119%	nd	nd	nd	nd	79%	72%	9%
Benzo(a)anthracene*		0.02	nd	99%	nd	nd	nd	nd	1970	1270	970
Chrysene*		0.02	nd	116%	nd	nd	nd	nd			
Benzo(b)fluoranthene*		0.02	nd	84%	nd	nd	nd	nd			
Benzo(k)fluoranthene*		0.02	nd	107%	nd	nd	nd	nd			
Benzo(a)pyrene*		0.02	nd	84%	nd	nd	nd	nd			
Indeno(1,2,3-cd)pyrene*		0.02	nd	85%	nd	nd	nd	nd			
Dibenzo(a,h)anthracene*	k	0.02	nd	109%	nd	nd	nd	nd			
Benzo(ghi)perylene		0.02	nd	106%	nd	nd	nd	nd			
					A.C.	1,					*****
Total Carcinogens					nd	nd	nd	nd			
Surrogate recoveries:	5.35										
2-Fluorobiphenyl			82%	148%	92%	78%	108%	87%	72%	69%	
p-Terphenyl-d14	:		84%	145%	68%	63%	97%	93%	65%	62%	

Data Qualifiers and Analytical Comments

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

^{* -} Carcinogenic Analyte

nd - not detected at listed reporting limits

ns - not spiked

Associated Environmental Group PLUM STREET CHEVRON PROJECT Client Project #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Polynuclear Aromatic Hydrocarbons in Water by Method 8270

Analytical Results

	Reporting	MTH BLK	LCS	B1-W	B2-W
Date extracted	Limits	04/27/16	04/27/16	04/27/16	04/27/16
Date analyzed	(ug/L)	04/27/16	04/27/16	04/27/16	04/27/16
Naphthalene	0.1	nd	112%	nd	14
2-Methylnaphthalene	0.1	nd	112%	nd	34
1-Methylnaphthalene	0.1	nd	ns	nd	20
Acenaphthylene	0.1	nd	128%	nd	nd
Acenaphthene	0.1	nd	126%	nd	nd
Fluorene	0.1	nd	132%	nd	nd
Phenanthrene	0.1	nd	101%	nd	nd
Anthracene	0.1	nd	106%	nd	nd
Fluoranthene	0.1	nd	121%	nd	nd
Pyrene	0.1	nd	109%	2.1	1.6
Benzo(a)anthracene*	0.1	nd	60%	nd	nd
Chrysene*	0.1	nd	129%	nd	nd
Benzo(b)fluoranthene*	0.1	nd	73%	nd	nd
Benzo(k)fluoranthene*	0.1	nd	75%	nd	nd
Benzo(a)pyrene*	0.1	nd	84%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.1	nd	139%	nd	nd
Dibenzo(a,h)anthracene*	0.1	nd	97%	nd	nd
Benzo(ghi)perylene	0.1	nd	95%	nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		75%	148%	89%	88%
p-Terphenyl-d14		78%	138%	99%	103%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

ns - not spiked

Acceptable Recovery limits: 50% TO 150%

^{* -} Carcinogenic Analyte

Associated Environmental Group

PLUM STREET CHEVRON PROJECT

Client Project #16-121

Olympia, Washington

ESN Northwest

1210 Eastside Street SE Suite 200

Olympia, WA 98501

(360) 459-4670 (360) 459-3432 Fax

lab@esnnw.com

PCB ANALYSES OF SOILS BY EPA 8082 MODIFIED

SAMPLE	DATE	DATE	DATE	PCB-101	6 PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	SURROGATE	FLAGS
NUMBER	SAMPLED	EXTRACTED	ANALYZED	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	RECOVERY(%)	1944. <u>. 194</u>
Method Blank	-	4/26/2016	4/26/2016	nd	nd	nd	nd	nd	nd	nd	110%	
B1-10	4/20/2016	4/26/2016	4/28/2016	nd	nd	nd	nd	nd	nd	nd	66%	
B1-5	4/20/2016	4/26/2016	4/28/2016	nd	nd	nd	nd	nd	nd	nd	109%	
B2-8.5	4/20/2016	4/26/2016	4/28/2016	nd	nd	nd	nd	nd	nd	nd	80%	
B2-12	4/20/2016	4/26/2016	4/28/2016	nd	nd	nd	nd	nd	nd	nd	88%	
B2-12 Duplicate	4/20/2016	4/26/2016	4/28/2016	nd	nd	nd	nd	nd	nd	nd	104%	
				er ander gering.								
PQL/MDL				0.10	0.20	0.20	0.05	0.05	0.05	0.05		

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65% - 135%

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	
Measured Conc.	
% Recovery	95.6

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: 0109 K-1

Spike Added		00
Measured Conc.	0.0 (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18) (1.18)	
% Recovery	보고, 하는 사람이 보는 사람들이 83.1% 그렇게 하는 사람들이 되었다. 하는 사람들이 하는 사람들이 함께 94.	2%
Spike Added		00
Measured Conc.). ()	96
% Recovery		5%
RPD	3.3%	1%

% Recovery LIMITS: 80% TO 120%

RPD LIMIT: 20%

Associated Environmental Group

PLUM STREET CHEVRON PROJECT

Client Project #16-121

Olympia, Washington

ESN Northwest

1210 Eastside Street SE Suite 200

Olympia, WA 98501

(360) 459-4670 (360) 459-3432 Fax

lab@esnnw.com

PCB ANALYSES OF WATERS BY EPA 8082 MODIFIED

SAMPLE NUMBER	DATE SAMPLE	DATE D EXTRACTED	DATE ANALYZED	PCB-1016 (ug/L)	PCB-1221 (ug/L)	PCB-1232 (ug/L)	PCB-1242 (ug/L)	PCB-1248 (ug/L)	PCB-1254 (ug/L)	PCB-1260 (ug/L)	SURROGATE RECOVERY(%)	FLAGS
Method Blank	-	4/28/2016	4/28/2016	nd	108%							
B1-W	4/20/201	6 4/28/2016	4/28/2016	nd	102%							
B1-W Duplicate	4/20/201	6 4/28/2016	4/28/2016	nd	98%							
B2-W	4/20/201	6 4/28/2016	4/28/2016	nd	MI							
		<u> 1979 – 19</u>										
PQL / MDL		11	26 25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	- A	

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65% - 135%

MI: Matrix interference prevents quantifying surrogate.

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added Measured Conc. % Recovery		2.00 1.82 90.8%	2.00 1.91 95.5%
Spike Added Measured Conc. % Recovery		2.00 1.77 88.5%	2.00 1.73 86.4%
RPD		2.6%	10.0%
QA/QC DATA - MATRIX SPIK	E ANALYSES		
Sample Name: B2-W			
Spike Added Measured Conc. % Recovery		2.00 2.03 101.4%	2.00 2.08 104.0%

% Recovery LIMITS: 80% TO 120%

RPD LIMIT: 20%

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Analysis of Total Lead in Soil by Method 6020A/3050B

Sample	Date	Date	Lead (Pb)
Number	Prepared	Analyzed	(mg/kg)
Method Blank	4/22/2016	4/25/2016	nd
B1-10	4/22/2016	4/25/2016	nd
B1-5	4/22/2016	4/25/2016	nd
B1-5 Duplicate	4/22/2016	4/25/2016	5.5
B2-8. 5	4/22/2016	4/25/2016	nd
B2- 12	4/22/2016	4/25/2016	8.0
Reporting Limit			5.0

[&]quot;nd" Indicates not detected at listed detection limits.

QA/QC Data - Analysis of Total Metals in Soil by Method 6020A/3050B

Sample Number: QC Batch			v. 1870			1
	Matrix Spike	e	Matrix Spike Duplicate			RPD
Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead (Pb) 68.3	58.2	85.2	76.6	67.3	87.9	3.06

H-W-W-M	Labora	atory Control	Sample
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead (Pb)	100	108	108

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Total Lead in Water by EPA-6020 Method

Sample	Date	Lead (Pb)
Number	Analyzed	(ug/L)
Method Blank	4/25/2016	nd
B1-W	4/25/2016	2.7
B2-W	4/25/2016	nd
B2-W Duplicate	4/25/2016	nd
Reporting Limits		2.0

[&]quot;nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

	Laboratory Control Sample	Laboratory Control Sample Duplicate	RPD
	Spiked Measured Spike Conc. Conc. Recovery (ug/L) (ug/L) (%)	Spiked Measured Spike Conc. Conc. Recovery (ug/L) (ug/L) (%)	(%)
Lead	(ug/L) (ug/L) (%) 20.0 22.0 110	20.0 23.1 116	4.88

Associated Environmental Group PROJECT PLUM STREET CHEVRON PROJECT #16-121 Olympia, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

Total Lead in Water by EPA-6020 Method

	100	
Sample	Date	Lead (Pb)
Number	Analyzed	(ug/L)
Method Blank	4/25/2016	nd
B3-W	4/25/2016	nd
B6-W	4/25/2016	nd
Reporting Limits	3	2.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

	Labo	ratory Control	Sample	Laboratory (Control Sample	Duplicate	RPD
	Spiked Conc.	Measured Conc.	Spike Recovery	Spiked Conc.	Measured Conc.	Spike Recovery	
	(ug/L)	(ug/L)	(%)	(ug/L)	(ug/L)	(%)	(%)
Lead	20.0	22.0	110	20.0	23.1	116	4.88

ESN	Environmental
NORTHWEST, INC.	Services Network

CHAIN-OF-CUSTODY RECORD

													DATE: PAGE OF															
ADDRESS: 605	DDRESS: 60511 Ave SE, Suk 201, Olympiax														PROJECT NAME: Plum Stroes Churon													
PHONE: (3607)	HONE: (360) 350 9835 FAX: 11) TRE														PROJECT NAME: Plum Street Churon LOCATION: 1018 Plum Street													
CLIENT PROJECT #: 16-121 PROJECT MANAGER: B. 1010a															LLE		* (p)(A/2)2	ALC: NO.		2 4 6	DATE OF 4/2011							
CLILITI I ROSLCI M.	-			MOJECT WINIVAGEN.											- /.		_		7	7	-	COLLECTION:						
82	70 A	Jap	Sample	Container	AMAL	E 10 10 10 10 10 10 10 1		dine	2000	20/20/20/20/20/20/20/20/20/20/20/20/20/2	of delight	202			SO WAY	20/20/20	etals	peso d	old Cold	o Sill M	e sire		/			ac damin	of Containers Laboratory Note Number	
Sample Number	Depth	Time	Туре	Туре	12	/2/2	×/ &	<i></i>	5/30	1/5		120	1	%	2/2	1	1	9/6	9/3	2/2	0/	/	/	NOTES		100	of Co	
1. 161-5	5	085	Soll	VOALIME					12-00-01-00											X								
2. 131-10	10	0059	1	1		1												No.		X					R I			
2. BI-10 3. B2-5	5	0927	1			1		1	1									1		X			17	,				
4. 132-8.5	8.5	0931				7					+	1			1			*		X		,						
5. Ba - 12	12	1939								\dashv	\top				1					X						1000		
6. B3-5	5	1013								+	7/ 1		139					X						Hold			+	
7. B3-16	10	1017					1			-	744		The same					X						1100				
8. 33-12	12	1025										Trail.	13	01				X									+	
9. 34 5	5	1101	1	1198 10		X	X				1							-							* T. T.			
10. By-16	10	1105	/		100	X	X			\dashv	1				4.1	5.4												
11. 135-5	5	114	/			X	X					10	(8)	121		1	1											
	8.5	1145				X	X																		September 1			
13. B6-4	4	1209																X	100									
14. B6-7	7	1213																X										
15. 136-10	10	1213				X	X							1				1									1	
16. 137-45	4.5	1251				X	X											17									1	
17. 137-6.5	6.5	1255	1	1	ALCON I	X	×			401																-		
17. 137-6.5 18. BI-W	-	0908		72-4	100							1						1	12	X								
RELINQUISHED BY (Signatur	e)	DAT	E/TIME	RECE	D	ATE/	TIME			SAMPLE RECEIPT										LABORATORY NOTES:								
a.	100 1	335	1	ula	u	1	7	TOTA	AL NU	MBE	R OF	CON	TAIN	ERS														
1	1		7/10/16				CHAI	CHAIN OF CUSTODY SEALS Y/N/NA																				
RELINQUISHED BY (Signatur	re)	DAT	E/TIME	RECE	IVED B	Y (Signa	ture)		D	ATE/	TIME	: (SEAL	ALS INTACT? Y/N/NA														
		and a second		1 may (9.2)									RECE	IVED	G00	D CC	ND.,	/COL)							(1	
NOTE											TES:									Turn Around Time: 24 HR 48 HR 5 DAY								

1210 Eastside Street SE, Suite 200 Olympia, Washington 98501

Phone: 360-459-4670 Fax: 360-459-3432

Website: www.esnnw.com

E-Mail: info@esnnw.com

ESN	Environmental
NORTHWEST, INC.	Services Network

CHAIN-OF-EUSTODY RECORD

CLIENT: AFG	ENT: AEG DA														ATE	:	4/	20	1	16			P/	AGE	1	0)F				
ADDRESS: 605															_ DATE: 4/20/16 PAGE OF 1 _ PROJECT NAME: Plum Sheet Cheuron																
PHONE 360	HONE: (360) 350-9835 FAX.																												-		
CLIENT DD OLEGE #															LOCATION: 1018 pum street, oly, up														-		
CLIENT PROJECT #	CLIENT PROJECT #: 16-121 PROJECT MANAGER: B. Dilby														COLLECTOR: B. Dilne DATE OF COLLECTION: 20/16														0		
					entainer Type Rt.									/	18	36/35	135	/	12	/	/	/	/	2 8 8							
			Sample	Container	an	1 / X			3	13		6/10	8)/4	10/8 20/8	8/2	Se S	10/5	inerals	Special Contraction of the contr		8/33 80/3	10/X	0/	/					lumbe	of Containers Laboratory	nmbe
Sample Number	Depth	Time	Туре	Туре	18	×/2	2/2	*/	50/3		9/	seril a		À/3	3%	28/2	3/	0/5	38/	2/	32/3	o Suit	/	/	NO	TES			otal	f Con	lote N
1. B2-W	marketing.	6945	420																18		X						1		-	91-	-
2. B3-W 3. B4-W		1637						4-											X									11 11 1	+	+	
		1113	(· ·	X	X					1.0				M			18				9	11.7					+	\dashv
4. B5-W		1153				WATER AND ADDRESS OF THE PARTY	X	×											7.										+	+	-
5. BU-W	-	1235	/														- 1		X	The last								17-95			4
4. 35-W 5. 06-W 6. βナール 7. 8. 9.	1	1302					X	×			13			114											10.37		- 725			-	
7.							1							10.5				76.1							X (1) (8)					+	\dashv
8.		3.70			13 1	1						3/1							75											+	
9.																														+	\dashv
10.				A SHIP (A)																						12				+	\dashv
11.														40																+	\dashv
12.			Total 4					Mg.			1		6.7				54.1									4 1 2			+	+	\dashv
12. 13.	47.0	HP I				4.					4.1				100		7											3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00		+	-
14.	15	191		la verti													To a little			7				5 (PO)						+	10/1
15.			DUTT		La Kita	100					7:11						100							17							
16.				- Na Standard Street	0	1	4				R.																	graphic to		+	-
17.		170	· The	A VAND																										+	
18.		173			1				*		14 .							100											+	+	\dashv
RELINQUISHED BY (Signatur	e)	DAT	E/TIME	RECEI	VED	BY (S	ignat	ture)	1	1	DATE	/TIM	1E		SAMPLE RECEIPT										LABORATORY NOTES:						
A-	5 /	And and What TOT										TAL NUMBER OF CONTAINERS																			
RELINQUISHED BY (Signatur	e)	DAT	E/TIME	RECEI											IN OF CUSTODY SEALS Y/N/NA S INTACT? Y/N/NA																
				Lest" Line		- 100	-B.101				JAIL.	-/ 1114	_		EIVED GOOD COND./COLD																
1210 Factorida Starrat CF C ::	NOTES												100										Turn Aro	und Ti	me: 24	HR 48	HR	5 DA	Y		

1210 Eastside Street SE, Suite 200 Olympia, Washington 98501 Phone: 360-459-4670 Fax: 360-459-3432

Website: www.esnnw.com E-Mail: info@esnnw.com