



GALLOWAY ENVIRONMENTAL, INC

15600 NE 8th Street, Suite B1, 617 (425) 894-8607
Bellevue, WA 98008
Dylan@GallowayEnvironmental.com

June 25, 2021

Tamarah Hancock
Scarsella Bros. Inc.
PO Box 68697
Seattle, Washington 98168

Emailed to: Tamarah.k@scarsellabros.com and Jenifer.m@scarsellabros.com

**SUBJECT: SUMMARY STATUS REPORT — GROUNDWATER MONITORING WELL SAMPLE RESULTS
AT THE FIRWOOD PIT PROPERTY IN EDGEWOOD, WA
SEPA PROJECT #1808 – CLEAR AND GRADE PERMIT #3492**

Dear Ms. Hancock:

This letter report presents a summary of Galloway Environmental, Inc.'s (GEI's) findings from the groundwater monitoring event at the Firwood Pit property for May 2021.

The scope of work for this quarterly groundwater monitoring report is generally based on the City of Edgewood's Final Conditions for Firwood Pit Reclamation – Original SEPA project #1808, Clear and Grade Permit #3492 which was updated on November 26, 2018 and your direction. This report generally includes: 1) chemical analytical results of water samples, and 2) physical properties of groundwater in the monitoring wells.

INTRODUCTION

The Firwood Mine was a sand and gravel surface mine that was exhausted of its aggregate resource before March 1, 2000 when it was assigned and leased to Scarsella Bros., Inc. by the Tim Corliss and Son Company and is now in the reclamation process. The mine is located in the general area east of Freeman Road, adjacent to the west side of 90th Avenue East, south of 33rd Street East, and northeast of Simons Creek. The Site is in the City of Edgewood, Pierce County, Washington.

GROUNDWATER SAMPLE COLLECTION SUMMARY

On May 28, 2021, GEI collected groundwater samples from monitoring wells MW-1, MW-2, MW-3b, and MW-4. Prior to sample collection, GEI gauged and purged the wells to attain groundwater samples that were representative of the site.

During the purging process for the monitoring wells, water quality parameters were measured using a multiparameter water quality meter (model YSI 556 MPS) to measure pH, temperature, conductivity, and dissolved oxygen (DO). The YSI 556 MPS meter was calibrated prior to well purging using a 3-point pH calibration process (pH valued at 4.02, 7.02, and 10.04) and a 3-point conductivity process (conductivity valued at 84 micrograms per centimeter [$\mu\text{g}/\text{cm}$], 1,413 $\mu\text{g}/\text{cm}$, and 12,880 $\mu\text{g}/\text{cm}$). Additionally, to quantify turbidity throughout the purging process, GEI utilized a turbidity meter (model Lamotte #2020T).

Sample collection was initiated upon attaining stabilized water quality parameters, including pH within 0.1 SU, conductivity within 5%, and temperature within 0.1 degrees Celsius ($^{\circ}\text{C}$) for at least three consecutive readings.

The pH measured at the conclusion of the purging process ranged from 6.91 (MW-4) to 7.40 (MW-2). The conductivity measured at the conclusion of the purging process ranged from 0.400 milliSiemens per

centimeter (mS/cm) (MW-2) to 0.625 mS/cm (MW-3b). The DO measured at the conclusion of the purging process ranged from 2.62 milligrams per liter (mg/L) (MW-3b) to 6.82 mg/L (MW-2). Turbidity measured at the conclusion of the purging process ranged from 1.19 Nephelometric Turbidity Units (NTU) (MW-2) to 3.75 NTU at MW-4. The water color was observed to be clear in all wells at the conclusion of the purging process. GEI purged a minimum of three well volumes from each well, or until water quality parameters were stabilized.

GEI purged a total of 5.5 gallons from MW-1, 3.5 gallons from MW-2, 5.5 gallons from MW-3b, and 3.5 gallons from MW-4.

GROUNDWATER SAMPLE ANALYSES SUMMARY

All samples were submitted to OnSite Environmental, Inc., located at 14648 NE 95th St., Redmond, Washington (OnSite Environmental) for analyses of petroleum hydrocarbons using the Northwest Total Petroleum Hydrocarbons as Hydrocarbon Identification (NWTPH-HCID) method, polycyclic aromatic hydrocarbons (PAHs) using the United States Environmental Protection Agency (USEPA) method 8270E/SIM, and dissolved arsenic using the USEPA method 200.8.

Because the initial NWTPH-HCID laboratory analyses detected the presence of total petroleum hydrocarbons as lube oil (TPH-Oil) in the sample that was collected from MW-1, the sample was further analyzed to quantify concentrations of TPH-Oil in the sample using the Northwest Total Petroleum Hydrocarbons as Diesel Extended (NWTPH-Dx) method.

Below is a summary of the laboratory analytical results. Attachment 1 includes the laboratory analytical report for this monitoring event.

Laboratory analyses resulted in the detection of TPH-Oil (as lube oil range organics) in the sample that was collected from MW-1 at a concentration of 0.30 mg/L, below the Washington States Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Cleanup Level of 0.50 mg/L.

Laboratory analyses resulted in no other detections of analytes at concentrations equal to or exceeding their respective laboratory practical quantitation limits (PQLs) in any of the samples analyzed.

As per the City of Edgewood's Final Conditions for the Clear and Grade Permit (#3492), petroleum hydrocarbon compounds and dissolved arsenic will be tested quarterly; and PAHs will be tested annually.

Should you have any questions regarding this report or if you would like to discuss our findings, please contact us at any of the addresses listed on top of this letter.

Respectfully Submitted,
GALLOWAY ENVIRONMENTAL, INC.



Dylan Galloway, REA
President

cc: Jenifer A. Morrison, SBI

Attachment 1
Laboratory Analytical Reports



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 9, 2021

Dylan Galloway
Galloway Environmental, Inc.
15600 NE 8th Street
Suite B1, 617
Bellevue WA 98008

Re: Analytical Data for Project 28027
Laboratory Reference No. 2105-282

Dear Dylan:

Enclosed are the analytical results and associated quality control data for samples submitted on May 28, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2021
Samples Submitted: May 28, 2021
Laboratory Reference: 2105-282
Project: 28027

Case Narrative

Samples were collected on May 28, 2021 and received by the laboratory on May 28, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: June 9, 2021
 Samples Submitted: May 28, 2021
 Laboratory Reference: 2105-282
 Project: 28027

HYDROCARBON IDENTIFICATION NWTPH-HCID

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	05-282-01					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	6-1-21	6-3-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Lube Oil Range Organics	Detected	0.20	NWTPH-HCID	6-1-21	6-3-21	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	90	50-150				

Client ID:	MW-2					
Laboratory ID:	05-282-02					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	6-1-21	6-3-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Lube Oil Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	91	50-150				

Client ID:	MW-3b					
Laboratory ID:	05-282-03					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	6-1-21	6-2-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-2-21	
Lube Oil Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-2-21	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	88	50-150				

Client ID:	MW-4					
Laboratory ID:	05-282-04					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	6-1-21	6-3-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Lube Oil Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	85	50-150				



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**HYDROCARBON IDENTIFICATION
 NWTPH-HCID
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601W1					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	6-1-21	6-3-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
Lube Oil Range Organics	ND	0.20	NWTPH-HCID	6-1-21	6-3-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				



Date of Report: June 9, 2021
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PAHs EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	05-282-01					
Naphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluorene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Phenanthrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Anthracene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluoranthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Pyrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Chrysene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	67	25 - 106				
Pyrene-d10	85	28 - 104				
Terphenyl-d14	88	40 - 139				



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 Project: 28027

PAHs EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-2					
Laboratory ID:	05-282-02					
Naphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluorene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Phenanthrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Anthracene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluoranthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Pyrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Chrysene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	48	25 - 106				
Pyrene-d10	80	28 - 104				
Terphenyl-d14	82	40 - 139				



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PAHs EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		MW-3b				
Laboratory ID:		05-282-03				
Naphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Acenaphthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Fluorene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Phenanthrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Anthracene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Fluoranthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Pyrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Chrysene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	40	25 - 106				
Pyrene-d10	68	28 - 104				
Terphenyl-d14	74	40 - 139				



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 Project: 28027

PAHs EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-4					
Laboratory ID:	05-282-04					
Naphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Acenaphthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Fluorene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Phenanthrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Anthracene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Fluoranthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Pyrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Chrysene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	6-2-21	6-3-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	59	25 - 106				
Pyrene-d10	65	28 - 104				
Terphenyl-d14	82	40 - 139				



Date of Report: June 9, 2021
 Samples Submitted: May 28, 2021
 Laboratory Reference: 2105-282
 Project: 28027

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Acenaphthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluorene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Phenanthrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Anthracene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Fluoranthene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Pyrene	ND	0.10	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Chrysene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[j,k]fluoranthene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	6-2-21	6-2-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	65	25 - 106				
Pyrene-d10	85	28 - 104				
Terphenyl-d14	109	40 - 139				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0602W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.295	0.290	0.500	0.500	59	58	29 - 96	2	38	
Acenaphthylene	0.361	0.363	0.500	0.500	72	73	42 - 101	1	28	
Acenaphthene	0.338	0.323	0.500	0.500	68	65	37 - 104	5	31	
Fluorene	0.365	0.389	0.500	0.500	73	78	48 - 101	6	21	
Phenanthrene	0.385	0.421	0.500	0.500	77	84	52 - 104	9	20	
Anthracene	0.362	0.410	0.500	0.500	72	82	50 - 106	12	20	
Fluoranthene	0.435	0.450	0.500	0.500	87	90	56 - 113	3	20	
Pyrene	0.554	0.441	0.500	0.500	111	88	55 - 123	23	27	
Benzo[a]anthracene	0.442	0.469	0.500	0.500	88	94	60 - 131	6	20	
Chrysene	0.439	0.487	0.500	0.500	88	97	62 - 120	10	20	
Benzo[b]fluoranthene	0.447	0.493	0.500	0.500	89	99	63 - 123	10	20	
Benzo(j,k)fluoranthene	0.465	0.497	0.500	0.500	93	99	60 - 127	7	20	
Benzo[a]pyrene	0.442	0.469	0.500	0.500	88	94	61 - 123	6	20	
Indeno(1,2,3-c,d)pyrene	0.432	0.464	0.500	0.500	86	93	60 - 125	7	20	
Dibenz[a,h]anthracene	0.441	0.475	0.500	0.500	88	95	61 - 124	7	20	
Benzo[g,h,i]perylene	0.444	0.484	0.500	0.500	89	97	59 - 122	9	20	
Surrogate:										
2-Fluorobiphenyl					59	55	25 - 106			
Pyrene-d10					83	80	28 - 104			
Terphenyl-d14					89	84	40 - 139			



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DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	05-282-01					
Arsenic	ND	3.0	EPA 200.8	5-28-21	6-2-21	
Client ID:	MW-2					
Laboratory ID:	05-282-02					
Arsenic	ND	3.0	EPA 200.8	5-28-21	6-2-21	
Client ID:	MW-3b					
Laboratory ID:	05-282-03					
Arsenic	ND	3.0	EPA 200.8	5-28-21	6-2-21	
Client ID:	MW-4					
Laboratory ID:	05-282-04					
Arsenic	ND	3.0	EPA 200.8	5-28-21	6-2-21	



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**DISSOLVED ARSENIC
 EPA 200.8
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0528F1					
Arsenic	ND	3.0	EPA 200.8	5-28-21	6-2-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	05-282-01							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	05-282-01									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	83.4	84.2	80.0	80.0	ND	104	105	75-125	1	20



Date of Report: June 9, 2021
 Samples Submitted: May 28, 2021
 Laboratory Reference: 2105-282
 Project: 28027

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	05-282-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	6-1-21	6-3-21	
Lube Oil Range Organics	0.30	0.20	NWTPH-Dx	6-1-21	6-3-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				



Date of Report: June 9, 2021
 Samples Submitted: May 28, 2021
 Laboratory Reference: 2105-282
 Project: 28027

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	6-1-21	6-3-21	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	6-1-21	6-3-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0601W1							
	ORIG	DUP						
Diesel Fuel #2	0.456	0.431	NA	NA	NA	NA	6	NA
Surrogate:								
o-Terphenyl				105	98	50-150		





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference





**OnSite
Environmental Inc.**

Analytical Laboratory Testing Services
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Chain of Custody

Page 1 of 1

Turnaround Request (in working days)				Laboratory Number: 05-282														
(Check One)																		
<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day																		
<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days																		
<input checked="" type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days)																		
<input type="checkbox"/> _____ (other)																		
Company:	Galloway Environmental, Inc																	
Project Number:	28027																	
Project Name:	Firewood																	
Project Manager:	D Galloway																	
Sampled by:	D Galloway																	
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers													
1	MW-1	5/28/21	0940	W	8	7	NWTPH-HCID											
2	MW-2		1130		8	X	NWTPH-Gx/BTEX											
3	MW-3b		1244		8	X	NWTPH-Gx											
4	MW-4		1330		8	X	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)											
							Volatiles 8260C											
							Halogenated Volatiles 8260C											
							EDB EPA 8011 (Waters Only)											
							Semivolatiles 8270D/SIM (with low-level PAHs)											
							PAHs 8270D/SIM (low-level)											
							PCBs 8082A											
							Organochlorine Pesticides 8081B											
							Organophosphorus Pesticides 8270D/SIM											
							Chlorinated Acid Herbicides 8151A											
							Total RCRA Metals											
							Total MTCA Metals											
							TCLP Metals											
							HEM (oil and grease) 1664A											
							Dissolved Arsenic											
							%											
							Moisture											
Relinquished	Signature	Company	Date	Time	Comments/Special Instructions													
Received		GET	5/28/21	1514	Lab to filter samples for As.													
Relinquished		OST	5/28/21	1514	(X) Added 6/3/21 to Standard TR													
Received																		
Relinquished																		
Received																		
Relinquished																		
Received																		
Relinquished																		
Reviewed/Date		Reviewed/Date			Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>													
					Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>													