

# **FREMONT ENVIRONMENTAL INC.**

September 2, 2021

Mr. Jason Davidson  
Great Western Operating Company, LLC  
1001 17<sup>th</sup> Street, Suite 2000  
Denver, CO 80202

Subject:       **Excavation Report**  
                  Dilka 22-6  
                  SENW Sec 6, T6N, R63W  
                  Weld County, Colorado  
                  Fremont Project No. C021-017  
                  Facility #305987, Remediation #16834

Dear Mr. Davidson:

Enclosed please find a copy of the above referenced Excavation Report for the Dilka 22-6 wellhead site in Weld County, Colorado. The enclosed report describes excavation actions to remove impacted soil from the site.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,  
**FREMONT ENVIRONMENTAL INC.**



Paul V. Henahan, P.E.  
Senior Consultant

Enclosure

**EXCAVATION REPORT**

**GREAT WESTERN OPERATING COMPANY, LLC**

**DILKA 22-6**

**WELD COUNTY, COLORADO**

**FREMONT PROJECT NO. C021-017**

**FACILITY #305987, REMEDIATION #16834**

**Prepared by:**

**Fremont Environmental Inc.  
1759 Redwing Lane  
Broomfield, CO 80020  
(303) 956-8714**

**September 2, 2021**

## **TABLE OF CONTENTS**

1.0 INTRODUCTION .....	1
2.0 BACKGROUND INFORMATION .....	1
2.1 Site Location .....	1
2.2 Site History .....	1
3.0 FIELD ACTIVITIES .....	1
4.0 DISCUSSION .....	3
5.0 REMARKS .....	3

### **Tables**

Table 1:	Summary of Petroleum Constituents in Soil Chemistry Data
Table 2:	Summary of PAHs in Soil Chemistry Data
Table 3:	Summary of Metals in Soil Chemistry Data
Table 4:	Summary of Inorganics in Soil Chemistry Data

### **Figures**

Figure 1:	Site Location Map
Figure 2:	Site Map
Figure 3:	Excavation and Sample Locations for Laboratory Analyses

### **Appendices**

Appendix A:	Photo Log
Appendix B:	Laboratory Documentation

**EXCAVATION REPORT**  
**GREAT WESTERN OPERATING COMPANY, LLC**  
**DILKA 22-6**  
**WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C021-017**  
**FACILITY #305987, REMEDIATION #16834**

**1.0 INTRODUCTION**

The purpose of this document is to present information collected during the excavation of petroleum-impacted soil at the Dilka 22-6 wellhead location in Weld County, Colorado. This excavation project was completed on August 5, 2021.

**2.0 BACKGROUND INFORMATION**

**2.1 Site Location**

The Dilka 22-6 site is located approximately five miles east of Galeton, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately 0.25 miles southeast of the intersection of County Road 74 and County Road. The location is further described as the SE ¼ of the NW ¼ of Section 6, Township 6N, Range 63W.

**2.2 Site History**

The site's excavation area consisted of the soil immediately adjacent to the Dilka 22-6 wellhead. Soil impacts were identified during cutting and capping the wellhead.

**3.0 FIELD ACTIVITIES**

Remediation efforts consisted of the excavation of petroleum-impacted soil at this site. The soil consisted of road base which was underlain by sandy silt to a depth of approximately nine feet. Groundwater was not encountered during the excavation work. The 12' x 12' x 9' deep excavated area is shown on Figure 3.

Excavation was initiated at the former wellhead on March 31, 2021 during wellhead cutting and capping. Soil samples collected at that time indicated elevated concentrations of petroleum hydrocarbons were present. A subsequent excavation to remove these soil impacts was conducted on August 5, 2021. Soil removal was limited to the area immediately adjacent to the wellhead. The sidewall and floor samples collected upon completion of the excavation work indicated that no residual soil impacts were present. The sidewall samples were collected as grab samples near the lower portion of the excavation wall at a depth of approximately seven feet. The floor sample was collected at a depth of approximately nine feet. Two background soil samples were also collected. Photos of the excavation are provided in Appendix A.

The soil samples were analyzed by Origins Laboratory Inc. of Denver, Colorado for benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, trimethylbenzenes, Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) by EPA method 8260B, and TPH – Diesel Range Organics (TPH-DRO) and TPH-Residual Range Organics (TPH-ORO) by EPA method 8015. In addition, the soil samples were also analyzed for polycyclic aromatic hydrocarbons (PAHs), Table 915-1 metals and Soil Reclamation parameters. The laboratory reports and chain-of-custody documentation are included in Appendix B.

Summaries of the laboratory data are included in Tables 1 to 4. Table 1 presents the laboratory analyses of volatile organic constituents for each soil sample. Table 2 presents the PAHs in the soil samples. Tables 3 and 4 show the Table 915-1 metals and the Soil Reclamation analytes, respectively. The laboratory analyses indicated that the soil samples collected from the sidewalls and floor achieved the Colorado Oil and Gas Conservation Commission (COGCC) Table 915-1 limits for organic and inorganic constituents. However, elevated concentrations of arsenic and selenium were present in

several soil samples. When compared to the concentrations of the background soil samples, the wellhead samples were all less than those background levels.

A total of approximately 18 cubic yards (23 tons) of petroleum-impacted soil was removed by Mundt Energy Services Inc. from the location during this project. The impacted soil was disposed of at Waste Management Inc.'s Northern Colorado Landfill in Ault, Colorado as non-hazardous waste.

#### **4.0 DISCUSSION**

As demonstrated by the soil sampling, the petroleum-impacted soil was removed from the site by excavation. This was confirmed by the analyses of the soil samples collected from the excavation sidewalls and floor which were below the COGCC's Table 915-1 limits. Approximately 18 cubic yards of impacted soil were removed and transported to the landfill. Groundwater was not encountered during the excavation. Therefore, Great Western should request a no further action (NFA) determination be provided by the COGCC.

#### **5.0 REMARKS**

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



9/2/21

Date\_\_\_\_\_

\_\_\_\_\_  
Paul V. Henahan, P.E.

Senior Consultant

## **TABLES**



TABLE 1  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
GREAT WESTERN OPERATING COMPANY  
DILKA 22-6, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C021-017

Sample	Depth (ft)	Date Sampled	PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl- Benzene (mg/kg)	1,3,5-Trimethyl- Benzene (mg/kg)	Naphth- alene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
N Wall 4 Ft	4	3/31/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S Wall 4 Ft	4	3/31/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E Wall 4 Ft	4	3/31/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W Wall 4 Ft	4	3/31/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Floor 6 Ft	6	3/31/2021	8	<0.002	0.0026	0.00346	0.0276	<b>0.0238</b>	0.00636	<0.0038	0.32	90.2	373
Separator 0.2 Ft	0.2	3/31/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
N Wall 7 Ft	7	8/5/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
S Wall 7 Ft	7	8/5/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
E Wall 7 Ft	7	8/5/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
W Wall 7 FT	7	8/5/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
Floor 9 Ft	9	8/5/2021	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.20	<50.0	<200
E Background	1	8/5/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W Background	1	8/5/2021	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COGCC Table 915-1 Limits (Residential SSL)				1.2	490	5.8	58	30	27	2	500	500	500
COGCC Table 915-1 Limits (Protection of Groundwater SSL)				0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500*	500*	500*

Bold faced values exceed the COGCC Table 915-1 concentrations

Blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

\* Summation of GRO+DRO+ORO must be less than 500 mg/kg

NA - Not analyzed

TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
GREAT WESTERN OPERATING COMPANY  
DILKA 22-6  
FREMONT PROJECT NO. C021-017

Sample	Depth (ft)	Date Sampled	Location	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Benzo (a) pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluor- anthene (mg/kg)	Fluorene (mg/kg)	Indeno pyrene (mg/kg)	1-Methyl - naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Pyrene (mg/kg)
N Wall 7 Ft	7	8/5/2021	Wall	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
S Wall 7 Ft	7	8/5/2021	Wall	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
E Wall 7 Ft	7	8/5/2021	Wall	<0.00067	0.00188	0.00708	0.0054	0.00239	0.00464	0.00661	0.000906	0.0145	<0.00067	0.00275	<0.00067	<0.00067	0.0112
W Wall 7 FT	7	8/5/2021	Wall	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
Floor 9 Ft	9	8/5/2021	Floor	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
COGCC Table 915-1 Limits (Residential SSL)				360	1800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
COGCC Table 915-1 Limits (Protection of Groundwater SSL)				0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3

Bold faced values exceed the COGCC Table 915-1 concentrations

Blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 3  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
GREAT WESTERN OPERATING COMPANY  
DILKA 22-6  
FREMONT PROJECT NO. C021-017

Sample	Depth (ft)	Date Sampled	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)	Chromium (mg/kg)
N Wall 7 Ft	7	8/5/2021	<b>2.81</b>	48.5	0.0986	5.13	6.03	5.75	<b>0.342</b>	0.0229	24.1	<0.509
S Wall 7 Ft	7	8/5/2021	<b>1.63</b>	33.6	0.121	2.81	4.28	3.45	<b>0.293</b>	0.0133	13.7	<0.5
E Wall 7 Ft	7	8/5/2021	<b>1.33</b>	34.5	0.0368	2.32	3.51	2.86	0.161	0.0085	12.4	<0.5
W Wall 7 FT	7	8/5/2021	<b>1.62</b>	29.3	0.0491	2.38	3.78	2.93	0.144	0.0087	12.7	<0.503
Floor 9 Ft	9	8/5/2021	<b>1.46</b>	22.9	0.037	2.21	3.8	2.65	0.134	0.0128	11.9	<0.5
East Background	1	8/5/2021	<b>6.43</b>	NA	NA	NA	NA	NA	<b>0.438</b>	NA	NA	NA
West Background	1	8/5/2021	NA	NA	NA	NA	NA	NA	<b>0.412</b>	NA	NA	NA
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	3100	400	1500	390	390	23000	0.3
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	46	14	26	0.26	0.8	370	0.00067

Bold faced values exceed the COGCC Table 915-1 concentrations

Blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

\* Summation of GRO+DRO+ORO must be less than 500 mg/kg

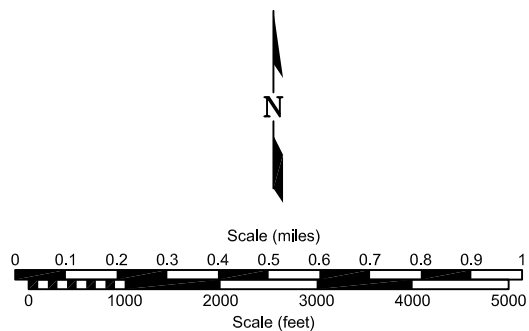
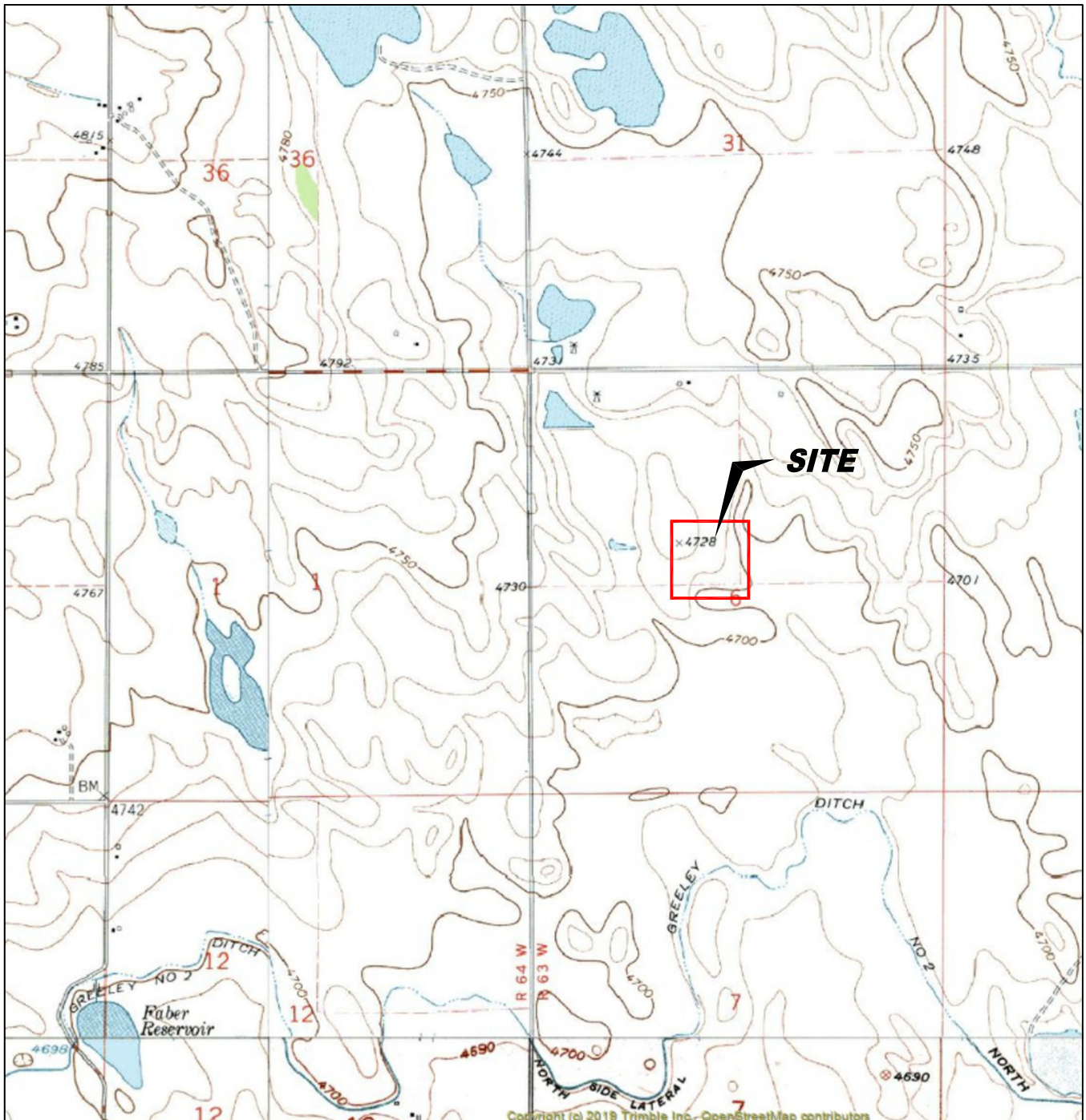
NA- Not analyzed

TABLE 4  
SUMMARY OF INORGANIC SOIL CHEMISTRY DATA  
GREAT WESTERN OPERATING COMPNAY  
DILKA 22-6  
FREMONT PROJECT NO. C021-017

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
Floor 9 Ft	8/5/2021	9	0.47	8.33	3.48	0.2
East Background	8/5/2021	1	0.385	8.16	0.124	0.221
Table 915-1 Limits			<4	6-8.3	<6	2

Bold face values exceed the COGCC Limits

## **FIGURES**



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

Great Western Operating Company  
Dilka 22-6 Wellhead and Flow Line  
SENW Sec. 6, T6N, R63W 6th PM  
Weld County, Colorado

Project Number <b>C021-017</b>	API Number <b>05-123-23784</b>	Drawn By <b>TA</b>
Date <b>8/31/21</b>	Reviewed by <b>PH</b>	Filename <b>21017T</b>







#### LEGEND

- WELLHEAD LOCATION
- FORMER FACILITY FORMER FACILITY
- EXTENT OF EXCAVATION
- UNDERGROUND FLOW LINE

**Figure 2**  
**SITE MAP**

**Great Western Operating Company**  
**Dilka 22-6 Wellhead and Flow Line**  
SENW Sec. 6, T6N, R63W 6th PM  
Weld County, Colorado

Project No. <b>C021-017</b>	Prepared by <b>05-123-23784</b>	Drawn by <b>TA</b>
Date <b>8/31/21</b>	Reviewed by <b>PH</b>	Filename <b>21017QS</b>









**APPENDIX A**

**PHOTO LOG**



**#1 - Dilka 22-6 Wellhead Removal**



**#2 – Excavation of Previously Excavated Dilka 22-6 Wellhead**



**#3 - Looking Northwest at Wellhead Excavation; Marker Plate was knocked Off during Excavation**

## **APPENDIX B**

### **LABORATORY DOCUMENTATION**





August 27, 2021

Fremont Environmental

Paul Henehan

8305 6th St, PO Box 1289

Wellington CO 80549

**Project Name - GWOC - Dilka 22-6**

**Project Number - C021-017**

Attached are your analytical results for GWOC - Dilka 22-6 received by Origins Laboratory, Inc. August 06, 2021. This project is associated with Origins project number Y108137-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.  
303.433.1322  
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N Wall 7 FT	Y108137-01	Soil	August 5, 2021 0:00	08/06/2021 11:00
S Wall 7 FT	Y108137-02	Soil	August 5, 2021 0:00	08/06/2021 11:00
E Wall 7 FT	Y108137-03	Soil	August 5, 2021 0:00	08/06/2021 11:00
W Wall 7 FT	Y108137-04	Soil	August 5, 2021 0:00	08/06/2021 11:00
Floor 9 FT	Y108137-05	Soil	August 5, 2021 0:00	08/06/2021 11:00
East Background	Y108137-06	Soil	August 5, 2021 0:00	08/06/2021 11:00
West Background	Y108137-07	Soil	August 5, 2021 0:00	08/06/2021 11:00

Total Selenium by 6020 was added to samples East Background and West Background per Paul's email request on 08/24/2021. JM

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

4108137

page 1 of 1

Client: Fremont Environmental Inc.  
Address:  
Telephone Number:  
Email Address:

Project Manager: Henehan  
Project Name: GWOC - Dilka 22-6  
Project Number: C021-017  
Samples Collected By: HENEHAN

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions					
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #	Other	GTENX+TMBS	DRO/ORO	PAHs	PET, EC/SAR	Boron	915 metals	Artenic	BTEXN+TMBS	TDS, Cl, SO <sub>4</sub>
N WALL 7 FT	8/5/21		3																	1
S WALL 7 FT			3																	2
E WALL 7 FT			3																	3
W WALL 7 FT			3																	4
FLOOR 9 FT			4																	5
EAST BACKGROUND			1																	6
WEST BACKGROUND			1																	7
																				8
																				9
																				10

Relinquished By: [Signature] Date: 8/6/21 Time: 11:00  
Relinquished By: [Signature] Date: 8/6/21 Time: 11:00

Received By: [Signature] Date: 8/6/21 Time: 11:00  
Received By: [Signature] Date: 8/6/21 Time: 11:00

Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☒ Standard

Date Results Needed

5.1

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

Origins Laboratory

F-012207-01-R1  
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4108137

Client: Fremont/GWOC

Client Project ID: Dilka

Checklist Completed by: Jm

Date/time completed: 8-9-21

Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: 1172

Matrix(s) Received: (Check all that apply) ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_

Cooler Number/Temperature: 151 °C 5.1 °C (Describe) \_\_\_\_\_ °C

Thermometer ID: T603

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 5°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? if yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH < 2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) Jm Date/Time Reviewed 8-9-21

Origins Laboratory, Inc.

*Jordan A. Merrill*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**N Wall 7 FT**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y108137-01 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0630	DJL	08/06/2021	08/09/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl 89.8 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0629	KDK	"	08/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 89.1 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 108 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## N Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-01 (Soil)

### PAH by 8270D SIM

Acenaphthene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	65.5 %	33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	68.5 %	33-122			"	"	"	
Surrogate: Nitrobenzene-d5	62.5 %	29-110			"	"	"	

### Total Metals by 6020B

Arsenic	2.81	0.25	mg/Kg	5	L568077		08/09/2021	08/12/2021	
Barium	48.5	0.25	"	"	"		"	"	

Origins Laboratory, Inc.

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## N Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-01 (Soil)

### Total Metals by 6020B

Cadmium	0.0986	0.25	mg/Kg	5	L568077	08/09/2021	08/12/2021	J
Copper	5.13	0.25	"	"	"	"	"	
Lead	6.03	0.25	"	"	"	"	"	
Nickel	5.75	0.25	"	"	"	"	"	
Selenium	0.342	0.25	"	"	"	"	"	
Silver	0.0229	0.25	"	"	"	"	"	J
Zinc	24.1	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.509	mg/Kg	1	L568706	08/05/2021	08/12/2021	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## S Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108137-02 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0630	DJL	08/06/2021	08/10/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl 86.6 % 50-150 " " "

### GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0629	KDK	"	08/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 114 % 70-130 " " "  
Surrogate: Toluene-d8 107 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 112 % 70-130 " " "

### PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## S Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-02 (Soil)

### PAH by 8270D SIM

Acenaphthene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	56.3 %	33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	59.4 %	33-122			"	"	"	
Surrogate: Nitrobenzene-d5	52.6 %	29-110			"	"	"	

### Total Metals by 6020B

Arsenic	1.63	0.25	mg/Kg	5	L568078		08/09/2021	08/19/2021	
Barium	33.6	0.25	"	"	"		"	"	

Origins Laboratory, Inc.

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## S Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-02 (Soil)

### Total Metals by 6020B

Cadmium	0.121	0.25	mg/Kg	5	L568078	08/09/2021	08/19/2021	J
Copper	2.81	0.25	"	"	"	"	"	
Lead	4.28	0.25	"	"	"	"	"	
Nickel	3.45	0.25	"	"	"	"	"	
Selenium	0.293	0.25	"	"	"	"	"	
Silver	0.0133	0.25	"	"	"	"	"	J
Zinc	13.7	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L568706	08/05/2021	08/12/2021	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## E Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108137-03 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0630	DJL	08/06/2021	08/10/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl 81.0 % 50-150 " " "

### GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0629	KDK	"	08/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 114 % 70-130 " " "  
Surrogate: Toluene-d8 105 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 111 % 70-130 " " "

### PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**E Wall 7 FT**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y108137-03 (Soil)**

**PAH by 8270D SIM**

Acenaphthene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
Anthracene	0.00188	0.00067	"	"	"		"	"	
Benzo(a)anthracene	0.00708	0.00067	"	"	"		"	"	
Benzo(a)pyrene	0.00464	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	0.0054	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	0.00239	0.00067	"	"	"		"	"	
Chrysene	0.00661	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	0.000906	0.00067	"	"	"		"	"	
Fluoranthene	0.0145	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	0.00275	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	0.0112	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	59.9 %	33-115			"	"	"	"	
Surrogate: 4-Terphenyl-d14	60.9 %	33-122			"	"	"	"	
Surrogate: Nitrobenzene-d5	58.7 %	29-110			"	"	"	"	

**Total Metals by 6020B**

Arsenic	1.33	0.25	mg/Kg	5	L568078		08/09/2021	08/19/2021	
Barium	34.5	0.25	"	"	"		"	"	
Cadmium	0.0368	0.25	"	"	"		"	"	J
Copper	2.32	0.25	"	"	"		"	"	

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## E Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-03 (Soil)

### Total Metals by 6020B

Lead	3.51	0.25	mg/Kg	5	L568078		08/09/2021	08/19/2021	
Nickel	2.86	0.25	"	"	"		"	"	
Selenium	0.161	0.25	"	"	"		"	"	J
Silver	0.0085	0.25	"	"	"		"	"	J
Zinc	12.4	2.5	"	"	"		"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L568706		08/05/2021	08/12/2021	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**W Wall 7 FT**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y108137-04 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0630	DJL	08/06/2021	08/10/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl 80.9 % 50-150 " " "

**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0629	KDK	"	08/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 114 % 70-130 " " "  
Surrogate: Toluene-d8 106 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 111 % 70-130 " " "

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**W Wall 7 FT**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y108137-04 (Soil)**

**PAH by 8270D SIM**

Acenaphthene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	64.5 %	33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	62.4 %	33-122			"	"	"	
Surrogate: Nitrobenzene-d5	61.8 %	29-110			"	"	"	

**Total Metals by 6020B**

Arsenic	1.62	0.25	mg/Kg	5	L568078		08/09/2021	08/19/2021	
Barium	29.3	0.25	"	"	"		"	"	

Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-017

Project: GWOC - Dilka 22-6

## W Wall 7 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc.

Y108137-04 (Soil)

### Total Metals by 6020B

Cadmium	0.0491	0.25	mg/Kg	5	L568078	08/09/2021	08/19/2021	J
Copper	2.38	0.25	"	"	"	"	"	
Lead	3.78	0.25	"	"	"	"	"	
Nickel	2.93	0.25	"	"	"	"	"	
Selenium	0.144	0.25	"	"	"	"	"	J
Silver	0.0087	0.25	"	"	"	"	"	J
Zinc	12.7	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.503	mg/Kg	1	L568706	08/05/2021	08/12/2021	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Floor 9 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y108137-05 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.200	0.200	mg/L	1	B1H1001	JMA	08/10/2021	08/10/2021	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0630	DJL	08/06/2021	08/10/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl	79.9 %	50-150			"	"	"	
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### GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0629	KDK	"	08/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.2 %	70-130			"	"	"
Surrogate: Toluene-d8	101 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	108 %	70-130			"	"	"

### Metals by Saturated Paste

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

Floor 9 FT  
8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y108137-05 (Soil)

**Metals by Saturated Paste**

Calcium	1.05	0.0499	meq/L	1	[CALC]	CJM	08/09/2021	08/11/2021
Magnesium	0.481	0.0823	"	"	"	CJM	"	"
Sodium	3.04	0.0435	"	"	"	CJM	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L568272		08/10/2021	08/10/2021
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	0.00067	"	"	"		"	"

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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-017

Project: GWOC - Dilka 22-6

## Floor 9 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-05 (Soil)

### PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	66 %	33-115			L5682 72	08/10/2021	08/10/2021	
Surrogate: 4-Terphenyl-d14	65.7 %	33-122			"	"	"	
Surrogate: Nitrobenzene-d5	65.3 %	29-110			"	"	"	

### pH in Soil by 9045D

pH	8.33		pH Units	1	B1H1009	DTP	08/10/2021	08/10/2021	
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### SAR by 20B Saturated Paste

SAR	3.48		SAR	1	B1H0911	CJM	08/09/2021	08/11/2021	
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.468	0.00500	mmhos/cm	1	B1H1010	DTP	08/10/2021	08/10/2021	
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### Total Metals by 6020B

Arsenic	1.46	0.25	mg/Kg	5	L568078		08/09/2021	08/19/2021	
Barium	22.9	0.25	"	"	"		"	"	
Cadmium	0.037	0.25	"	"	"		"	"	J
Copper	2.21	0.25	"	"	"		"	"	
Lead	3.8	0.25	"	"	"		"	"	
Nickel	2.65	0.25	"	"	"		"	"	
Selenium	0.134	0.25	"	"	"		"	"	J

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Floor 9 FT

8/5/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y108137-05 (Soil)

### Total Metals by 6020B

Silver	0.0128	0.25	mg/Kg	5	L568078	08/09/2021	08/19/2021	J
Zinc	11.9	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.5	mg/Kg	1	L568706	08/05/2021	08/12/2021	
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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**East Background**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y108137-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.221	0.201	mg/L	1	B1H1001	JMA	08/10/2021	08/10/2021
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**Metals by Saturated Paste**

Calcium	2.96	0.0499	meq/L	"	[CALC]	CJM	08/09/2021	08/11/2021
Magnesium	0.383	0.0823	"	"	"	CJM	"	"
Sodium	0.161	0.0435	"	"	"	CJM	"	"

**pH in Soil by 9045D**

pH	8.16		pH Units	1	B1H1009	DTP	08/10/2021	08/10/2021
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**SAR by 20B Saturated Paste**

SAR	0.124		SAR	1	B1H0911	CJM	08/09/2021	08/11/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.385	0.00500	mmhos/cm	1	B1H1010	DTP	08/10/2021	08/10/2021
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**Total Metals by 6020B**

Arsenic	6.43	0.25	mg/Kg	5	L568331		08/10/2021	08/12/2021
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Origins Laboratory, Inc.



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8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**East Background**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit							

**Waypoint Analytical, Inc.**  
**Y108137-06 (Soil)**

**Total Metals by 6020B**

Selenium	0.438	0.25	mg/Kg	5	L568331	"	08/12/2021
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Project Number: C021-017  
Project: GWOC - Dilka 22-6

**West Background**  
**8/5/2021 12:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
**Y108137-07 (Soil)**

**Total Metals by 6020B**

Selenium	0.412	0.25	mg/Kg	5	L571086	08/26/2021	08/27/2021
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Origins Laboratory, Inc.



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Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0629 - EPA 5030 (soil)</b>										
<b>Blank (B1H0629-BLK1)</b>					Prepared: 08/06/2021 Analyzed: 08/11/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.7	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		113	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.0	70-130			

Origins Laboratory, Inc.



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Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0629 - EPA 5030 (soil)</b>										
<b>LCS (B1H0629-BS1)</b>					Prepared: 08/06/2021 Analyzed: 08/11/2021					
1,2,4-Trimethylbenzene	0.0562	0.00200	mg/kg	0.0500		112	70-130			
Naphthalene	0.0524	0.0100	"	0.0500		105	70-130			
1,3,5-Trimethylbenzene	0.0549	0.00200	"	0.0500		110	70-130			
Benzene	0.0401	0.00200	"	0.0500		80.3	70-130			
Ethylbenzene	0.0527	0.00200	"	0.0500		105	70-130			
m,p-Xylene	0.110	0.00400	"	0.100		110	70-130			
o-Xylene	0.0539	0.00200	"	0.0500		108	70-130			
Toluene	0.0517	0.00200	"	0.0500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		87.1	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		112	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.3	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0629 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1H0629-MS1)</b>		<b>Source: Y108129-02</b>			Prepared: 08/06/2021 Analyzed: 08/11/2021					
1,2,4-Trimethylbenzene	0.0519	0.00200	mg/kg	0.0500	0.0350	33.7	70-130			QM-07
Naphthalene	0.0508	0.0100	"	0.0500	0.0283	45.0	70-130			QM-07
1,3,5-Trimethylbenzene	0.0508	0.00200	"	0.0500	0.0115	78.7	70-130			
Benzene	0.0387	0.00200	"	0.0500	ND	77.4	70-130			
Ethylbenzene	0.0496	0.00200	"	0.0500	ND	99.2	70-130			
m,p-Xylene	0.104	0.00400	"	0.100	0.00466	99.6	70-130			
o-Xylene	0.0516	0.00200	"	0.0500	0.00178	99.7	70-130			
Toluene	0.0493	0.00200	"	0.0500	ND	98.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.9	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		111	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.5	70-130			

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Project: GWOC - Dilka 22-6

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0629 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1H0629-MSD1)</b>		<b>Source: Y108129-02</b>			Prepared: 08/06/2021 Analyzed: 08/11/2021					
1,2,4-Trimethylbenzene	0.0651	0.00200	mg/kg	0.0500	0.0350	60.1	70-130	22.6	20	QM-07, QR-03
Naphthalene	0.0597	0.0100	"	0.0500	0.0283	62.7	70-130	16.0	20	QM-07
1,3,5-Trimethylbenzene	0.0646	0.00200	"	0.0500	0.0115	106	70-130	23.9	20	QR-03
Benzene	0.0489	0.00200	"	0.0500	ND	97.9	70-130	23.3	20	QR-03
Ethylbenzene	0.0631	0.00200	"	0.0500	ND	126	70-130	23.9	20	QR-03
m,p-Xylene	0.131	0.00400	"	0.100	0.00466	127	70-130	22.9	20	QR-03
o-Xylene	0.0639	0.00200	"	0.0500	0.00178	124	70-130	21.2	20	QR-03
Toluene	0.0623	0.00200	"	0.0500	ND	125	70-130	23.3	20	QR-03
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.5	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		111	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.9	70-130			

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Project: GWOC - Dilka 22-6

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0630 - EPA 3550B</b>										
<b>Blank (B1H0630-BLK1)</b>					Prepared: 08/06/2021 Analyzed: 08/09/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	13		"	25.0		52.8	50-150			

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Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B1H0630 - EPA 3550B

#### LCS (B1H0630-BS1)

Prepared: 08/06/2021 Analyzed: 08/09/2021

Diesel (C10-C28)	939	50.0	mg/kg	1000		93.9	70-130			
Residual Range Organics (C28-C40)	928	200	"	1000		92.8	70-130			
Surrogate: o-Terphenyl	48		"	50.0		96.6	50-150			

Origins Laboratory, Inc.



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Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B1H0630 - EPA 3550B

Matrix Spike (B1H0630-MS1)		Source: Y108128-01			Prepared: 08/06/2021 Analyzed: 08/09/2021					
Diesel (C10-C28)	1250	50.0	mg/kg	1000	389	86.0	70-130			
Residual Range Organics (C28-C40)	1050	200	"	1000	ND	105	70-130			
Surrogate: o-Terphenyl	47		"	50.0		93.6	50-150			

Origins Laboratory, Inc.



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Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0630 - EPA 3550B</b>										
<b>Matrix Spike Dup (B1H0630-MSD1)</b>	<b>Source: Y108128-01</b>				Prepared: 08/06/2021 Analyzed: 08/09/2021					
Diesel (C10-C28)	1330	50.0	mg/kg	1000	389	94.4	70-130	6.50	35	
Residual Range Organics (C28-C40)	1020	200	"	1000	ND	102	70-130	2.97	35	
Surrogate: o-Terphenyl	47		"	50.0		94.6	50-150			

Origins Laboratory, Inc.



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Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Saturated Paste - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1H1009 - NO PREP

<b>Duplicate (B1H1009-DUP1)</b>		<b>Source: Y108124-04</b>		Prepared: 08/10/2021 Analyzed: 08/10/2021						
pH	7.36		pH Units		7.61			3.34	25	

#### Batch B1H1010 - NO PREP

<b>Blank (B1H1010-BLK1)</b>		Prepared: 08/10/2021 Analyzed: 08/10/2021								
Specific Conductance (EC)	0.00290	0.00500	mmhos/cm							
<b>Duplicate (B1H1010-DUP1)</b>		<b>Source: Y108124-04</b>		Prepared: 08/10/2021 Analyzed: 08/10/2021						
Specific Conductance (EC)	0.964	0.00500	mmhos/cm		0.890			7.89	25	

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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Total Metals by 6020B - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L568331 - 3050B</b>										
<b>MSD (L 88465-MSD-L568331)</b>		<b>Source: 88465</b>			Prepared: 08/10/2021 Analyzed: 08/12/2021					
Selenium	3.33	0.103	mg/Kg	4.85	0.588	56	75-125	5.2	80	I*
<b>MS (L 88465-MS-L568331)</b>		<b>Source: 88465</b>			Prepared: 08/10/2021 Analyzed: 08/12/2021					
Selenium	3.16	0.103	mg/Kg	4.79	0.588	54	75-125			I*
<b>LCS (LCS-L568331)</b>					Prepared: 08/10/2021 Analyzed: 08/12/2021					
Selenium	4.79	0.103	mg/Kg	5		96	80-120			
<b>LRB (LRB-L568331)</b>					Prepared: 08/10/2021 Analyzed: 08/12/2021					
Selenium	ND	0.25	mg/Kg				-			
<b>Batch L571086 - 3050B</b>										
<b>MSD (L 95091-MSD-L571086)</b>		<b>Source: 95091</b>			Prepared: 08/26/2021 Analyzed: 08/27/2021					
Selenium	3.74	0.103	mg/Kg	4.99	0.521	65	75-125	12	80	*
<b>MS (L 95091-MS-L571086)</b>		<b>Source: 95091</b>			Prepared: 08/26/2021 Analyzed: 08/27/2021					
Selenium	4.22	0.103	mg/Kg	4.91	0.521	75	75-125			
<b>LCS (LCS-L571086)</b>					Prepared: 08/26/2021 Analyzed: 08/27/2021					
Selenium	4.83	0.103	mg/Kg	5		97	80-120			
<b>LRB (LRB-L571086)</b>					Prepared: 08/26/2021 Analyzed: 08/27/2021					
Selenium	ND	0.25	mg/Kg				-			

Origins Laboratory, Inc.



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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L568272 - 3550B**

MSD (L 87989-MSD-L568272)		Source: 87989			Prepared: 08/10/2021 Analyzed: 08/10/2021					
Benzo(a)anthracene	0.129	0.000441	mg/Kg	0.165	87989	78.1	30-130	0	30	
Naphthalene	0.108	0.000467	"	0.165	87989	65.4	30-130	3.6	30	
Indeno(1,2,3-cd)pyrene	0.115	0.000344	"	0.165	87989	69.6	30-130	4.4	30	
Fluorene	0.109	0.000501	"	0.165	87989	66	30-130	0.9	30	
Fluoranthene	0.116	0.000529	"	0.165	87989	70.3	30-130	1.7	30	
Dibenz(a,h)anthracene	0.129	0.000279	"	0.165	87989	78.1	30-130	3.1	30	
Chrysene	0.126	0.000256	"	0.165	87989	76.3	30-130	0	30	
Benzo(k)fluoranthene	0.108	0.000486	"	0.165	87989	65.4	30-130	7.1	30	
Benzo(a)pyrene	0.119	0.000133	"	0.165	87989	72.1	30-130	1.6	30	
Acenaphthene	0.11	0.000431	"	0.165	87989	66.6	30-130	0.9	30	
Anthracene	0.121	0.000426	"	0.165	87989	73.3	30-130	3.2	30	
2-Methylnaphthalene	0.105	0.000542	"	0.165	87989	63.6	30-130	0	30	
1-Methylnaphthalene	0.105	0.00048	"	0.165	87989	63.6	30-130	1.8	30	
Pyrene	0.113	0.000387	"	0.165	87989	68.4	30-130	0.8	30	
Benzo(b)fluoranthene	0.117	0.000138	"	0.165	87989	70.9	30-130	13.6	30	
Surrogate: Nitrobenzene-d5	61.8		"	0.33	178	61.8	29-110			
Surrogate: 2-Fluorobiphenyl	66		"	0.33	183	66	33-115			
Surrogate: 4-Terphenyl-d14	69.3		"	0.33	204	69.3	33-122			

MS (L 87989-MS-L568272)		Source: 87989			Prepared: 08/10/2021 Analyzed: 08/10/2021					
Dibenz(a,h)anthracene	0.125	0.000279	mg/Kg	0.164	87989	76.2	30-130			
Pyrene	0.114	0.000387	"	0.164	87989	69.5	30-130			
Naphthalene	0.112	0.000467	"	0.164	87989	68.2	30-130			
Indeno(1,2,3-cd)pyrene	0.11	0.000344	"	0.164	87989	67	30-130			
Fluorene	0.108	0.000501	"	0.164	87989	65.8	30-130			
Fluoranthene	0.118	0.000529	"	0.164	87989	71.9	30-130			
1-Methylnaphthalene	0.107	0.00048	"	0.164	87989	65.2	30-130			

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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L568272 - 3550B**

MS (L 87989-MS-L568272)		Source: 87989			Prepared: 08/10/2021 Analyzed: 08/10/2021					
Chrysene	0.126	0.000256	mg/Kg	0.164	87989	76.8	30-130			
Acenaphthene	0.109	0.000431	"	0.164	87989	66.4	30-130			
Anthracene	0.125	0.000426	"	0.164	87989	76.2	30-130			
Benzo(a)anthracene	0.129	0.000441	"	0.164	87989	78.6	30-130			
Benzo(a)pyrene	0.121	0.000133	"	0.164	87989	73.7	30-130			
Benzo(b)fluoranthene	0.102	0.000138	"	0.164	87989	62.1	30-130			
Benzo(k)fluoranthene	0.116	0.000486	"	0.164	87989	70.7	30-130			
2-Methylnaphthalene	0.105	0.000542	"	0.164	87989	64	30-130			
Surrogate: Nitrobenzene-d5	62.9		"	0.329	178	62.9	29-110			
Surrogate: 2-Fluorobiphenyl	68.3		"	0.329	183	68.3	33-115			
Surrogate: 4-Terphenyl-d14	70.8		"	0.329	204	70.8	33-122			

LCS (LCS-L568272)		Prepared: 08/10/2021 Analyzed: 08/10/2021								
Chrysene	0.128	0.000256	mg/Kg	0.167		76.6	30-130			
Dibenz(a,h)anthracene	0.131	0.000279	"	0.167		78.4	30-130			
Fluoranthene	0.12	0.000529	"	0.167		71.8	30-130			
Fluorene	0.113	0.000501	"	0.167		67.6	30-130			
Indeno(1,2,3-cd)pyrene	0.124	0.000344	"	0.167		74.2	30-130			
Benzo(k)fluoranthene	0.111	0.000486	"	0.167		66.4	30-130			
Pyrene	0.118	0.000387	"	0.167		70.6	30-130			
Naphthalene	0.112	0.000467	"	0.167		67	30-130			
Benzo(b)fluoranthene	0.117	0.000138	"	0.167		70	30-130			
Benzo(a)pyrene	0.12	0.000133	"	0.167		71.8	30-130			
Benzo(a)anthracene	0.128	0.000441	"	0.167		76.6	30-130			
1-Methylnaphthalene	0.109	0.00048	"	0.167		65.2	30-130			
Acenaphthene	0.114	0.000431	"	0.167		68.2	30-130			
2-Methylnaphthalene	0.108	0.000542	"	0.167		64.6	30-130			

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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L568272 - 3550B**

**LCS (LCS-L568272)**

Prepared: 08/10/2021 Analyzed: 08/10/2021

Anthracene	0.126	0.000426	mg/Kg	0.167	75.4	30-130
Surrogate: 4-Terphenyl-d14	75.9		"	0.333	75.9	33-122
Surrogate: 2-Fluorobiphenyl	73.5		"	0.333	73.5	33-115
Surrogate: Nitrobenzene-d5	65.7		"	0.333	65.7	29-110

**LRB (LRB-L568272)**

Prepared: 08/10/2021 Analyzed: 08/10/2021

Benzo(a)anthracene	ND	0.00067	mg/Kg			-
Chrysene	ND	0.00067	"			-
Pyrene	ND	0.00067	"			-
Naphthalene	ND	0.00067	"			-
Indeno(1,2,3-cd)pyrene	ND	0.00067	"			-
Fluorene	ND	0.00067	"			-
Acenaphthene	ND	0.00067	"			-
Dibenz(a,h)anthracene	ND	0.00067	"			-
1-Methylnaphthalene	ND	0.00067	"			-
Benzo(k)fluoranthene	ND	0.00067	"			-
Benzo(b)fluoranthene	ND	0.00067	"			-
Benzo(a)pyrene	ND	0.00067	"			-
Anthracene	ND	0.00067	"			-
2-Methylnaphthalene	ND	0.00067	"			-
Fluoranthene	ND	0.00067	"			-
Surrogate: Nitrobenzene-d5	62.4		"	0.333	62.4	29-110
Surrogate: 4-Terphenyl-d14	71.1		"	0.333	71.1	33-122
Surrogate: 2-Fluorobiphenyl	73.2		"	0.333	73.2	33-115

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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L568078 - 3050B**

MSD (L 87712-MSD-L568078)			Source: 87712		Prepared: 08/09/2021 Analyzed: 08/19/2021					
Barium	104	0.042	mg/Kg	4.97	107	NR	75-125	1.9	80	*
Nickel	9.95	0.0633	"	2.48	7.63	93	75-125	3.7	80	
Arsenic	4.69	0.0855	"	2.48	2.84	75	75-125	5.7	80	
Cadmium	0.813	0.0259	"	0.497	0.356	92	75-125	6.6	80	
Copper	19.8	0.0806	"	2.48	17.5	93	75-125	7.3	80	
Lead	28.5	0.031	"	2.48	27.8	28	75-125	0.6	80	*
Silver	0.646	0.0067	"	0.497	0.223	130	75-125	4.1	80	*
Zinc	89.5	0.534	"	24.8	65.7	96	75-125	6.4	80	
Selenium	3.86	0.103	"	4.97	0.324	71	75-125	6.6	80	*
MS (L 87712-MS-L568078)			Source: 87712		Prepared: 08/09/2021 Analyzed: 08/19/2021					
Nickel	9.58	0.0633	mg/Kg	2.36	7.63	83	75-125			
Zinc	83.9	0.534	"	23.6	65.7	77	75-125			
Silver	0.62	0.0067	"	0.473	0.223	131	75-125			*
Selenium	3.61	0.103	"	4.73	0.324	70	75-125			*
Copper	18.4	0.0806	"	2.36	17.5	38	75-125			*
Lead	28.7	0.031	"	2.36	27.8	38	75-125			*
Cadmium	0.761	0.0259	"	0.473	0.356	86	75-125			
Barium	106	0.042	"	4.73	107	NR	75-125			*
Arsenic	4.43	0.0855	"	2.36	2.84	67	75-125			*
LCS (LCS-L568078)			Prepared: 08/09/2021 Analyzed: 08/19/2021							
Arsenic	2.49	0.0855	mg/Kg	2.5		100	80-120			
Zinc	23.8	0.534	"	25		95	80-120			
Lead	2.4	0.031	"	2.5		96	80-120			
Barium	4.78	0.042	"	5		96	80-120			
Cadmium	0.459	0.0259	"	0.5		92	80-120			

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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L568078 - 3050B

#### LCS (LCS-L568078)

Prepared: 08/09/2021 Analyzed: 08/19/2021

Copper	2.36	0.0806	mg/Kg	2.5		94	80-120			
Silver	0.468	0.0067	"	0.5		94	80-120			
Selenium	5.02	0.103	"	5		100	80-120			
Nickel	2.3	0.0633	"	2.5		92	80-120			

#### LRB (LRB-L568078)

Prepared: 08/09/2021 Analyzed: 08/19/2021

Cadmium	ND	0.25	mg/Kg				-			
Arsenic	ND	0.25	"				-			
Zinc	ND	2.5	"				-			
Silver	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Barium	ND	0.25	"				-			

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Project: GWOC - Dilka 22-6

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L568331 - 3050B</b>										
<b>MSD (L 88465-MSD-L568331)</b>			<b>Source: 88465</b>		Prepared: 08/10/2021 Analyzed: 08/12/2021					
Arsenic	4.86	0.0855	mg/Kg	2.43	3.45	58	75-125	7	80	I*
<b>MS (L 88465-MS-L568331)</b>			<b>Source: 88465</b>		Prepared: 08/10/2021 Analyzed: 08/12/2021					
Arsenic	4.53	0.0855	mg/Kg	2.4	3.45	45	75-125			I*
<b>LCS (LCS-L568331)</b>			Prepared: 08/10/2021 Analyzed: 08/12/2021							
Arsenic	2.43	0.0855	mg/Kg	2.5		97	80-120			
<b>LRB (LRB-L568331)</b>			Prepared: 08/10/2021 Analyzed: 08/12/2021							
Arsenic	ND	0.25	mg/Kg				-			

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Project: GWOC - Dilka 22-6

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L568077 - 3050B</b>										
<b>MSD (L 87967-MSD-L568077)</b>			<b>Source: Y108137-01</b>		Prepared: 08/09/2021 Analyzed: 08/12/2021					
Silver	0.468	0.0067	mg/Kg	0.476	0.0229	98	75-125	6	80	
Selenium	3.63	0.103	"	4.76	0.342	69	75-125	11.6	80	*
Arsenic	3.57	0.0855	"	2.38	2.81	32	75-125	1.9	80	I*
Barium	47.5	0.042	"	4.76	48.5	NR	75-125	1	80	*
Cadmium	0.524	0.0259	"	0.476	0.0986	110	75-125	4.2	80	
Copper	6.55	0.0806	"	2.38	5.13	60	75-125	0.3	80	*
Lead	7.25	0.031	"	2.38	6.03	51	75-125	4	80	*
Nickel	6.97	0.0633	"	2.38	5.75	51	75-125	10.3	80	*
Zinc	42.5	0.534	"	23.8	24.1	77	75-125	3	80	
<b>MS (L 87967-MS-L568077)</b>			<b>Source: Y108137-01</b>		Prepared: 08/09/2021 Analyzed: 08/12/2021					
Zinc	43.8	0.534	mg/Kg	24.1	24.1	82	75-125			
Silver	0.497	0.0067	"	0.481	0.0229	103	75-125			
Selenium	4.08	0.103	"	4.81	0.342	78	75-125			
Cadmium	0.547	0.0259	"	0.481	0.0986	114	75-125			
Nickel	7.73	0.0633	"	2.41	5.75	82	75-125			
Arsenic	3.64	0.0855	"	2.41	2.81	34	75-125			I*
Lead	7.55	0.031	"	2.41	6.03	63	75-125			*
Copper	6.53	0.0806	"	2.41	5.13	58	75-125			*
Barium	48	0.042	"	4.81	48.5	NR	75-125			*
<b>LCS (LCS-L568077)</b>			Prepared: 08/09/2021 Analyzed: 08/12/2021							
Barium	4.89	0.042	mg/Kg	5		98	80-120			
Zinc	26.8	0.534	"	25		107	80-120			
Lead	2.61	0.031	"	2.5		104	80-120			
Cadmium	0.503	0.0259	"	0.5		101	80-120			
Silver	0.524	0.0067	"	0.5		105	80-120			

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Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L568077 - 3050B

#### LCS (LCS-L568077)

Prepared: 08/09/2021 Analyzed: 08/12/2021

Copper	2.65	0.0806	mg/Kg	2.5	106	80-120
Selenium	4.91	0.103	"	5	98	80-120
Nickel	2.65	0.0633	"	2.5	106	80-120
Arsenic	2.49	0.0855	"	2.5	100	80-120

#### LRB (LRB-L568077)

Prepared: 08/09/2021 Analyzed: 08/12/2021

Arsenic	ND	0.25	mg/Kg			-	
Zinc	ND	2.5	"			-	
Silver	ND	0.25	"			-	
Selenium	ND	0.25	"			-	
Nickel	ND	0.25	"			-	
Lead	ND	0.25	"			-	
Copper	0.0838	0.25	"			-	J
Cadmium	ND	0.25	"			-	
Barium	ND	0.25	"			-	

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## Total Metals by 7196A - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L568706 -</b>										
<b>DUP (L 87956-DUP)</b>		<b>Source: 87956</b>			Prepared: Analyzed: 08/12/2021					
Chromium, Hexavalent	ND	12.2	mg/Kg		87956	-		0	20	
<b>MS (L 87956-MS)</b>		<b>Source: 87956</b>			Prepared: Analyzed: 08/12/2021					
Chromium, Hexavalent	ND	12.2	mg/Kg	7.81	87956	0	75-125			*
<b>LCS (LCS)</b>					Prepared: Analyzed: 08/12/2021					
Chromium, Hexavalent	6.67	0.244	mg/Kg	8		83	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 08/12/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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Wellington CO 80549

Paul Henehan  
Project Number: C021-017  
Project: GWOC - Dilka 22-6

### Notes and Definitions

- U Sample is Non-Detect.
- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- J Estimated Value. Analyte below reported quantitation limit.
- I\* [Undefined]
- \* QC Failure
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported at a wet weight basis.

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