

# **FREMONT ENVIRONMENTAL INC.**

December 18, 2022

Mr. Jason Davidson  
PDC Energy Inc.  
4000 Burlington Ave.  
Greeley, CO 80620

Subject:     **Remediation Report**  
              UPRR Meyer #1  
              API # 05-001-06793  
              SWSE Sec 9, T2S, R63W  
              Adams County, Colorado  
              Fremont Project No. C020-031  
              Facility #319791, Remediation #9264

Dear Mr. Davidson:

Enclosed please find a copy of the above referenced Remediation Report for the UPRR Meyer #1 site in Adams County, Colorado. The enclosed report describes the operation of the soil vapor extraction system that was installed at the site to remediate petroleum-impacted soil at 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

**REMEDIATION REPORT**

**PDC ENERGY INC.**

**UPRR MEYER #1**

**ADAMS COUNTY, COLORADO**

**FREMONT PROJECT NO. C020-031**

**FACILITY #319791, REMEDIATION #9464**

**Prepared by:**

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

**December 18, 2022**

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**REMEDIATION REPORT**  
**PDC ENERGY INC.**  
**UPRR MEYER #1**  
**ADAMS COUNTY, COLORADO**  
**FREMONT PROJECT NO. C020-031**  
**FACILITY #319791, REMEDIATION #9464**

**1.0 INTRODUCTION**

The purpose of this document is to present information collected during the remediation of petroleum-impacted soil at PDC Energy Inc.'s (PDC's) UPRR Meyer #1 site in Adams County, Colorado. A soil remediation system consisting of two soil vapor extraction (SVE) wells was installed and activated at the site on November 19, 2021. The SVE system has operated continuously since that date.

**2.0 BACKGROUND INFORMATION**

**2.1 Site Location**

The UPRR Meyer #1 site is located approximately 11 miles north of Bennett, Colorado in Adams County as shown on Figure 1. The site is located in an agricultural area approximately 0.3 miles northwest of the intersection of County Road 33 and East 104<sup>th</sup> Avenue. The location is further described as the SW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 9, Township 2S, Range 63W.

**2.2 Site History**

The UPRR Meyer #1 well was drilled in 1974 to a vertical depth of approximately 7,671 feet. The well and facility were permanently abandoned in 2019.

During abandonment activities, historical subsurface contamination was observed. These residual impacts triggered this remediation program.

### **3.0 REMEDIATION ACTIVITIES**

#### **3.1 Soil Remediation System**

As a result of the residual subsurface impacts at the UPRR Meyer #1 location, PDC installed an SVE system to remediate soil impacts. The system consists of two SVE wells that are individually piped to a remediation trailer. The Republic HRC 500 SVE vacuum blower operates at approximately 80 cfm and 25" H<sub>2</sub>O. The remediation system is powered by a propane fueled generator. Figure 3 illustrates the layout of the remediation system.

An SVE exhaust sample was collected on November 7, 2022 and submitted to Origins Laboratory. These data indicate that the SVE system was removing 13.4 pounds per day of petroleum hydrocarbons. The laboratory reports are provided in Appendix A.

### **4.0 DISCUSSION**

Since soil impacts remained at the site after facility abandonment, an SVE remediation system was installed and activated in November 2021 to address those impacts. The remediation system operates on a 24/7 basis. The SVE system has removed 1.41 tons of petroleum hydrocarbons since startup.

When it appears that the SVE system has reached the limits of its operational effectiveness, confirmation soil borings will be advanced to determine whether the subsurface soil impacts have been adequately remediated. The Residential Soil Screening Levels will be applied to this site since the depth to groundwater is believed to be approximately 125 feet based on a 2020 Division of Water Resources document.

### **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.**



12/18/22

Date\_\_\_\_\_

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

Senior Consultant

## TABLE

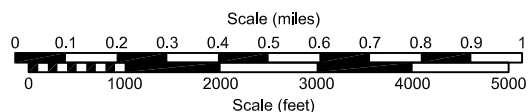
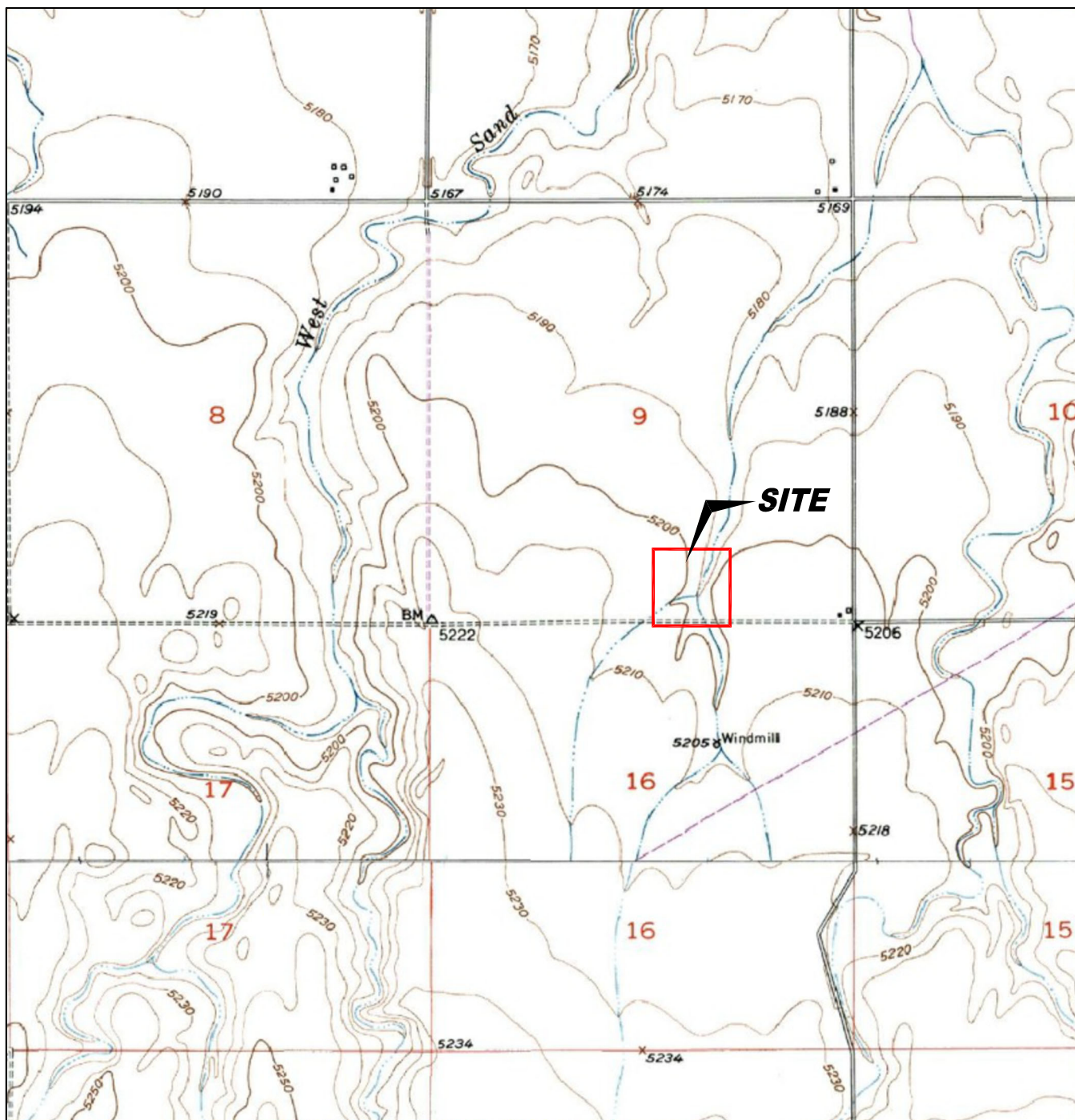
**TABLE 1**  
**SUMMARY OF SVE DISCHARGE**  
**PDC ENERGY INC.**  
**UPRR MEYER #1, ADAMS COUNTY, COLORADO**  
**FREMONT PROJECT NO. C021-031**

| Date     | Air Discharge (CFM) | Instantaneous Hydrocarbon Removal Rate (Lbs/Hr) (Lbs/Day) | Operational Hours | Total Pounds Removed For Period | Cumulative Pounds Removed | Cumulative Tons Removed | Benzene Lbs/Hr | Total Benzene For Period Lbs | Cumulative Pounds Benzene Removed |
|----------|---------------------|---|-------------------|---------------------------------|---------------------------|-------------------------|----------------|------------------------------|-----------------------------------|
| 12/03/21 | 80                  | 0.46 11.13  | 336               | 155.75                          | 155.75                    | 0.08                    | 0.0006         | 0.20                         | 0.20                              |
| 12/21/21 | 60                  | 0.53 12.65  | 388               | 204.51                          | 360.26                    | 0.18                    | 0.0004         | 0.16                         | 0.36                              |
| 12/29/21 | 60                  | 1.39 33.43  | 173               | 240.97                          | 601.23                    | 0.30                    | 0.0002         | 0.04                         | 0.40                              |
| 01/28/22 | 60                  | 0.52 12.54  | 612               | 319.83                          | 921.06                    | 0.46                    | 0.0000         | 0.01                         | 0.41                              |
| 03/07/22 | 60                  | 0.20 4.81   | 821               | 164.44                          | 1,085.50                  | 0.54                    | 0.0001         | 0.05                         | 0.46                              |
| 04/14/22 | 40                  | 0.38 9.19   | 610               | 233.51                          | 1,319.01                  | 0.66                    | 0.0000         | 0.03                         | 0.49                              |
| 07/25/22 | 30                  | 0.25 6.11   | 1,696             | 431.76                          | 1,750.77                  | 0.88                    | 0.0000         | 0.01                         | 0.51                              |
| 11/07/22 | 30                  | 0.56 13.40  | 1,932             | 1,079.01                        | 2,829.78                  | 1.41                    | 0.0001         | 0.18                         | 0.69                              |

System started on 11/19/21



## **FIGURES**



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
**SITE LOCATION MAP**

**Great Western Operating Company**  
**UPRR Meyer #1**  
 SWSE Sec. 9, T2S, R63W 6th PM  
 Adams County, Colorado

|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| Project #<br><b>C021-031</b> | API #<br><b>05-001-06793</b> | Facility #<br><b>319791</b> |
| Date<br><b>09/15/21</b>      | Remediation #                | Filename<br><b>21031T</b>   |






# LEGEND

|  |  |   |   |
|--|--|---|---|
| <span style="color: red;">●</span> GEO-PROBE SOIL BORING LOCATION  | <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">FORMER</span> FORMER FACILITY | <span style="border-top: 1px dashed black; width: 20px; display: inline-block;"></span> ABOVE GROUND STORAGE TANK | <span style="border-top: 1px solid black; width: 20px; display: inline-block;"></span> CONTAINMENT BERM |
| <span style="color: green;">●</span> SOIL BORING LOCATION  |  | <span style="border-top: 1px solid black; width: 20px; display: inline-block;"></span> CONTAINMENT WALL           |   |
| <span style="border: 1px solid blue; border-radius: 50%; padding: 2px;">V</span> SOIL VAPOR EXTRACTION WELL LOCATION |  | <span style="border-top: 1px solid black; width: 20px; display: inline-block;"></span> FENCE LINE                 |   |

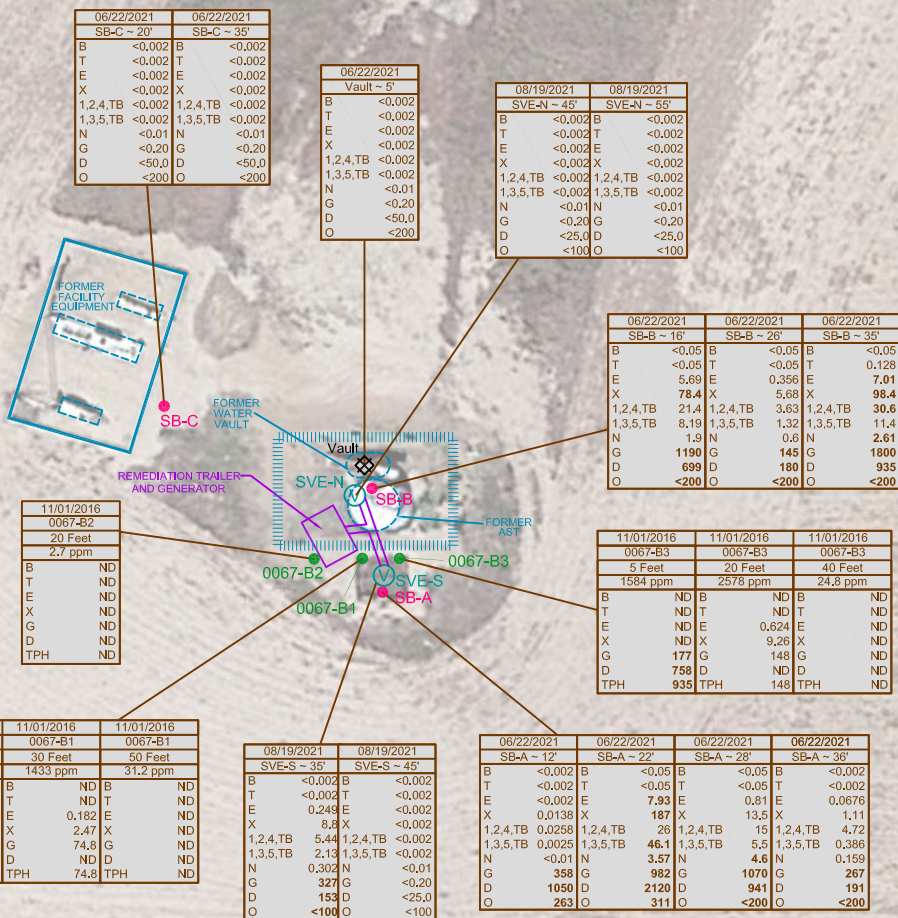
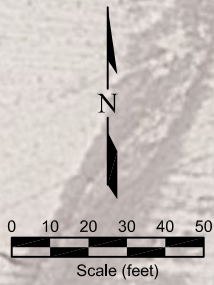
Figure 2  
SITE MAP

**Great Western Operating Company**  
**UPRR Meyer #1**  
 SWSE Sec. 9, T2S, R63W 6th PM  
 Adams County, Colorado

|                                |                              |                             |   |
|--------------------------------|------------------------------|-----------------------------|---|
| Project No.<br><b>C021-031</b> | API #<br><b>05-001-06793</b> | Facility #<br><b>319791</b> |  |
| Date<br><b>09/15/21</b>        | Remediation #                | Filename<br><b>21031Q</b>   |   |



11/01/2016 DATA TAKEN FROM AG WASSENAAR



# LEGEND

- GEO-PROBE SOIL BORING LOCATION
- SOIL BORING LOCATION
- SOIL VAPOR EXTRACTION WELL LOCATION
- SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- CONTAINMENT WALL
- FENCE LINE
- REMEDIATION SYSTEM TRENCH

| DATE SAMPLED | SAMPLE ID  | DEPTH (ft) |
|--------------|------------|------------|
| 06/22/2021   | SB-A ~ 12' |            |
| B            | <0.002     |            |
| T            | <0.002     |            |
| E            | <0.002     |            |
| X            | 0.0138     |            |
| 1,2,4,TB     | 0.0258     |            |
| 1,3,5,TB     | 0.0025     |            |
| N            | <0.01      |            |
| G            | 358        |            |
| D            | 1050       |            |
| O            | 263        |            |

| DATE SAMPLED | SAMPLE ID | DEPTH (ft) |
|--------------|-----------|------------|
| 11/01/2016   | 0067-B2   | 20 Feet    |
| B            | ND        |            |
| T            | ND        |            |
| E            | ND        |            |
| X            | ND        |            |
| G            | ND        |            |
| D            | ND        |            |
| TPH          | ND        |            |

| DATE SAMPLED | SAMPLE ID  | DEPTH (ft) |
|--------------|------------|------------|
| 06/22/2021   | Vault ~ 5' |            |
| SAR          | 2.1        |            |
| pH           | 8.07       |            |
| EC           | 0.781      |            |
| BORON        | 0.46       |            |

| DATE SAMPLED | SAMPLE ID   | DEPTH (ft) |
|--------------|-------------|------------|
| 08/19/2021   | SVE-S ~ 35' |            |
| B            | <0.002      |            |
| T            | <0.002      |            |
| E            | 0.249       |            |
| X            | 8.8         |            |
| 1,2,4,TB     | 5.44        |            |
| 1,3,5,TB     | 2.13        |            |
| N            | 0.302       |            |
| G            | 327         |            |
| D            | 153         |            |
| O            | <100        |            |

Figure 3  
REMEDIATION SYSTEM LAYOUT

Great Western Operating Company  
UPRR Meyer #1  
SWSE Sec. 9, T2S, R63W 6th PM  
Adams County, Colorado

|                                |                              |                             |  |
|--------------------------------|------------------------------|-----------------------------|--|
| Project No.<br><b>C021-031</b> | API #<br><b>05-001-06793</b> | Facility #<br><b>319791</b> |  |
| Date<br><b>12/17/21</b>        | Remediation #                | Filename<br><b>21031Q</b>   |  |

**APPENDIX A**

**LABORATORY DOCUMENTATION**



November 30, 2022

Fremont Environmental

Paul Henehan

8305 6th St, PO Box 1289

Wellington CO 80549

**Project Name - PDC - UPRR Meyer #1**

**Project Number - CO21-031**

Attached are your analytical results for PDC - UPRR Meyer #1 received by Origins Laboratory, Inc. November 08, 2022. This project is associated with Origins project number Y211223-01.

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: CO21-031

Project: PDC - UPRR Meyer #1

### CROSS REFERENCE REPORT

| Sample ID        | Laboratory ID | Matrix | Date Sampled          | Date Received    |
|------------------|---------------|--------|-----------------------|------------------|
| UPPR MEYER 1 SVE | Y211223-01    | Air    | November 7, 2022 0:00 | 11/08/2022 13:20 |

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: CO21-031  
Project: PDC - UPRR Meyer #1

www.originslaboratory.com

page 1 of 1

4211223

**ORIGINS**  
LABORATORY, INC

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

Project Manager: Henehan  
Project Name: PDC - UPRR Meyer 1  
Project Number: CO21-031  
Samples Collected By: HENEHAN

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative |     |                  | Matrix      |      |          | Analysis |            |             | Sample Instructions |
|-----------------------|--------------|--------------|-----------------|--------------|-----|------------------|-------------|------|----------|----------|------------|-------------|---------------------|
|                       |              |              |                 | Unpreserved  | HCl | HNO <sub>3</sub> | Groundwater | Soil | As Summa | Other    | GT/XXN+TMS | PH, EC, SAR |                     |
| UPRR Meyer 1 Site     | 11/7/22      |              | 1               |              |     |                  |             |      |          |          |            |             | 1                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 2                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 3                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 4                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 5                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 6                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 7                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 8                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 9                   |
|                       |              |              |                 |              |     |                  |             |      |          |          |            |             | 10                  |

Relinquished By: [Signature] Date: 11/8/22 Time: 1320  
Relinquished By: [Signature] Date: 11/8/22 Time: 1320

Received By: [Signature] Date: 11/8/22 Time: 1320  
Received By: [Signature] Date: 11/8/22 Time: 1320

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

Date Results Needed

Origins Laboratory, Inc.

*J. Bynon*

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: CO21-031

Project: PDC - UPRR Meyer #1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 221223

Client: Fremont

Client Project ID: PDC-MEYER 1

Checklist Completed by: DB

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

Date/time completed: 11/08/2022

Airbill #: ND

Matrix(s) Received: (Check all that apply): Soil/Solid Water X Other: AIR

Cooler Number/Temperature: - / - °C - / - °C - / - °C (Describe)

Thermometer ID: -

| Requirement Description   | Yes | No | N/A | Comments (if any) |
|---|-----|----|-----|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?   |     |    | X   | AIR               |
| Is there ice present (document if blue ice is used)   |     |    | X   |                   |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)   |     | X  |     |                   |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)  |     | X  |     |                   |
| Were all samples received intact <sup>(1)</sup> ?   | X   |    |     |                   |
| Was adequate sample volume provided <sup>(1)</sup> ?  | X   |    |     |                   |
| Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?  |     | X  |     |                   |
| Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?  | X   | X  |     | no sample time    |
| Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?   | X   |    |     |                   |
| Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?   | X   |    |     |                   |
| Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?   | X   |    |     |                   |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.  |     |    | X   |                   |
| 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 sub-contracted 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) |     |    | X   |                   |
| 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: DB (Project Manager)

Date/Time Reviewed: 11-9-22

Origins Laboratory, Inc.

*J. Bynon*

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: CO21-031  
Project: PDC - UPRR Meyer #1

**UPRR MEYER 1 SVE**  
**11/7/2022 12:00:00AM**

| Analyte | Result | Reporting<br>Limit | Units | Dilution | Batch | Analyst | Prepared | Analyzed | Notes |
|---------|--------|--------------------|-------|----------|-------|---------|----------|----------|-------|
|---------|--------|--------------------|-------|----------|-------|---------|----------|----------|-------|

**Origins Laboratory, Inc.**  
**Y211223-01 (Air)**

**GBTEX by TO-15M GC/MS**

|                                  |         |        |                       |       |         |    |            |            | T |
|----------------------------------|---------|--------|-----------------------|-------|---------|----|------------|------------|---|
| Gasoline Range Hydrocarbons      | 4980000 | 50000  | ug/m <sup>3</sup> Air | 250   | B2K0903 | HK | 11/09/2022 | 11/21/2022 | B |
| Benzene                          | 847     | 700    | "                     | "     | "       | HK | "          | "          |   |
| Toluene                          | 9460    | 1250   | "                     | "     | "       | HK | "          | "          |   |
| Ethylbenzene                     | 4160    | 1250   | "                     | "     | "       | HK | "          | "          |   |
| m,p-Xylene                       | 88100   | 18000  | "                     | 947.5 | "       | HK | "          | 11/21/2022 |   |
| o-Xylene                         | 24900   | 1180   | "                     | 250   | "       | HK | "          | 11/21/2022 |   |
| Surrogate: 1,2-Dichloroethane-d4 | 89.7 %  | 70-130 |                       |       | "       | "  |            | "          |   |
| Surrogate: Toluene-d8            | 103 %   | 70-130 |                       |       | "       | "  |            | "          |   |
| Surrogate: 4-Bromofluorobenzene  | 107 %   | 70-130 |                       |       | "       | "  |            | "          |   |

Origins Laboratory, Inc.



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

Paul Henehan  
Project Number: CO21-031  
Project: PDC - UPRR Meyer #1

## Volatile Organic Compounds by TO-15 in Air - Quality Control Origins Laboratory, Inc.

| Analyte                                   | Result | Reporting Limit | Units                 | Spike Level | Source Result                             | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|---|--------|-----------------|-----------------------|-------------|---|------|-------------|------|-----------|-------|
| <b>Batch B2K0903 - Default Prep - Air</b> |        |                 |                       |             |   |      |             |      |           |       |
| <b>Blank (B2K0903-BLK1)</b>               |        |                 |                       |             | Prepared: 11/09/2022 Analyzed: 11/11/2022 |      |             |      |           | T     |
| Gasoline Range Hydrocarbons               | 401    | 200             | ug/m <sup>3</sup> Air |             |   |      |             |      |           | B     |
| Benzene                                   | ND     | 2.80            | "                     |             |   |      |             |      |           | U     |
| Toluene                                   | ND     | 5.00            | "                     |             |   |      |             |      |           | U     |
| Ethylbenzene                              | ND     | 5.00            | "                     |             |   |      |             |      |           | U     |
| m,p-Xylene                                | ND     | 19.0            | "                     |             |   |      |             |      |           | U     |
| o-Xylene                                  | ND     | 4.70            | "                     |             |   |      |             |      |           | U     |
| Surrogate: 1,2-Dichloroethane-d4          | 9.18   |                 | ppbv                  | 10.0        |   | 91.8 | 70-130      |      |           |       |
| Surrogate: Toluene-d8                     | 9.71   |                 | "                     | 10.0        |   | 97.1 | 70-130      |      |           |       |
| Surrogate: 4-Bromofluorobenzene           | 9.28   |                 | "                     | 10.0        |   | 92.8 | 70-130      |      |           |       |
| <b>LCS (B2K0903-BS1)</b>                  |        |                 |                       |             | Prepared: 11/09/2022 Analyzed: 11/09/2022 |      |             |      |           | T     |
| Benzene                                   | 37.2   | 2.80            | ug/m <sup>3</sup> Air | 31.9        |   | 117  | 70-130      |      |           |       |
| Toluene                                   | 43.3   | 5.00            | "                     | 37.7        |   | 115  | 70-130      |      |           |       |
| Ethylbenzene                              | 50.1   | 5.00            | "                     | 43.4        |   | 115  | 70-130      |      |           |       |
| m,p-Xylene                                | 201    | 19.0            | "                     | 174         |   | 116  | 70-130      |      |           |       |
| o-Xylene                                  | 49.9   | 4.70            | "                     | 43.4        |   | 115  | 70-130      |      |           |       |
| Surrogate: 1,2-Dichloroethane-d4          | 10.0   |                 | ppbv                  | 10.0        |   | 100  | 70-130      |      |           |       |
| Surrogate: Toluene-d8                     | 10.4   |                 | "                     | 10.0        |   | 104  | 70-130      |      |           |       |
| Surrogate: 4-Bromofluorobenzene           | 10.1   |                 | "                     | 10.0        |   | 101  | 70-130      |      |           |       |
| <b>LCS Dup (B2K0903-BSD1)</b>             |        |                 |                       |             | Prepared: 11/09/2022 Analyzed: 11/09/2022 |      |             |      |           | T     |
| Benzene                                   | 37.8   | 2.80            | ug/m <sup>3</sup> Air | 31.9        |   | 118  | 70-130      | 1.53 | 25        |       |
| Toluene                                   | 44.4   | 5.00            | "                     | 37.7        |   | 118  | 70-130      | 2.58 | 25        |       |
| Ethylbenzene                              | 50.9   | 5.00            | "                     | 43.4        |   | 117  | 70-130      | 1.63 | 25        |       |
| m,p-Xylene                                | 203    | 19.0            | "                     | 174         |   | 117  | 70-130      | 1.33 | 25        |       |
| o-Xylene                                  | 50.5   | 4.70            | "                     | 43.4        |   | 116  | 70-130      | 1.30 | 25        |       |
| Surrogate: 1,2-Dichloroethane-d4          | 9.90   |                 | ppbv                  | 10.0        |   | 99.0 | 70-130      |      |           |       |

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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: CO21-031  
Project: PDC - UPRR Meyer #1

**Volatile Organic Compounds by TO-15 in Air - Quality Control**  
**Origins Laboratory, Inc.**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch B2K0903 - Default Prep - Air**

**LCS Dup (B2K0903-BSD1)**

Prepared: 11/09/2022 Analyzed: 11/09/2022

T

|                                 |      |  |      |      |  |     |        |  |  |  |
|---------------------------------|------|--|------|------|--|-----|--------|--|--|--|
| Surrogate: Toluene-d8           | 10.4 |  | ppbv | 10.0 |  | 104 | 70-130 |  |  |  |
| Surrogate: 4-Bromofluorobenzene | 10.0 |  | "    | 10.0 |  | 100 | 70-130 |  |  |  |

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### Notes and Definitions

- U Sample is Non-Detect.
- T The TO-15 analysis is not part of the NELAC accreditation
- B Analyte is found in the associated blank as well as in the sample (CLP B-flag).
- 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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