



**PDC Energy, Inc.**  
First Quarter 2022 Groundwater Monitoring Summary

March 17, 2022

Former Latham 2-31 & Latham Reservoir 1 Tank Battery  
SESW SEC 2 T4N R65W  
Remediation # 16260

This groundwater monitoring summary has been prepared by Tasman, Inc. for the former Latham 2-31 & Latham Reservoir 1 Tank Battery.

### Site History and Background

On September 2, 2020, pre-reclamation site investigation activities were initiated at the former Latham 2-31 & Latham Reservoir 1 tank battery location. Seven boreholes (BH01 – BH07) were advanced to a depth of 10 feet below ground surface (bgs) using direct push methods. Groundwater was encountered within the boreholes at approximately 5 feet bgs. Monitoring wells were installed in each borehole and groundwater monitoring commenced on September 14, 2020. Based on the analytical results received from groundwater monitoring activities, a historic hydrocarbon release was reported on September 23, 2020. Two additional monitoring wells (BH08 and BH09) were installed on October 13, 2020, to assess and delineate dissolved phase hydrocarbon impacts.

### Groundwater Monitoring Activities

On February 2, 2022, groundwater monitoring was conducted at all 9 monitoring wells (BH01 – BH09). Nine groundwater samples were submitted to Summit Scientific Laboratories (Summit) for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260B.

First quarter 2022 analytical results indicated that the benzene concentration was in exceedance of the applicable COGCC Table 915-1 groundwater standard in monitoring well BH04. Organic compound concentrations were below applicable regulatory standards in the remaining eight monitoring well locations. Sample locations and corresponding analytical results are illustrated on Figure 1. Groundwater elevation data is illustrated on Figure 2. Groundwater analytical results are summarized in Table 1. The laboratory analytical report is included as Attachment A.

### Current Remediation Strategy and Path Forward

Monitored natural attenuation (MNA) was selected as the remediation strategy for this site during third quarter 2020 and will remain the selected remediation strategy through the second quarter 2022.

Second quarter 2022 groundwater sampling will be conducted in May 2022.

| BH06                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 2.81       | 2.53     |

| BH05                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 3.18       | 2.96     |

| BH04                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | 86       |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | 9.1      |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 3.14       | 2.84     |

| BH08                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 2.89       | 2.52     |

| BH07                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 3.20       | 2.99     |

| BH01                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 2.97       | 2.68     |

| BH02                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 3.51       | 3.23     |

| BH03                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 3.36       | 3.10     |

| BH09                     |            |          |
|--------------------------|------------|----------|
| Compound (µg/L)          | 11/15/2021 | 2/2/2022 |
| Benzene                  | <1.0       | <1.0     |
| Toluene                  | <1.0       | <1.0     |
| Ethylbenzene             | <1.0       | <1.0     |
| Total Xylenes            | <2.0       | <2.0     |
| Naphthalene              | <1.0       | <1.0     |
| 1,2,4-TMB                | <1.0       | <1.0     |
| 1,3,5-TMB                | <1.0       | <1.0     |
| Depth to Water (ft. bgs) | 2.75       | 2.46     |

**Legend**

- Monitoring Well Location (Collected via Trimble GPS)
- Former PDC Energy (PDC) Infrastructure
- Former Occidental Petroleum (OXY) Infrastructure
- Groundwater Flow Direction (1Q22)
- Buried Infrastructure PDC Energy, Inc.
- Buried Third-Party Gas Line Noble Energy, Inc.
- Buried Third-Party Gas Line Occidental Petroleum Corp.

**Notes**

All locations are approximate unless otherwise noted.

GPS – Global Positioning System

µg/L – Micrograms per liter

ft. bgs – Feet below ground surface

Red text denotes an exceedance of COGCC standards

COGCC – Colorado Oil and Gas Conservation Commission

0 ft. 40 ft. 80 ft.

Image Source: Google Earth; 2012 Google  
Projection: WGS 84 UTM Zone 13 North

DATE: February 23, 2022

DESIGNED BY: C. Hamlin

DRAWN BY: M. Wright

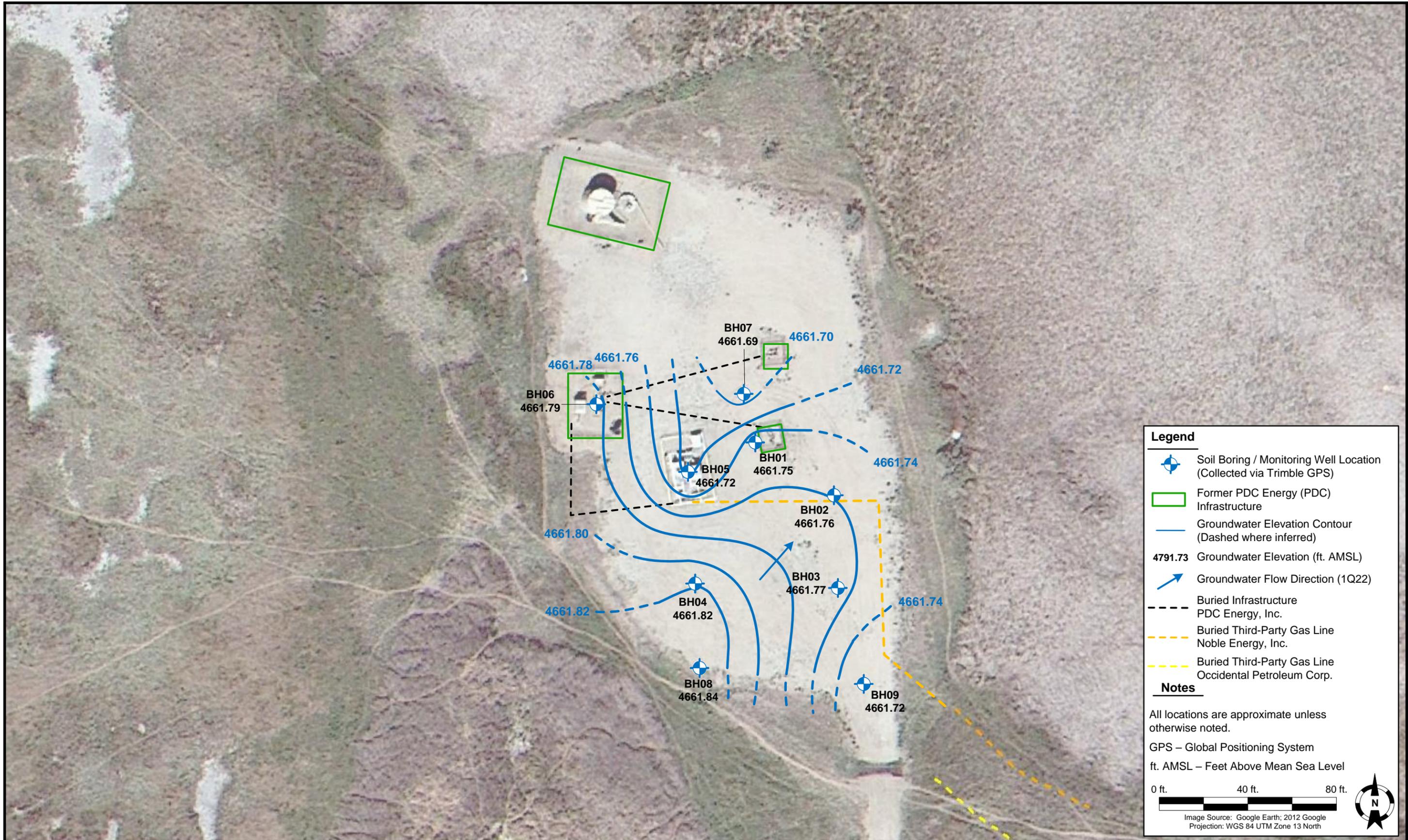


**Tasman, Inc.**  
6855 West 119<sup>th</sup> Ave  
Broomfield, CO 80020

**PDC Energy, Inc. – DJ Basin**  
**Former Latham 2-31 & Latham Reservoir 1 Tank Battery**  
SESW, Section 2, Township 4 North, Range 65 West  
Weld County, Colorado

**GROUNDWATER ANALYTICAL RESULTS MAP**

**FIGURE 1**



**Legend**

- Soil Boring / Monitoring Well Location (Collected via Trimble GPS)
- Former PDC Energy (PDC) Infrastructure
- Groundwater Elevation Contour (Dashed where inferred)
- 4791.73** Groundwater Elevation (ft. AMSL)
- Groundwater Flow Direction (1Q22)
- Buried Infrastructure PDC Energy, Inc.
- Buried Third-Party Gas Line Noble Energy, Inc.
- Buried Third-Party Gas Line Occidental Petroleum Corp.

**Notes**

All locations are approximate unless otherwise noted.

GPS – Global Positioning System

ft. AMSL – Feet Above Mean Sea Level

0 ft.      40 ft.      80 ft.

Image Source: Google Earth; 2012 Google  
Projection: WGS 84 UTM Zone 13 North

DATE: February 21, 2022

DESIGNED BY: C. Hamlin

DRAWN BY: L. Reed



**Tasman, Inc.**  
6855 West 119<sup>th</sup> Ave  
Broomfield, CO 80020

**PDC Energy, Inc. – DJ Basin**  
**Former Latham 2-31 & Latham Reservoir 1 Tank Battery**  
SESW, Section 2, Township 4 North, Range 65 West  
Weld County, Colorado

**GROUNDWATER  
ELEVATION CONTOUR  
MAP (2/2/2022)**

**FIGURE  
2**

**TABLE 1  
FORMER LATHAM 2-31; LATHAM RESERVOIR 1 TANK BATTERY  
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

| Sample ID   | Date Sampled | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | Naphthalene (µg/L) | 1,2,4-TMB (µg/L) | 1,3,5-TMB (µg/L) | Depth to Water <sup>(2)</sup> (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|----------------|----------------|---------------------|----------------------|--------------------|------------------|------------------|-------------------------------------|----------------------------------|
| <b>COGCC Table 915-1 Groundwater Standard (µg/L) <sup>(1)</sup></b> |              | <b>5</b>       | <b>560</b>     | <b>700</b>          | <b>1,400</b>         | <b>140</b>         | <b>67</b>        | <b>67</b>        | <b>-</b>                            | <b>-</b>                         |
| BH01  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.20                                | 4659.23                          |
| BH01  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.72                                | 4661.71                          |
| BH01  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.74                                | 4661.69                          |
| BH01  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 4.74                                | 4659.69                          |
| BH01  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.97                                | 4661.46                          |
| BH01  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.68                                | 4661.75                          |
| BH02  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.75                                | 4659.24                          |
| BH02  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.25                                | 4661.74                          |
| BH02  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.20                                | 4661.79                          |
| BH02  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 5.36                                | 4659.63                          |
| BH02  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.51                                | 4661.48                          |
| BH02  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.23                                | 4661.76                          |
| BH03  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.60                                | 4659.27                          |
| BH03  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.14                                | 4661.73                          |
| BH03  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.17                                | 4661.70                          |
| BH03  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.93                                | 4659.63                          |
| BH03  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.36                                | 4661.51                          |
| BH03  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.10                                | 4661.77                          |
| BH04  | 9/14/2020    | <b>55</b>      | <1.0           | 6.5                 | 94                   | NA                 | NA               | NA               | 5.39                                | 4659.27                          |
| BH04  | 9/22/2020    | <b>990</b>     | <1.0           | 110                 | 630                  | NA                 | NA               | NA               | NM                                  | NM                               |
| BH04  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | 20               | 2.89                                | 4661.77                          |
| BH04  | 5/19/2021    | <b>530</b>     | <1.0           | <1.0                | 480                  | 4.9                | <b>70</b>        | <b>76</b>        | 2.93                                | 4661.73                          |
| BH04  | 8/23/2021    | <b>250</b>     | <1.0           | 26                  | 110                  | <1.0               | 18               | 12               | 5.08                                | 4659.58                          |
| BH04  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.14                                | 4661.52                          |
| BH04  | 2/2/2022     | <b>86</b>      | <1.0           | <1.0                | 9.1                  | <1.0               | <1.0             | <1.0             | 2.84                                | 4661.82                          |
| BH05  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.44                                | 4659.24                          |
| BH05  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.98                                | 4661.70                          |
| BH05  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.00                                | 4661.68                          |
| BH05  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 5.14                                | 4659.54                          |
| BH05  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.18                                | 4661.50                          |
| BH05  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.96                                | 4661.72                          |
| BH06  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.10                                | 4659.22                          |
| BH06  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.54                                | 4661.78                          |
| BH06  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.65                                | 4661.67                          |
| BH06  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 4.83                                | 4659.49                          |
| BH06  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.81                                | 4661.51                          |
| BH06  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.53                                | 4661.79                          |
| BH07  | 9/14/2020    | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 5.45                                | 4659.23                          |
| BH07  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.02                                | 4661.66                          |
| BH07  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.02                                | 4661.66                          |
| BH07  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 5.12                                | 4659.56                          |
| BH07  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.20                                | 4661.48                          |
| BH07  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.99                                | 4661.69                          |
| BH08  | 10/22/2020   | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 4.60                                | 4659.76                          |
| BH08  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.62                                | 4661.74                          |
| BH08  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.63                                | 4661.73                          |
| BH08  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 4.73                                | 4659.63                          |
| BH08  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.89                                | 4661.47                          |
| BH08  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.52                                | 4661.84                          |
| BH09  | 10/22/2020   | <1.0           | <1.0           | <1.0                | <2.0                 | NA                 | NA               | NA               | 4.44                                | 4659.74                          |
| BH09  | 2/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.52                                | 4661.66                          |
| BH09  | 5/19/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.53                                | 4661.65                          |
| BH09  | 8/23/2021    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 4.62                                | 4659.56                          |
| BH09  | 11/15/2021   | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.75                                | 4661.43                          |

**TABLE 1**  
**FORMER LATHAM 2-31; LATHAM RESERVOIR 1 TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

| Sample ID   | Date Sampled | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | Naphthalene (µg/L) | 1,2,4-TMB (µg/L) | 1,3,5-TMB (µg/L) | Depth to Water <sup>(2)</sup> (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|----------------|----------------|---------------------|----------------------|--------------------|------------------|------------------|-------------------------------------|----------------------------------|
| <b>COGCC Table 915-1 Groundwater Standard (µg/L) <sup>(1)</sup></b> |              | <b>5</b>       | <b>560</b>     | <b>700</b>          | <b>1,400</b>         | <b>140</b>         | <b>67</b>        | <b>67</b>        | -                                   | -                                |
| BH09  | 2/2/2022     | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.46                                | 4661.72                          |

**Notes:**

1. Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.

2. Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TMB = Trimethylbenzene

COGCC = Colorado Oil and Gas Conservation Commission

µg/L = Micrograms per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

NA = Constituent not analyzed

NM = Not measured

AMSL = Above Mean Sea Level

**BOLD** = Analytical result is in exceedance of applicable standard.

## Attachment A

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 15, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

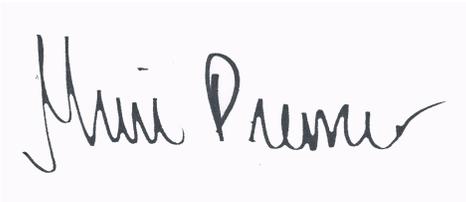
Denver, CO 80203

RE: Latham 2-31, Latham Reservoir 1

Work Order #2202034

Enclosed are the results of analyses for samples received by Summit Scientific on 02/03/22 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized initial "M".

Muri Premer For Paul Shrewsbury  
President



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
02/15/22 10:27

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| BH01      | 2202034-01    | Water  | 02/02/22 10:25 | 02/03/22 14:00 |
| BH02      | 2202034-02    | Water  | 02/02/22 10:49 | 02/03/22 14:00 |
| BH03      | 2202034-03    | Water  | 02/02/22 10:38 | 02/03/22 14:00 |
| BH04      | 2202034-04    | Water  | 02/02/22 10:45 | 02/03/22 14:00 |
| BH05      | 2202034-05    | Water  | 02/02/22 10:39 | 02/03/22 14:00 |
| BH06      | 2202034-06    | Water  | 02/02/22 10:28 | 02/03/22 14:00 |
| BH07      | 2202034-07    | Water  | 02/02/22 10:49 | 02/03/22 14:00 |
| BH08      | 2202034-08    | Water  | 02/02/22 10:35 | 02/03/22 14:00 |
| BH09      | 2202034-09    | Water  | 02/02/22 10:18 | 02/03/22 14:00 |

Summit Scientific

*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.*

# Summit Scientific

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310 ♦ 303-374-5933 (f)

Client: PDC /Tasman Geosciences

Project Manager: Mark Longhurst

Address: 6855 W. 119th St.

E-Mail: mark.longhurst@pdc.com

City/State/Zip: Broomfield CO 80020

Phone: 303-487-1228

Project Name: Latham 2-31, Latham Reservoir 1

Sampler Name: Aaron Okilber

Project Number: N/A

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative |      |      |       | Matrix |      |                |       | Analysis Requested |            |           |           |     |          | Special Instructions |          |  |  |  |  |  |  |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-------|--------------------|------------|-----------|-----------|-----|----------|----------------------|----------|--|--|--|--|--|--|
|    |                    |              |              |                 | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other | 8260 BTEX          | Napthalene | 1,2,4 TMB | 1,3,5 TMB | TDS | Chloride |                      | Sulphate |  |  |  |  |  |  |
| 1  | BH01               | 2/2/22       | 1025         | 3               | 3            |      |      |       |        | X    |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 2  | BH02               |              | 1049         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 3  | BH03               |              | 1038         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 4  | BH04               |              | 1045         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 5  | BH05               |              | 1039         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 6  | BH06               |              | 1028         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 7  | BH07               |              | 1049         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 8  | BH08               |              | 1035         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 9  | BH09               |              | 1018         |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |
| 10 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |            |           |           |     |          |                      |          |  |  |  |  |  |  |

|                                       |                        |                                 |                        |  |               |
|---------------------------------------|------------------------|---------------------------------|------------------------|--|---------------|
| Relinquished by: <i>Aaron Okilber</i> | Date/Time: 2/2/22 1516 | Received by: Tasman Lockbox     | Date/Time: 2/3/22 0800 | <b>Turn Around Time</b> (Check)<br>Same Day _____ 72 hours<br>24 hours _____ Standard <input checked="" type="checkbox"/><br>48 hours _____<br><b>Sample Integrity:</b><br>Temperature Upon Receipt: 43<br>Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No | <b>Notes:</b> |
| Relinquished by:                      | Date/Time:             | Received by: <i>[Signature]</i> | Date/Time: 2/3/22 1400 |  |               |
| Relinquished by:                      | Date/Time:             | Received by:                    | Date/Time:             |  |               |

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2202034

Client: Pbc Tasman Client Project ID: Latham 231, Latham Reservoir

Shipped Via:  H.D./P.U./FedEx/UPS/USPS/Other  Airbill #: \_\_\_\_\_

Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_ (Describe)

Temp (°C) 4.3

Thermometer ID: G86A9201901378

|  | Yes                                 | No                                  | N/A                                 | Comments (if any) |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ?<br>NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun. | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | on ICE            |
| Were all samples received intact <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Was adequate sample volume provided <sup>(1)</sup> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| If custody seals are present, are they intact <sup>(1)</sup> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Are samples with holding times due within 48 hours sample due within 48 hours present?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative.   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?<br>Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, etc.                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | HCl               |
| If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?<br>Record the pH in Comments.   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                   |
| If dissolved metals are requested, were samples field filtered?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                   |
| Additional Comments (if any):  |                                     |                                     |                                     |                   |

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

[Signature]  
Custodian Printed Name or Initials

2322  
Date/Time



PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH01**  
**2202034-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:25**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:25**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 97.9 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 100 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 100 %     |  | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH02**  
**2202034-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:49**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:49**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 106 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 102 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 105 %     | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH03**  
**2202034-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:38**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:38**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 118 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 104 %     | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH04**  
**2202034-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:45**

| Analyte                | Result     | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |            | Limit     |  |       |          |         |          |          |           |       |
| <b>Benzene</b>         | <b>86</b>  | 1.0       |  | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND         | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND         | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| <b>Xylenes (total)</b> | <b>9.1</b> | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND         | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND         | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND         | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:45**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 97.1 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 102 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 108 %     |  | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH05**  
**2202034-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:39**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:39**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 118 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 106 %     | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH06**  
**2202034-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:28**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:28**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 116 %     |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 104 %     |  | 21-167 |          | "     | "        | "        | "      |       |

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH07**  
**2202034-07 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:49**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:49**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 105 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 105 %     | 21-167 |          | "     | "        | "        | "      |       |

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH08**  
**2202034-08 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:35**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:35**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 109 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 106 %     | 21-167 |          | "     | "        | "        | "      |       |

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**BH09**  
**2202034-09 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/02/22 10:18**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BFB0065 | 02/08/22 | 02/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **02/02/22 10:18**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 106 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 102 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 104 %     | 21-167 |          | "     | "        | "        | "      |       |

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
02/15/22 10:27

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BFB0065 - EPA 5030 Water MS

##### Blank (BFB0065-BLK1)

Prepared: 02/08/22 Analyzed: 02/09/22

|   |      |     |      |      |  |      |  |        |  |  |  |
|---|------|-----|------|------|--|------|--|--------|--|--|--|
| Benzene                                 | ND   | 1.0 | ug/l |      |  |      |  |        |  |  |  |
| Toluene                                 | ND   | 1.0 | "    |      |  |      |  |        |  |  |  |
| Ethylbenzene                            | ND   | 1.0 | "    |      |  |      |  |        |  |  |  |
| Xylenes (total)                         | ND   | 2.0 | "    |      |  |      |  |        |  |  |  |
| Naphthalene                             | ND   | 1.0 | "    |      |  |      |  |        |  |  |  |
| 1,2,4-Trimethylbenzene                  | ND   | 1.0 | "    |      |  |      |  |        |  |  |  |
| 1,3,5-Trimethylbenzene                  | ND   | 1.0 | "    |      |  |      |  |        |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 13.0 |     | "    | 13.3 |  | 97.7 |  | 23-173 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 13.5 |     | "    | 13.3 |  | 101  |  | 20-170 |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | 13.4 |     | "    | 13.3 |  | 101  |  | 21-167 |  |  |  |

##### LCS (BFB0065-BS1)

Prepared: 02/08/22 Analyzed: 02/09/22

|   |      |     |      |      |  |      |  |        |  |  |  |
|---|------|-----|------|------|--|------|--|--------|--|--|--|
| Benzene                                 | 49.9 | 1.0 | ug/l | 50.0 |  | 99.9 |  | 51-132 |  |  |  |
| Toluene                                 | 50.4 | 1.0 | "    | 50.0 |  | 101  |  | 51-138 |  |  |  |
| Ethylbenzene                            | 51.5 | 1.0 | "    | 50.0 |  | 103  |  | 58-146 |  |  |  |
| m,p-Xylene                              | 99.6 | 2.0 | "    | 100  |  | 99.6 |  | 57-144 |  |  |  |
| o-Xylene                                | 49.4 | 1.0 | "    | 50.0 |  | 98.8 |  | 53-146 |  |  |  |
| Naphthalene                             | 35.9 | 1.0 | "    | 50.0 |  | 71.9 |  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene                  | 51.6 | 1.0 | "    | 50.0 |  | 103  |  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene                  | 52.0 | 1.0 | "    | 50.0 |  | 104  |  | 70-130 |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 11.8 |     | "    | 13.3 |  | 88.3 |  | 23-173 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 13.4 |     | "    | 13.3 |  | 101  |  | 20-170 |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | 13.0 |     | "    | 13.3 |  | 97.7 |  | 21-167 |  |  |  |

##### Matrix Spike (BFB0065-MS1)

Source: 2202034-01

Prepared: 02/08/22 Analyzed: 02/09/22

|   |      |     |      |      |    |      |  |        |  |  |  |
|---|------|-----|------|------|----|------|--|--------|--|--|--|
| Benzene                                 | 53.8 | 1.0 | ug/l | 50.0 | ND | 108  |  | 34-141 |  |  |  |
| Toluene                                 | 53.8 | 1.0 | "    | 50.0 | ND | 108  |  | 27-151 |  |  |  |
| Ethylbenzene                            | 54.2 | 1.0 | "    | 50.0 | ND | 108  |  | 29-160 |  |  |  |
| m,p-Xylene                              | 105  | 2.0 | "    | 100  | ND | 105  |  | 20-166 |  |  |  |
| o-Xylene                                | 52.6 | 1.0 | "    | 50.0 | ND | 105  |  | 33-159 |  |  |  |
| Naphthalene                             | 41.9 | 1.0 | "    | 50.0 | ND | 83.9 |  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene                  | 53.4 | 1.0 | "    | 50.0 | ND | 107  |  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene                  | 53.2 | 1.0 | "    | 50.0 | ND | 106  |  | 70-130 |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 12.1 |     | "    | 13.3 |    | 90.9 |  | 23-173 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 13.4 |     | "    | 13.3 |    | 101  |  | 20-170 |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | 13.2 |     | "    | 13.3 |    | 99.4 |  | 21-167 |  |  |  |

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 02/15/22 10:27

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

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

**Batch BFB0065 - EPA 5030 Water MS**

| <b>Matrix Spike Dup (BFB0065-MSD1)</b>  | <b>Source: 2202034-01</b> |     |          | Prepared: 02/08/22 |    | Analyzed: 02/09/22 |               |      |    |  |
|---|---------------------------|-----|----------|--------------------|----|--------------------|---------------|------|----|--|
| Benzene                                 | 56.6                      | 1.0 | ug/l     | 50.0               | ND | 113                | 34-141        | 5.09 | 30 |  |
| Toluene                                 | 56.3                      | 1.0 | "        | 50.0               | ND | 113                | 27-151        | 4.47 | 30 |  |
| Ethylbenzene                            | 56.8                      | 1.0 | "        | 50.0               | ND | 114                | 29-160        | 4.77 | 30 |  |
| m,p-Xylene                              | 111                       | 2.0 | "        | 100                | ND | 111                | 20-166        | 5.27 | 30 |  |
| o-Xylene                                | 55.4                      | 1.0 | "        | 50.0               | ND | 111                | 33-159        | 5.26 | 30 |  |
| Naphthalene                             | 44.4                      | 1.0 | "        | 50.0               | ND | 88.8               | 70-130        | 5.68 | 30 |  |
| 1,2,4-Trimethylbenzene                  | 56.2                      | 1.0 | "        | 50.0               | ND | 112                | 70-130        | 4.98 | 30 |  |
| 1,3,5-Trimethylbenzene                  | 55.9                      | 1.0 | "        | 50.0               | ND | 112                | 70-130        | 5.08 | 30 |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>12.3</i>               |     | <i>"</i> | <i>13.3</i>        |    | <i>92.3</i>        | <i>23-173</i> |      |    |  |
| <i>Surrogate: Toluene-d8</i>            | <i>13.6</i>               |     | <i>"</i> | <i>13.3</i>        |    | <i>102</i>         | <i>20-170</i> |      |    |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>13.2</i>               |     | <i>"</i> | <i>13.3</i>        |    | <i>99.4</i>        | <i>21-167</i> |      |    |  |

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1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Latham 2-31, Latham Reservoir 1

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
02/15/22 10:27

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference