NV

January 12, 2022

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1000 Rio Brazos Road
Aztec, NM 87410

**Subject:** **Fourth Quarter 2021 - Quarterly SVE System Update**
**Hilcorp Energy Company**
**OH Randel #5**
**San Juan County, New Mexico**
**API # 30-045-05964**
**Incident # NVF1602039091**

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of Hilcorp Energy Company (Hilcorp), presents the following fourth quarter 2021 summary report discussing the soil vapor extraction (SVE) system performance at the OH Randel #5 natural gas production well (Site). This report is being submitted as part of the proposed timeline of remediation events presented in the *Site Summary Report* submitted to the New Mexico Oil Conservation Division (NMOCD) on October 1, 2021. The report documents air sampling results and system operations to monitor SVE remediation progress.

An SVE system was originally installed by XTO Energy in 2016 and expanded in 2019 by Hilcorp with the addition of new SVE wells and a larger SVE blower. SVE well configuration and screen intervals are presented in Figure 1. In total, the SVE system consists of a two-horsepower Atlantic AB-301 regenerative blower capable of producing 110 cubic feet per minute (cfm) at 72 inches of water column vacuum. The blower is connected to an adjustable manifold that allows control over which SVE wells are currently active.

## FOURTH QUARTER 2021 ACTIVITIES

The fourth quarter 2021 air sample was collected on December 15, 2021. The air sample was collected from the inlet side of the blower using a high-vacuum air sampler and directly into a 1-liter Tedlar® bag. The sample was submitted to Hall Environmental Analysis Laboratory (Hall) and analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), by United States Environmental Protection Agency (EPA) Method 8260, and fixed gases analysis of carbon dioxide and oxygen. The PID to TVPH relationship was correlated to estimate TVPH concentrations and estimate emissions and contaminant mass removal for the fourth quarter 2021. Prior to collection, the air from the influent side was field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). Laboratory analytical results for these analytes are summarized in Table 1, with the analytical laboratory report attached as Enclosure A. Table 1 also includes historical data collected during past sampling events.

The air sample data collected to date and measured stack flow rate were utilized to calculate total emissions for the system up to December 15, 2021 (Table 2). As of December 2021, the total operational time of the system was 30,053 hours with an estimated mass source removal via the SVE system of 659,580 pounds of TVPH. The operational runtime for the fourth quarter 2021 was 99.8%. Based on Site visit observation and runtime calculations, the system was operating as anticipated during the fourth quarter of 2021.

## RECOMMENDATIONS

Currently, an additional SVE system has been purchased for the Site. The original shipping date given by the manufacturer (Republic Manufacturing) was January 7, 2022 and Hilcorp had intended to install the new system by

WSP USA
848 EAST 2ND AVENUE
DURANGO CO 81301

Tel.: 970-385-1096
wsp.com

March 8, 2022. However, Republic Manufacturing has notified WSP and Hilcorp that the SVE system will not be ready by this date, and that the new estimated shipping date is February 7, 2022 (see Enclosure B). Based on this updated shipping date, Hilcorp and WSP anticipate that the system will be installed within 60 days after shipping (April 8, 2022). Installation of the new system will be summarized in the second quarter 2022 report for the Site. Regular operation and maintenance (O&M) visits will continue to be conducted bi-weekly by WSP and/or Hilcorp personnel. During O&M visits, personnel will ensure that the SVE system is operating within normal working temperature, pressure, and vacuum ranges. Any deviations from regular operations will be noted and included in the subsequent quarterly report.

WSP appreciates the opportunity to provide this report to the NMOCD. If you have any questions or comments regarding this work plan, do not hesitate to contact me at (970) 385-1096 or via email at stuart.hyde@wsp.com or Kate Kaufman at (346) 237-2275 or via email at kkaufman@hilcorp.com.

Kind regards,

Stuart Hyde, L.G.
Environmental Geologist

Ashley Ager, M.S., P.G.
Senior Geologist

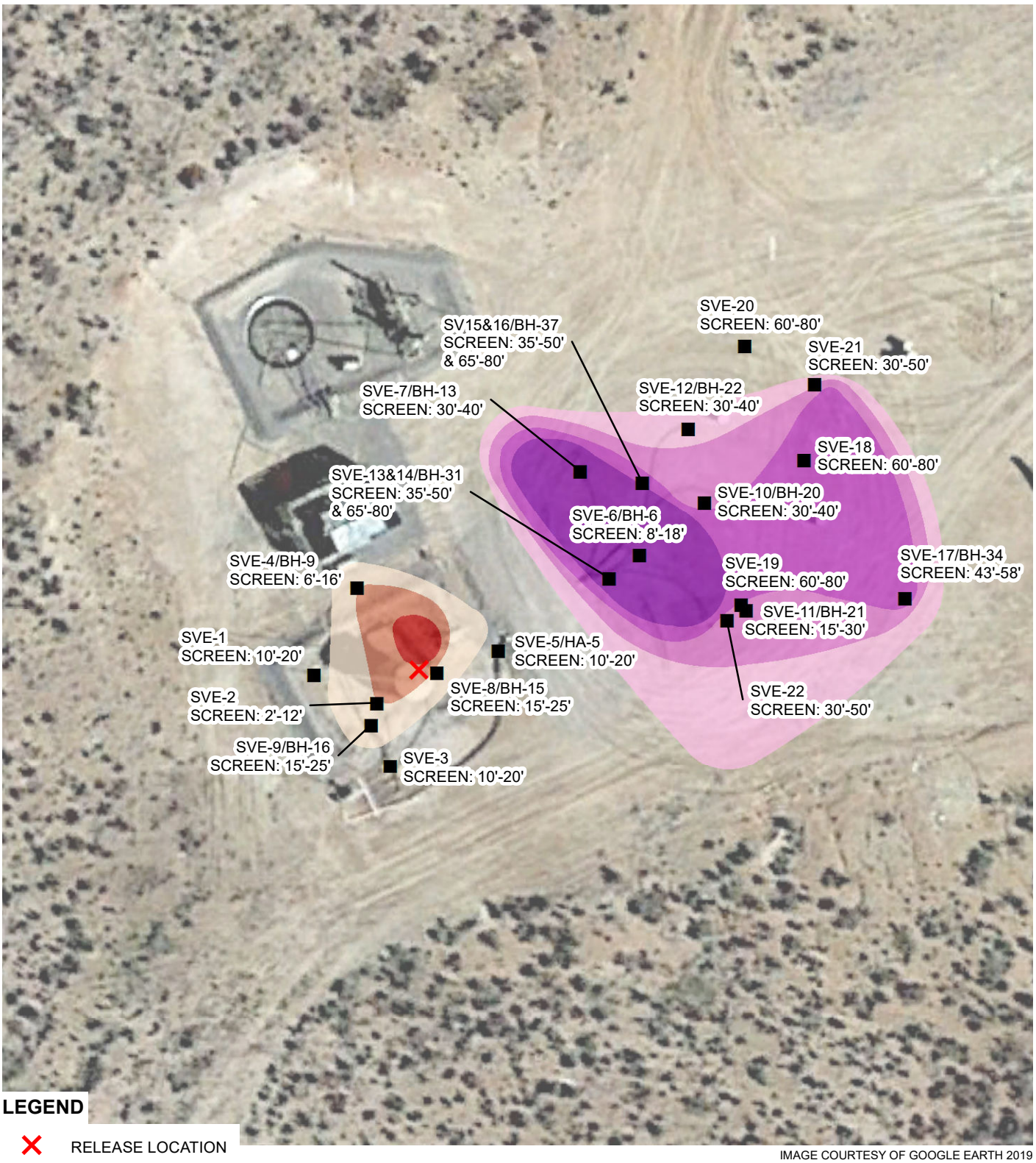
**Enclosures:**

Figure 1 – SVE System Layout

Table 1 – Soil Vapor Extraction System Analytical Results
Table 2 – Soil Vapor Extraction System Recovery & Emissions Summary

Enclosure A – Analytical Laboratory Reports
Enclosure B – Republic Manufacturing Estimated Shipping Date

# FIGURES




**LEGEND**

RELEASE LOCATION

SOIL VAPOR EXTRACTION (SVE) WELL

**INFERRED BTEX ISOCONCENTRATION (PARTS PER MILLION)**

- 50.00 - 200.00
- 50.00 - 100.00
- 200.01 - 400.00
- 100.01 - 200.00
- 400.01 - 600.00
- 200.01 - 300.00
- > 600.00

IMAGE COURTESY OF GOOGLE EARTH 2019

0 30 60

Feet

N

FIGURE 1
SVE SYSTEM LAYOUT
OH RANDEL #5
NWNW SEC 10 T26N R11W
SAN JUAN COUNTY, NEW MEXICO
**HILCORP ENERGY COMPANY**

P:\Hilcorp\GIS\MXD\017818016_OH RANDEL #5\017818016_OH RANDEL #5_FIG01_SVE_LAYOUT_2020.mxd

# TABLES

**TABLE 1**
**SOIL VAPOR EXTRACTION SYSTEM ANALYTICAL RESULTS**

**OH RANDEL #5**
**SAN JUAN COUNTY, NEW MEXICO**
**HILCORP ENERGY COMPANY**

| Date | PID (ppm) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) | TVPH (µg/L) | Oxygen | Carbon Dioxide |
|---|---|---|---|---|---|---|---|---|
| 8/11/2016 | 4,072 | 160 | 1,700 | 61 | 500 | 46,000 | NT | NT |
| 8/17/2018 | 719 | 130 | 230 | 10 | 110 | 8,900 | NT | NT |
| 6/28/2019 | 1,257 | 7,200 | 15,000 | 360 | 3,000 | 460,000 | NT | NT |
| 12/16/2019 | 1,685 | 1,800 | 4,400 | 83 | 660 | 170,000 | NT | NT |
| 3/10/2020 | 897 | 1,700 | 3,300 | 89 | 700 | 130,000 | NT | NT |
| 4/30/2020 (1) | 1,853 | 2,440 | 4,737 | 128 | 1,005 | 186,592 | NT | NT |
| 6/24/2020 (2) | NT | NT | NT | NT | NT | NT | NT | NT |
| 11/10/2020 | 1,385 | 320 | 1,100 | 43 | 380 | 43,000 | 21.45% | 0.35% |
| 2/10/2021 | 865 | 360 | 950 | 35 | 250 | 32,000 | NT | NT |
| 6/11/2021 | 400 | 170 | 390 | 11 | 110 | 18,000 | 22.05% | 0.15% |
| 9/29/2021 | 505 | 99 | 190 | 7.0 | 55 | 8,200 | NT | NT |
| 12/15/2021 | 1,163 | 130 | 290 | 6.9 | 62 | 37,137 (1) | 22.21% | 0.092% |

**Notes:**

(1) - data extrapolated from PID measurements
(2) - blower not operational for sampling in May and June 2020
µg/L - micrograms per Liter
PID - photoionization detector
ppm - parts per million
TVPH - total volatile petroleum hydrocarbons
NT - not tested

# TABLE 2
# SOIL VAPOR EXTRACTION SYSTEM RECOVERY & EMISSIONS SUMMARY

## OH RANDEL #5
## SAN JUAN COUNTY, NEW MEXICO
## HILCORP ENERGY COMPANY

### Sample Information and Lab Analysis

| Date | Total Flow (cf) | Delta Flow (cf) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) | TVPH (µg/L) | PID (ppm) |
|---|---|---|---|---|---|---|---|---|
| 8/11/2016 | 31,185 | 31,185 | 160 | 1,700 | 61 | 500 | 46,000 | 4,072 |
| 8/17/2018 | 59,647,485 | 59,616,300 | 130 | 230 | 10 | 110 | 8,900 | 719 |
| 12/16/2019 | 109,635,885 | 49,988,400 | 1,800 | 4,400 | 83 | 660 | 170,000 | 1,902 |
| 3/10/2020 | 121,707,285 | 12,071,400 | 1,700 | 3,300 | 89 | 700 | 130,000 | 897 |
| 4/30/2020 (1) | 130,917,885 | 9,210,600 | 2,440 | 4,737 | 128 | 1,005 | 186,592 | 1,853 |
| 6/24/2020 | Blower Not Operational (2) | | | | | | | |
| 11/10/2021 | 130,917,885 | 0 | 320 | 1,100 | 43 | 380 | 43,000 | 1,385 |
| 2/10/2021 | 143,580,765 | 12,662,880 | 360 | 950 | 35 | 250 | 32,000 | 865 |
| 6/11/2021 | 158,657,565 | 15,076,800 | 170 | 390 | 11 | 110 | 18,000 | 400 |
| 9/29/2021 | 168,251,932 | 9,594,367 | 99 | 190 | 7.0 | 55 | 8,200 | 505 |
| 12/15/2021 (1) | 178,208,830 | 9,956,898 | 130 | 290 | 6.9 | 62 | 37,137 | 1,163 |
| | | **Average** | **731** | **1,729** | **47** | **383** | **67,983** | **1,376** |

### Vapor Extraction Calculations

| Date | Flow Rate (cfm) | Benzene (lb/hr) | Toluene (lb/hr) | Ethylbenzene (lb/hr) | Xylenes (lb/hr) | TVPH (lb/hr) |
|---|---|---|---|---|---|---|
| 8/11/2016 | 105 | 0.1 | 0.7 | 0.02 | 0.2 | 18.1 |
| 8/17/2018 | 100 | 0.1 | 0.4 | 0.01 | 0.1 | 10.3 |
| 12/16/2019 | 110 | 0.4 | 1.0 | 0.02 | 0.2 | 36.8 |
| 3/10/2020 | 110 | 0.7 | 1.6 | 0.04 | 0.3 | 61.7 |
| 4/30/2020 (1) | 105 | 0.8 | 1.6 | 0.04 | 0.3 | 62.2 |
| 6/24/2020 | Blower Not Operational (2) | | | | | |
| 11/10/2021 | 105 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 |
| 2/10/2021 | 92 | 0.1 | 0.4 | 0.01 | 0.1 | 12.9 |
| 6/11/2021 | 90 | 0.1 | 0.2 | 0.01 | 0.1 | 8.4 |
| 9/29/2021 | 69 | 0.03 | 0.07 | 0.00 | 0.02 | 3.38 |
| 12/15/2021 | 90 | 0.04 | 0.08 | 0.00 | 0.02 | 7.63 |
| | **Average** | **98** | **0.2** | **0.6** | **0.02** | **0.1** | **22.1** |

### Pounds Extracted Over Operating Time

| Date | Total Operational Hours | Delta Hours | Benzene (lbs) | Toluene (lbs) | Ethylbenzene (lbs) | Xylenes (lbs) | TVPH (lbs) | TVPH (tons) |
|---|---|---|---|---|---|---|---|---|
| 8/11/2016 | Startup | | | | | | | |
| 8/11/2016 | 5.0 | 5.0 | 0.3 | 3.3 | 0.1 | 1.0 | 89.4 | 0.0 |
| 8/17/2018 | 9,941 | 9,936 | 539 | 3,586 | 132 | 1,133 | 102,009 | 51 |
| 12/16/2019 | 17,515 | 7,574 | 3,007 | 7,214 | 145 | 1,200 | 278,728 | 139 |
| 3/10/2020 | 19,344 | 1,829 | 1,317 | 2,897 | 65 | 512 | 112,870 | 56 |
| 4/30/2020 (1) | 20,806 | 1,462 | 1,188 | 2,307 | 62 | 489 | 90,884 | 45 |
| 6/24/2020 | Blower Not Operational (2) | | | | | | | |
| 11/10/2020 | 20,806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2/10/2021 | 23,100 | 2,294 | 268 | 809 | 31 | 249 | 29,600 | 15 |
| 6/11/2021 | 25,892 | 2,792 | 249 | 630 | 22 | 169 | 23,495 | 12 |
| 9/29/2021 | 28,209 | 2,317 | 80 | 173 | 5 | 49 | 7,835 | 4 |
| 12/15/2021 | 30,053 | 1,844 | 71 | 149 | 4 | 36 | 14,069 | 7 |
| | | **Total Extracted to Date** | **6,720** | **17,768** | **466** | **3,839** | **659,580** | **330** |

**Notes:**

(1) - data extrapolated from PID measurements
(2) - blower not operational for sampling in May and June 2020
cf - cubic feet
cfm - cubic feet per minute
µg/l - micrograms per liter
lbs - pounds
lb/hr - pounds per hour
NT - not tested
PID - photo-ionization detector
ppm - part per million
TVPH - total volatile petroleum hydrocarbons

# ENCLOSURE A – ANALYTICAL LABORATORY REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: clients.hallenvironmental.com*

January 05, 2022

Stuart Hyde

Hilcorp Energy
PO Box 61529
Houston, TX 77208-1529
TEL: (337) 276-7676
FAX

RE: OH Randel 5 OrderNo.: 2112A26

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/16/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2112A26**
Date Reported: **1/5/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Hilcorp Energy
**Project:** OH Randel 5
**Lab ID:** 2112A26-001 **Matrix:** AIR

**Client Sample ID:** Influent 12-15-21
**Collection Date:** 12/15/2021 12:30:00 PM
**Received Date:** 12/16/2021 7:52:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **CCM** | |
| Benzene | 130 | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Toluene | 290 | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Ethylbenzene | 6.9 | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2-Dichloroethane (EDC) | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2-Dibromoethane (EDB) | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Naphthalene | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1-Methylnaphthalene | ND | 20 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 2-Methylnaphthalene | ND | 20 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Acetone | ND | 50 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Bromobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Bromodichloromethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Bromoform | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Bromomethane | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 2-Butanone | ND | 50 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Carbon disulfide | ND | 50 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Carbon tetrachloride | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Chlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Chloroethane | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Chloroform | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Chloromethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 2-Chlorotoluene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 4-Chlorotoluene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| cis-1,2-DCE | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| cis-1,3-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2-Dibromo-3-chloropropane | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Dibromochloromethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Dibromomethane | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,3-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,4-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Dichlorodifluoromethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1-Dichloroethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1-Dichloroethene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,3-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 2,2-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | |
|---|---|
| * | Value exceeds Maximum Contaminant Level. |
| B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix |
| E | Estimated value |
| H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit |
| P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit |
| RL | Reporting Limit |
| S | % Recovery outside of range due to dilution or matrix interference |

**Analytical Report**
Lab Order **2112A26**
Date Reported: **1/5/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Hilcorp Energy
**Project:** OH Randel 5
**Lab ID:** 2112A26-001 **Matrix:** AIR

**Client Sample ID:** Influent 12-15-21
**Collection Date:** 12/15/2021 12:30:00 PM
**Received Date:** 12/16/2021 7:52:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **CCM** | |
| 1,1-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Hexachlorobutadiene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 2-Hexanone | ND | 50 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Isopropylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 4-Isopropyltoluene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 4-Methyl-2-pentanone | ND | 50 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Methylene chloride | ND | 15 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| n-Butylbenzene | ND | 15 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| n-Propylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| sec-Butylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Styrene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| tert-Butylbenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Tetrachloroethene (PCE) | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| trans-1,2-DCE | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| trans-1,3-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1,1-Trichloroethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,1,2-Trichloroethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Trichloroethene (TCE) | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Trichlorofluoromethane | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| 1,2,3-Trichloropropane | ND | 10 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Vinyl chloride | ND | 5.0 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Xylenes, Total | 62 | 7.5 | | µg/L | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Surr: Dibromofluoromethane | 101 | 70-130 | | %Rec | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Surr: 1,2-Dichloroethane-d4 | 93.7 | 70-130 | | %Rec | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Surr: Toluene-d8 | 101 | 70-130 | | %Rec | 50 | 12/17/2021 4:23:00 PM | R84633 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | | %Rec | 50 | 12/17/2021 4:23:00 PM | R84633 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Estimated value |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit | RL | Reporting Limit |
| S | % Recovery outside of range due to dilution or matrix interference | | |

ENERGY LABORATORIES
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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

# ANALYTICAL SUMMARY REPORT

December 20, 2021

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G21120327

Project Name: Not Indicated

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 12/17/2021 for analysis.

| Lab ID | Client Sample ID | Collect Date | Receive Date | Matrix | Test |
|---|---|---|---|---|---|
| G21120327-001 | 2112A26-001B; Influent 12-15-21 | 12/15/21 12:30 | 12/17/21 | Gas | Natural Gas Analysis - BTU<br>Natural Gas Analysis - Compressibility Factor<br>Natural Gas Analysis - GPM<br>Natural Gas Analysis - Molecular Weight<br>Natural Gas Analysis - Routine<br>Natural Gas Analysis - Pressure Base<br>Natural Gas Analysis - Psuedo-Critical Pressure<br>Natural Gas Analysis - Psuedo-Critical Temperature<br>Natural Gas Analysis - Specific Gravity<br>Natural Gas Analysis - Temperature Base |

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these tests results, please contact your Project Manager.

Report Approved By:

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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

# LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Hall Environmental
**Project:** Not Indicated
**Client Sample ID:** 2112A26-001B; Influent 12-15-21
**Location:**
**Lab ID:** G21120327-001

**Report Date:** 12/20/21
**Collection Date:** 12/15/21 12:30
**Date Received:** 12/17/21
**Sampled By:** Not Provided

| Analyses | Result | Units | Qualifier | Method | Analysis Date / By |
|---|---|---|---|---|---|
| **NATURAL GAS CHROMATOGRAPHIC ANALYSIS REPORT** | | | | | |
| Oxygen | 22.205 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Nitrogen | 77.486 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Carbon Monoxide | < 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Carbon Dioxide | 0.092 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Hydrogen Sulfide | < 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Methane | < 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Ethane | < 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Propane | < 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Isobutane | 0.001 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| n-Butane | 0.005 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Isopentane | 0.013 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| n-Pentane | 0.017 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| Hexanes plus | 0.181 | Mol % | | GPA 2261 | 12/17/21 15:27 / djb |
| **GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS** | | | | | |
| GPM Ethane | < 0.0003 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Propane | < 0.0003 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Isobutane | < 0.0003 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM n-Butane | 0.0020 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Isopentane | 0.0050 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM n-Pentane | 0.0060 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Hexanes plus | 0.0790 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Pentanes plus | 0.0900 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| GPM Total | 0.0910 | gal/MCF | | GPA 2261 | 12/17/21 15:27 / djb |
| **CALCULATED PROPERTIES** | | | | | |
| Calculation Pressure Base | 14.730 | psia | | GPA 2261 | 12/17/21 15:27 / djb |
| Calculation Temperature Base | 60 | °F | | GPA 2261 | 12/17/21 15:27 / djb |
| Compressibility Factor, Z | 1.0000 | unitless | | GPA 2261 | 12/17/21 15:27 / djb |
| Molecular Weight | 29.04 | unitless | | GPA 2261 | 12/17/21 15:27 / djb |
| Pseudo-critical Pressure, psia | 547 | psia | | GPA 2261 | 12/17/21 15:27 / djb |
| Pseudo-critical Temperature, deg R | 241 | deg R | | GPA 2261 | 12/17/21 15:27 / djb |
| Specific Gravity (air=1.000) | 1.006 | unitless | | GPA 2261 | 12/17/21 15:27 / djb |
| Gross BTU per cu ft @ std cond, dry | 10.69 | BTU/cu ft | | GPA 2261 | 12/17/21 15:27 / djb |
| Gross BTU per cu ft @ std cond, wet | 10.50 | BTU/cu ft | | GPA 2261 | 12/17/21 15:27 / djb |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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# QA/QC Summary Report

Prepared by Gillette, WY Branch

**Client:** Hall Environmental **Work Order:** G21120327 **Report Date:** 12/20/21

| Analyte | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method:** **GPA 2261** | | | | | | | | | Analytical Run: R268601 |
| **Lab ID:** **CCV1-2112170940** | Continuing Calibration Verification Standard | | | | | | | | 12/17/21 09:41 |
| Nitrogen | 99.906 | Mol % | 0.001 | 100 | 85 | 110 | | | |
| Carbon Monoxide | 0.094 | Mol % | 0.001 | 93 | 90 | 110 | | | |
| **Lab ID:** **ICV-2112170950** | Initial Calibration Verification Standard | | | | | | | | 12/17/21 09:51 |
| Oxygen | 0.379 | Mol % | 0.001 | 94 | 75 | 110 | | | |
| Nitrogen | 5.088 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Carbon Dioxide | 4.899 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.125 | Mol % | 0.001 | 126 | 100 | 136 | | | |
| Methane | 73.254 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 4.995 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Propane | 4.999 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Isobutane | 1.991 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Butane | 1.973 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| Isopentane | 0.988 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Pentane | 1.001 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Hexanes plus | 0.308 | Mol % | 0.001 | 102 | 90 | 110 | | | |
| **Lab ID:** **CCV-2112170957** | Continuing Calibration Verification Standard | | | | | | | | 12/17/21 09:58 |
| Oxygen | 0.602 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Nitrogen | 1.283 | Mol % | 0.001 | 92 | 85 | 110 | | | |
| Carbon Dioxide | 0.956 | Mol % | 0.001 | 96 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.023 | Mol % | 0.001 | 92 | 70 | 130 | | | |
| Methane | 93.575 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 1.012 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Propane | 1.006 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Isobutane | 0.493 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| n-Butane | 0.492 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| Isopentane | 0.199 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Pentane | 0.200 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Hexanes plus | 0.159 | Mol % | 0.001 | 106 | 90 | 110 | | | |
| **Lab ID:** **ICV1-2112171020** | Initial Calibration Verification Standard | | | | | | | | 12/17/21 10:20 |
| Nitrogen | 98.972 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Carbon Monoxide | 1.028 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| **Lab ID:** **CCV-2112171552** | Continuing Calibration Verification Standard | | | | | | | | 12/17/21 15:52 |
| Oxygen | 0.618 | Mol % | 0.001 | 103 | 90 | 110 | | | |
| Nitrogen | 1.326 | Mol % | 0.001 | 95 | 85 | 110 | | | |
| Carbon Dioxide | 0.954 | Mol % | 0.001 | 95 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.022 | Mol % | 0.001 | 88 | 70 | 130 | | | |
| Methane | 93.525 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 1.011 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Propane | 1.008 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Isobutane | 0.493 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| n-Butane | 0.492 | Mol % | 0.001 | 98 | 90 | 110 | | | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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# QA/QC Summary Report

Prepared by Gillette, WY Branch

**Client:** Hall Environmental **Work Order:** G21120327 **Report Date:** 12/20/21

| Analyte | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method:** **GPA 2261** | | | | | | | | Analytical Run: R268601 | |
| **Lab ID:** **CCV-2112171552** | Continuing Calibration Verification Standard | | | | | | | 12/17/21 15:52 | |
| Isopentane | 0.198 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Pentane | 0.199 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| Hexanes plus | 0.154 | Mol % | 0.001 | 103 | 90 | 110 | | | |
| **Method:** **GPA 2261** | | | | | | | | Batch: R268601 | |
| **Lab ID:** **G21120327-001ADUP** | Sample Duplicate | | | | Run: Varian GC_211217A | | | 12/17/21 15:32 | |
| Oxygen | 22.204 | Mol % | 0.001 | | | | 0.0 | 10 | |
| Nitrogen | 77.487 | Mol % | 0.001 | | | | 0.0 | 10 | |
| Carbon Monoxide | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Carbon Dioxide | 0.091 | Mol % | 0.001 | | | | 1.1 | 10 | |
| Hydrogen Sulfide | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Methane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Ethane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Propane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Isobutane | 0.001 | Mol % | 0.001 | | | | 0.0 | 10 | |
| n-Butane | 0.005 | Mol % | 0.001 | | | | 0.0 | 10 | |
| Isopentane | 0.013 | Mol % | 0.001 | | | | 0.0 | 10 | |
| n-Pentane | 0.016 | Mol % | 0.001 | | | | 6.1 | 10 | |
| Hexanes plus | 0.183 | Mol % | 0.001 | | | | 1.1 | 10 | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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# Work Order Receipt Checklist

## Hall Environmental

## G21120327

Login completed by: Chantel S. Johnson
Date Received: 12/17/2021
Reviewed by: Misty Stephens
Received by: csj
Reviewed Date: 12/20/2021
Carrier name: FedEx

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all shipping container(s)/cooler(s)? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes ☑ | No ☐ | |
| Temp Blank received in all shipping container(s)/cooler(s)? | Yes ☐ | No ☐ | Not Applicable ☑ |
| Container/Temp Blank temperature: | °C | | |
| Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☐ | Not Applicable ☑ |

### Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

### Contact and Corrective Action Comments:

None

HALL ENVIRONMENTAL ANALYSIS LABORATORY

# CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975*
*FAX: 505-345-4107*
*Website: clients.hallenvironmental.com*



| | | | |
|---|---|---|---|
| SUB CONTRATOR: **Energy Labs-Gillette** COMPANY: **Energy Laboratories** | | PHONE: **(866) 686-7175** | FAX: |
| ADDRESS: **400 W Boxelder Rd** | | ACCOUNT #: | EMAIL: |
| CITY, STATE, ZIP: **Gillette, WY 82718** | | | |

| ITEM | SAMPLE | CLIENT SAMPLE ID | BOTTLE TYPE | MATRIX | COLLECTION DATE | # CONTAINERS | ANALYTICAL COMMENTS |
|---|---|---|---|---|---|---|---|
| 1 | 2112A26-001B | Influent 12-15-21 | TEDLAR | Air | 12/15/2021 12:30:00 PM | 1 | Natural gas analysis 02, CO,CO2 |

**SPECIAL INSTRUCTIONS / COMMENTS:**

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: | Date: 12/16/2021 | Time: 10:08 AM | Received By: | Date: | Time: |
| Relinquished By: | Date: | Time: | Received By: | Date: 12/17/2021 | Time: |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: 1300 |

**TAT:** Standard ☐ **RUSH** Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of samples _____ °C Attempt to Cool ? _____

Comments: CT1170327

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: clients.hallenvironmental.com*

# Sample Log-In Check List

Client Name: Hilcorp Energy  Work Order Number: 2112A26  RcptNo: 1

Received By: **Tracy Casarrubias** 12/16/2021 7:52:00 AM

Completed By: **Tracy Casarrubias** 12/16/2021 9:21:01 AM

Reviewed By: KPG 12/16/21

## Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

## Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
5. Sample(s) in proper container(s)? Not required Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: JN 12/16/21

## Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | N/A | Good | Not Present | | | |

# Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#: MKillough@hilcorp.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: OH Randel #5

Project #:

Project Manager: Stuart Hyde - WSP

Sampler: E. Carroll
On Ice: ☐ Yes ☑ No
# of Coolers: 1
Cooler Temp(including CF): N/A (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

| Date | Time | Matrix | Sample Name | Container Type and # | Preservative Type | HEAL No. 212A26 | BTEX / MTBE / TMB's (8021) | TPH:8015D(GRO / DRO / MRO) | 8081 Pesticides/8082 PCB's | EDB (Method 504.1) | PAHs by 8310 or 8270SIMS | RCRA 8 Metals | Cl, F, Br, $NO_3$, $NO_2$, $PO_4$, $SO_4$ | 8260 (VOA) | 8270 (Semi-VOA) | Total Coliform (Present/Absent) | $O_2$, CO, $CO_2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-15 | 12:30 | Air | Influent 12-15-21 | 2 Tedlar | | 001 | | | | | | | | X | | | X |
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| Date | Time | Relinquished by: | Received by: | Via: | Date | Time |
|---|---|---|---|---|---|---|
| 12-15 | 1546 | Eric Carroll | | | 12/15/21 | 1546 |
| 12/15/21 | 1744 | | | | 12/16/21 | 7:52 |

Remarks:
CC: eric.carroll@wsp.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

# ENCLOSURE B – REPUBLIC MANUFACTURING ESTIMATED SHIPPING DATE

**From:** Matt Gress
**To:** Hyde, Stuart; Matt Henderson
**Cc:** Jake Kozlowski
**Subject:** RE: [EXTERNAL] LT Environmental - Credit Card Authorization Form
**Date:** Monday, January 10, 2022 3:13:22 PM
**Attachments:** image001.png
image002.png
image465546.png

---

Hey Stuart,

Sorry about that, was away from my desk.
Just spoke with production, currently waiting on the control panel to complete.
New estimated ship date shows 2/07/2022.
I greatly apologize for the delay, if I hear any further updates on moving this up I will be sure and reach out.

Thanks,

**Matt Gress**
**Inside Sales**
**Republic Manufacturing**
Direct: (720) 792-9550
Toll Free: 800-847-0380
www.republic-mfg.com

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Apply for credit terms here: Credit Application

Republic will have limited resources December 23, 2021 - January 2, 2022.
Click here to view our holiday schedule.

---

**From:** Hyde, Stuart <Stuart.Hyde@wsp.com>
**Sent:** Monday, January 10, 2022 2:56 PM
**To:** Matt Gress <matt.gress@republic-mfg.com>; Matt Henderson <mhenderson@hilcorp.com>
**Cc:** Jake Kozlowski <Jake.kozlowski@republic-mfg.com>
**Subject:** RE: [EXTERNAL] LT Environmental - Credit Card Authorization Form

Matt,

I just left you a message. We were wondering if the blower and control panel had shipped out as expected on the 7th. Thanks and feel free to call.

**Stuart Hyde, L.G.**
Senior Geologist
*T+ 1 970-385-1096*
*M+ 1 970-903-1607*

**From:** Matt Gress <matt.gress@republic-mfg.com>
**Sent:** Tuesday, December 14, 2021 3:59 PM
**To:** Matt Henderson <mhenderson@hilcorp.com>
**Cc:** Hyde, Stuart <Stuart.Hyde@wsp.com>; Jake Kozlowski <Jake.kozlowski@republic-mfg.com>
**Subject:** RE: [EXTERNAL] LT Environmental - Credit Card Authorization Form

Hey Matt,

I have attached your order confirmation.
Estimated ship date 1/7/22.

The remaining freight charge will be added to the credit card once this ships for you.
Please let me know if there is anything else we can do to assist.

Thanks,

**Matt Gress**
**Inside Sales**
**Republic Manufacturing**
Direct: (720) 792-9550
Toll Free: 800-847-0380
www.republic-mfg.com

Click here to view our latest videos!
Apply for credit terms here: Credit Application

Republic will have limited resources December 23, 2021 - January 2, 2022.
Click here to view our holiday schedule.

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1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
**District II**
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
**District III**
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
**District IV**
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505

CONDITIONS

Action 72597

## CONDITIONS

| Operator: | OGRID: |
|---|---|
| HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | 372171 |
| | Action Number:<br>72597 |
| | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| nvelez | Accepted for the record. See App ID 125248 for most updated status. | 9/22/2022 |