District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

# Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

| | |
|---|---|
| Name of Company ConocoPhillips Co. | Contact **Bobby Spearman** |
| Address 3401 East 30th St, Farmington, NM | Telephone No.(505)-320-3045 |
| Facility Name: Trieb Federal Com 2B | Facility Type: Gas well |

| | | |
|---|---|---|
| Surface Owner: Fed | Mineral Owner: Fed | API No. 30045301400000 |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| **H** | **33** | **30N** | **10W** | **1875** | **North** | **66** | **East** | **San Juan** |

**Latitude 36.770654 Longitude -107.882757**

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release<br>Produced water / Condensate | Volume of Release 202 bbl total<br>135bbl produced water<br>67bbl condensate | Volume Recovered<br>None |
| Source of Release<br>Production tank | Date and Hour of Occurrence<br>**4/27/16 1:00 p.m.** | Date and Hour of Discovery<br>**Same** |
| Was Immediate Notice Given?<br>☒ Yes ☐ No ☐ Not Required | If YES, To Whom?<br>**Cory Smith, Vanessa Fields w NMOCD. Katrina Diemer w BLM** | |
| By Whom? Bobby Spearman | Date and Hour 4-28-16 4:00p | |
| Was a Watercourse Reached?<br>☐ Yes ☒ No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*

OIL CONS. DIV DIST. 3
NOV 17 2016

OIL CONS. DIV DIST. 3
NOV 17 2016

Describe Cause of Problem and Remedial Action Taken.*
Corrosion in production tank caused leak. well has been shut in

Describe Area Affected and Cleanup Action Taken.*
**On Sept 1 COP completed the remediation of the spill**
**Excavation was 93' x 36 x 8'avg Deep. 992 c/yds of soil was transported to IEI Land Farm and 992 c/yds of clean soil was placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: R Spearman

Printed Name: **Bobby Spearman**

Title: **Field Environmental Specialist**

E-mail Address: **Robert.E.Spearman@conocophillips.com**

Date: 11-15-16 Phone: (505) 320-3045

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 12/27/2016 Expiration Date:

Conditions of Approval:
NCS1612329817

Attached ☐

* Attach Additional Sheets If Necessary

November 09, 2016

Robert Spearman
ConocoPhillips
San Juan Business Unit
(505) 320-3045



*Via electronic mail to:*
*SJBUE-Team@ConocoPhillips.com*

**RE: Release Assessment and Final Excavation Report**
**Trieb Fed Com 2B**
**San Juan County, New Mexico**

Dear Mr. Spearman:

On May 13 and September 1, 2016, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (COPC) Trieb Fed Com 2B located in San Juan County, New Mexico. The release consisted of approximately 135 bbls of produced water and 67 bbls of condensate. An initial release assessment was completed on May 13, 2016, and the final excavation was completed by COPC contractors while AES was on location on September 1, 2016.

## 1.0 Site Information

### *1.1 Location*

Site Name – Trieb Fed Com 2B
Location – SE¼ NE¼, Section 33, T30N, R10W, San Juan County, New Mexico
Well Head Latitude/Longitude – N36.77083 and W107.88303, respectively
BGT/Release Location Latitude/Longitude – N36.77063 and W107.88280, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map, May 2016

### *1.2 NMOCD Ranking*

In accordance with NMOCD release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills,*

604 W. Piñon St.
Farmington, NM 87401
505-564-2281

1911 Main, Ste 206
Durango, CO 81301
970-403-3084

www.animasenvironmental.com

*and Releases* (August 1993) prior to site work. The release was given a ranking score of 20 based on the following factors:

- **Depth to Groundwater:** A Pit Remediation and Closure Report form dated 2008 reported the depth to groundwater as greater than 50 feet below ground surface (bgs) while a Site Specific Hydrogeology report from December 2008 stated a depth to groundwater of 79 feet bgs. (10 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body**: An unnamed wash which discharges to the Little Slane Canyon wash is located approximately 250 feet west of the location. (10 points)

### *1.3 Assessment*

AES was initially contacted by Robert Spearman, COPC representative, on May 4, 2016, and on May 13, 2016, Sam Glasses and Corwin Lameman of AES completed the release assessment field work. The assessment included collection and field sampling of 28 soil samples from 12 soil borings (SB-1 through SB-12) in and around the release area. Soil borings were terminated on sandstone between 2.5 and 12 feet bgs. Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On September 1, 2016, AES personnel returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of eight confirmation soil samples (SC-1 through SC-8) of the walls and base of the excavation. The area of the final excavation measured approximately 93 feet by 36 feet by 5 to 13 feet in depth. The depth of the excavation was limited due to a confining sandstone unit from 5 to 13 feet bgs. Sample locations and final excavation extents are presented on Figure 4.

## 2.0 Soil Sampling

A total of 28 soil samples (SB-1 through SB-12) and 8 composite samples (SC-1 through SC-8) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbon (TPH). All composite samples (SC-1 through SC-8) collected were submitted for confirmation laboratory analysis.

## *2.1 Field Sampling*

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

### 2.1.3 Chlorides

Soil samples SB-1, SB-2, SB-8, and SB-10 were field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

## *2.2 Laboratory Analyses*

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples SC-1 through SC-8 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH as Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Motor Oil Range Organics (MRO) per method 8015.

## *2.3 Field and Laboratory Analytical Results*

On May 13, 2016, initial assessment field screening results for VOCs via OVM ranged from 0.0 in SB-4, SB-8 and SB-11 up to 3,950 ppm in SC-1. Field TPH concentrations ranged from 32.8 mg/kg in SB-11 up to 9,694 mg/kg in SB-1. The field chloride concentrations ranged from 40 mg/kg in SB-2, SB-8 and SB-10, to 80 mg/kg in SB-1.

On September 1, 2016, final excavation field screening results for VOCs via OVM ranged from 0.1 ppm in SC-1 up to 183 ppm in SC-4. Field TPH concentrations ranged from less than 20 mg/kg in SC-5, SC-6 and SC-7 up to 145 mg/kg in SC-4. Field screening VOC and

TPH results are summarized in Table 1 and on Figures 2 through 4. The AES field sampling reports are attached.

Table 1. Soil Field VOCs, TPH, and Chloride Results
Trieb Fed Com 2B Release Assessment and Final Excavation
May and September 2016

| Sample ID | Date Sampled | Sample Depth (ft bgs) | VOCs via OVM (ppm) | Field TPH (mg/kg) | Field Chlorides (mg/kg) |
|---|---|---|---|---|---|
| *NMOCD Action Level* | | | *100* | *100* | *NE* |
| SB-1 | 5/13/16 | 0.5 | **3,260** | NA | 80 |
| | | 2 | **3,596** | **7,960** | NA |
| | | 4 | **3,749** | NA | NA |
| | | 5 | **3,950** | **9,690** | 60 |
| SB-2 | 5/13/16 | 0.5 | 43.7 | NA | NA |
| | | 2 | **2,283** | **626** | 40 |
| SB-3 | 5/13/16 | 0.5 | 3.3 | NA | NA |
| | | 2.5 | 0.2 | 50.2 | NA |
| SB-4 | 5/13/16 | 2 | 2.0 | NA | NA |
| | | 5 | 2.9 | 48.6 | NA |
| | | 8 | 0.6 | NA | NA |
| | | 12 | 0.0 | 40.7 | NA |
| SB-5 | 5/13/16 | 5 | 0.8 | 50.2 | NA |
| SB-6 | 5/13/16 | 3 | 4.4 | NA | NA |
| | | 5 | 2.0 | 53.4 | NA |
| SB-7 | 5/13/16 | 3.5 | 0.1 | 51.8 | NA |
| SB-8 | 5/13/16 | 3 | 0.0 | NA | NA |
| | | 6 | 5.3 | 40.7 | NA |
| | | 10 | 20.6 | 43.9 | NA |
| | | 12 | **4,212** | **1,570** | 40 |
| SB-9 | 5/13/16 | 6 | 6.7 | NA | NA |
| | | 7.75 | 5.9 | 37.5 | NA |
| SB-10 | 5/13/16 | 6 | 0.3 | NA | NA |
| | | 12 | 2.0 | 48.6 | 40 |

| Sample ID | Date Sampled | Sample Depth (ft bgs) | VOCs via OVM (ppm) | Field TPH (mg/kg) | Field Chlorides (mg/kg) |
|---|---|---|---|---|---|
| *NMOCD Action Level* | | | *100* | *100* | *NE* |
| SB-11 | 5/13/16 | 6 | 0.0 | NA | NA |
| | | 10.5 | 0.0 | 32.8 | NA |
| SB-12 | 5/13/16 | 0.5 | 5.5 | NA | NA |
| | | 3 | 0.5 | **112** | NA |
| SC-1 | 9/1/16 | 0 to 6 | 0.1 | 24.5 | NA |
| SC-2 | 9/1/16 | 0 to 5 | 1.9 | 29.4 | NA |
| SC- 3 | 9/1/16 | 0 to 6 | 79.6 | 60.4 | NA |
| SC-4 | 9/1/16 | 5 to 6 | **183** | **145** | NA |
| SC-5 | 9/1/16 | 0 to 13 | 2.5 | <20.0 | NA |
| SC-6 | 9/1/16 | 0 to 13 | 1.9 | <20.0 | NA |
| SC-7 | 9/1/16 | 0 to 13 | 1.5 | <20.0 | NA |
| SC-8 | 9/1/16 | 13 | 89.6 | 49.0 | NA |

NA – not analyzed

Laboratory analyses for SC-1 through SC-8 were used to confirm field sampling results from the final excavation extents. Benzene concentrations were reported below laboratory detection limits in all samples (SC-1 through SC-8). Total BTEX concentrations were reported also below laboratory detection limits in all samples (SC-1 through SC-8). Total TPH concentrations were reported below laboratory detection limits in samples SC-1, SC-2, and SC-5 through SC-8, and ranged up to 84 mg/kg in SC-4. Results are summarized in Table 2 and included on Figures 3 and 4. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Trieb Fed Com 2B Release Assessment and Final Excavation
September 2016

| Sample ID | Date Sampled | Sample Depth (ft bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH (mg/kg) |
|---|---|---|---|---|---|
| *NMOCD Action Level* | | | *10* | *50* | *100* |
| SC-1 | 9/1/16 | 0 to 6 | <0.016 | <0.140 | <12.3 |
| SC-2 | 9/1/16 | 0 to 5 | <0.016 | <0.145 | <13.2 |
| SC-3 | 9/1/16 | 0 to 6 | <0.016 | <0.145 | 18 |

| Sample ID | Date Sampled | Sample Depth (ft bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH (mg/kg) |
|---|---|---|---|---|---|
| NMOCD Action Level | | | 10 | 50 | 100 |
| SC-4 | 9/1/16 | 5 to 6 | <0.015 | <0.132 | 84 |
| SC-5 | 9/1/16 | 0 to 13 | <0.016 | <0.144 | <13.1 |
| SC-6 | 9/1/16 | 0 to 13 | <0.016 | <0.140 | <13.1 |
| SC-7 | 9/1/16 | 0 to 13 | <0.016 | <0.143 | <13.0 |
| SC-8 | 9/1/16 | 13 | <0.016 | <0.143 | <12.8 |

NA – not analyzed

## 3.0 Conclusions and Recommendations

On May 13, and September 1, 2016, AES conducted a release assessment and excavation clearance of petroleum contaminated soils due to a spill of approximately 135 bbls of produced water and 67 bbls of condensate at the Trieb Fed Com 2B. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 20.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in SB-1, SB-2, SB-8, and SB-12. The highest VOC concentration was reported in SB-8 with 4,212 ppm, and the highest TPH concentration was reported in SB-1 with 9,690 mg/kg. All field results for chloride concentrations were reported at or below 80 mg/kg. Based on field concentrations, a release was confirmed.

On September 1, 2016, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for all four of the final walls of the excavation. However, sample SC-4 (north base) reported VOC concentrations above the NMOCD action level with 183 ppm. Similarly, field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for all four of the final walls of the excavation, and above the NMOCD action level for the north base of the excavation, which had a TPH concentration of 145 mg/kg.

Laboratory analytical results reported benzene, total BTEX, and TPH concentrations as GRO/DRO/MRO in all four of the final walls and base of the excavation as below NMOCD action levels.

Based on the final laboratory analytical results of the excavation of petroleum contaminated soils at the Trieb Fed Com 2B, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final sidewalls and the base of the excavation. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Emilee Skyles at (505) 564-2281.

Sincerely,

Victoria Giannola
Project Manager

Emilee Skyles
Geologist/Project Lead

Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, May 2016
- Figure 3. Release Assessment Sample Locations and Results, May 2016
- Figure 4. Final Excavation Sample Locations and Results, September 2016
- AES Field Sampling Report 051316
- AES Field Sampling Report 082516
- AES Field Sampling Report 090116
- Hall Laboratory Analytical Report 1609067
- Hall Laboratory Analytical Report 1609073

R:\Animas 2000\Dropbox (Animas Environmental)\0000 AES Server Client Projects Dropbox\2016 Client Projects\ConocoPhillips\Trieb Fed Com 2B\COPC Trieb Fed Com 2B Release Assessment and Excavation Report 110916.docx

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 08, 2016

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COPC Trieb Fed Com 2B OrderNo.: 1609073

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/2/2016 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 qualifers 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Client Sample ID:** SC-2
**Project:** COPC Trieb Fed Com 2B
**Collection Date:** 9/1/2016 10:20:00 AM
**Lab ID:** 1609073-002
**Matrix:** MEOH (SOIL)
**Received Date:** 9/2/2016 7:05:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 9/7/2016 2:49:51 PM | 27347 |
| Surr: DNOP | 90.7 | 70-130 | | %Rec | 1 | 9/7/2016 2:49:51 PM | 27347 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.2 | | mg/Kg | 1 | 9/3/2016 4:09:49 AM | 27313 |
| Surr: BFB | 86.7 | 68.3-144 | | %Rec | 1 | 9/3/2016 4:09:49 AM | 27313 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.016 | | mg/Kg | 1 | 9/3/2016 4:09:49 AM | 27312 |
| Toluene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 4:09:49 AM | 27312 |
| Ethylbenzene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 4:09:49 AM | 27312 |
| Xylenes, Total | ND | 0.065 | | mg/Kg | 1 | 9/3/2016 4:09:49 AM | 27312 |
| Surr: 4-Bromofluorobenzene | 102 | 80-120 | | %Rec | 1 | 9/3/2016 4:09:49 AM | 27312 |

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 | Value above quantitation range |
| 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Client Sample ID:** SC-5
**Project:** COPC Trieb Fed Com 2B
**Collection Date:** 9/1/2016 10:35:00 AM
**Lab ID:** 1609073-004
**Matrix:** MEOH (SOIL)
**Received Date:** 9/2/2016 7:05:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | ND | 9.9 | | mg/Kg | 1 | 9/7/2016 3:33:02 PM | 27347 |
| Surr: DNOP | 97.1 | 70-130 | | %Rec | 1 | 9/7/2016 3:33:02 PM | 27347 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.2 | | mg/Kg | 1 | 9/3/2016 4:56:55 AM | 27313 |
| Surr: BFB | 86.6 | 68.3-144 | | %Rec | 1 | 9/3/2016 4:56:55 AM | 27313 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.016 | | mg/Kg | 1 | 9/3/2016 4:56:55 AM | 27312 |
| Toluene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 4:56:55 AM | 27312 |
| Ethylbenzene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 4:56:55 AM | 27312 |
| Xylenes, Total | ND | 0.064 | | mg/Kg | 1 | 9/3/2016 4:56:55 AM | 27312 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %Rec | 1 | 9/3/2016 4:56:55 AM | 27312 |

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 | Value above quantitation range |
| 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Client Sample ID:** SC-7
**Project:** COPC Trieb Fed Com 2B
**Collection Date:** 9/1/2016 10:45:00 AM
**Lab ID:** 1609073-006
**Matrix:** MEOH (SOIL)
**Received Date:** 9/2/2016 7:05:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | ND | 9.8 | | mg/Kg | 1 | 9/7/2016 4:16:18 PM | 27347 |
| Surr: DNOP | 98.2 | 70-130 | | %Rec | 1 | 9/7/2016 4:16:18 PM | 27347 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.2 | | mg/Kg | 1 | 9/3/2016 5:43:54 AM | 27313 |
| Surr: BFB | 86.9 | 68.3-144 | | %Rec | 1 | 9/3/2016 5:43:54 AM | 27313 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.016 | | mg/Kg | 1 | 9/3/2016 5:43:54 AM | 27312 |
| Toluene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 5:43:54 AM | 27312 |
| Ethylbenzene | ND | 0.032 | | mg/Kg | 1 | 9/3/2016 5:43:54 AM | 27312 |
| Xylenes, Total | ND | 0.063 | | mg/Kg | 1 | 9/3/2016 5:43:54 AM | 27312 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %Rec | 1 | 9/3/2016 5:43:54 AM | 27312 |

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 | Value above quantitation range |
| 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1609073**

***08-Sep-16***

**Client:** Animas Environmental

**Project:** COPC Trieb Fed Com 2B

| Sample ID **1609073-001AMS** | SampType: **MS** | TestCode: **EPA Method 8015M/D: Diesel Range Organics** |
|---|---|---|
| Client ID: **SC-1** | Batch ID: **27347** | RunNo: **37024** |
| Prep Date: **9/6/2016** | Analysis Date: **9/7/2016** | SeqNo: **1147871** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 44 | 9.2 | 46.00 | 0 | 96.1 | 33.9 | 141 | | | |
| Surr: DNOP | 3.8 | | 4.600 | | 83.7 | 70 | 130 | | | |

| Sample ID **1609073-001AMSD** | SampType: **MSD** | TestCode: **EPA Method 8015M/D: Diesel Range Organics** |
|---|---|---|
| Client ID: **SC-1** | Batch ID: **27347** | RunNo: **37024** |
| Prep Date: **9/6/2016** | Analysis Date: **9/7/2016** | SeqNo: **1147872** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 47 | 9.5 | 47.39 | 0 | 99.1 | 33.9 | 141 | 6.00 | 20 | |
| Surr: DNOP | 4.0 | | 4.739 | | 85.0 | 70 | 130 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1609073**

***08-Sep-16***

**Client:** Animas Environmental

**Project:** COPC Trieb Fed Com 2B

| Sample ID **MB-27312** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **27312** | RunNo: **36969** |
| Prep Date: **9/1/2016** | Analysis Date: **9/2/2016** | SeqNo: **1146076** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 103 | 80 | 120 | | | |

| Sample ID **LCS-27312** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **27312** | RunNo: **36969** |
| Prep Date: **9/1/2016** | Analysis Date: **9/2/2016** | SeqNo: **1146077** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1.0 | 0.025 | 1.000 | 0 | 101 | 75.3 | 123 | | | |
| Toluene | 0.97 | 0.050 | 1.000 | 0 | 97.3 | 80 | 124 | | | |
| Ethylbenzene | 0.97 | 0.050 | 1.000 | 0 | 97.3 | 82.8 | 121 | | | |
| Xylenes, Total | 2.9 | 0.10 | 3.000 | 0 | 96.2 | 83.9 | 122 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 106 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

# Chain-of-Custody Record

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

| | |
|---|---|
| Client: Animas Environmental Services, LLC | ☐ Standard X Rush 3-Day Turnaround |
| | Project Name: COPC Trieb Fed Com 2B |
| Mailing Address: 604 W Pinon St. Farmington, NM 87401 | Project #: |
| Phone #: 505-564-2281 | |
| Email or Fax#: eskyles@animasenvironmental.com | Project Manager: E. Skyles |
| QA/QC Package: X Standard ☐ Level 4 (Full Validation) | |
| Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type) | Sampler: CL On Ice: ☒ Yes ☐ No Sample Temperature: 1.5 |

Analysis Request

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1609073 | BTEX - EPA 8021B | TPH (GRO/DRO) - EPA 8015 | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|
| 9/1/16 | 12:50 | SOIL | SC-1 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -001 | X | X | |
| 9/1/16 | 10:20 | SOIL | SC-2 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -002 | X | X | |
| 9/1/16 | 10:25 | SOIL | SC-3 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -003 | X | X | |
| 9/1/16 | 10:35 | SOIL | SC-5 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -004 | X | X | |
| 9/1/16 | 10:40 | SOIL | SC-6 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -005 | X | X | |
| 9/1/16 | 10:45 | SOIL | SC-7 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -006 | X | X | |
| 9/1/16 | 10:52 | SOIL | SC-8 | 1 - 4oz jar MeoH Kit | cool/ MeOH | -007 | X | X | |

| Date | Time | Relinquished by | Received by | Date | Time |
|---|---|---|---|---|---|
| 9/1/16 | 1630 | | | 9/1/16 | 1630 |
| 9/1/16 | 1815 | | | 09/02/16 | 0705 |

Remarks: Bill to Conoco Phillips
WO #21466527
Supervisor: Chirs Neuenschwander
USERID: BRADLRY
Area: 3
Ordered by: Bobby Spearman

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.