District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
Revised June 6, 2013

**For temporary pits, below-grade tanks, and multi-well fluid management pits**, submit to the appropriate NMOCD District Office.
**For permanent pits** submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

16010

# Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

***Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request***

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: ConocoPhillips Company OGRID #: 217817

OIL CONS. DIV DIST. 3
JUN 30 2017

Address: PO BOX 4289, Farmington, NM 87499
Facility or well name: SAN JUAN 28-7 UNIT 85
API Number: 30-039-07212 OCD Permit Number: _____
U/L or Qtr/Qtr A Section 6 Township 27N Range 7W County: Rio Arriba
Center of Proposed Design: Latitude 36.60854 °N Longitude -107.60944 °W NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC

** Closure notification Not Provided

Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thickness ____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: ____bbl Dimensions: L___ x W__ x D____

3.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Metal
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness 45 mil ☐ HDPE ☐ PVC ☒ Other LLDPE

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
**Fencing:** Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify _____



57 JW

6.

**Netting:** Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

***Please check a box if one or more of the following is requested, if not leave blank:***

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below.*** **Siting criteria does not apply to drying pads or above-grade tanks.**

| | |
|---|---|
| **General siting** | |
| **Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**<br>- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells | ☐ Yes ☐ No<br>☒ NA |
| **Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit .**<br>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No<br>☒ NA |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)**<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☐ No |
| Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | ☐ Yes ☐ No |
| Within an unstable area. **(Does not apply to below grade tanks)**<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | ☐ Yes ☐ No |
| Within a 100-year floodplain. **(Does not apply to below grade tanks)**<br>- FEMA map | ☐ Yes ☐ No |
| **Below Grade Tanks** | |
| Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| **Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter) | |
| Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☐ No |
| Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.<br>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |

| | |
|---|---|
| Within 100 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| **Temporary Pit Non-low chloride drilling fluid** | |
| Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☐ No |
| Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 300 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| **Permanent Pit or Multi-Well Fluid Management Pit** | |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☐ No |
| Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |

10.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.

**Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC
***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including $H_2S$, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
**Proposed Closure:** 19.15.17.13 NMAC
***Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.***

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method

14.
**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC
***Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.***

| | |
|---|---|
| Ground water is less than 25 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No ☐ NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No ☐ NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No ☐ NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☐ No |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☐ No |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance | |

| | |
|---|---|
| adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☐ No |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | ☐ Yes ☐ No |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | ☐ Yes ☐ No |
| Within a 100-year floodplain.<br>- FEMA map | ☐ Yes ☐ No |

16.
**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.
**OCD Approval:** ☐ Permit Application (including closure plan) ☒ Closure Plan ~~(only)~~ ☐ OCD Conditions (see attachment)

**OCD Representative Signature:** _____ **Approval Date:** 10/5/2017

**Title:** Environmental Specialist **OCD Permit Number:** _____

19.
**Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

***Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.***

☒ **Closure Completion Date: 5/3/2017**

20.
**Closure Method:**

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

21.
**Closure Report Attachment Checklist:** ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____°N _____ Longitude _°W _____ NAD: ☐1927 ☐ 1983

22.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print) Christine Brock Title: Regulatory Specialist

Signature: Christine Brock Date: 6/26/17

e-mail address: Christine.Brock@cop.com Telephone: (505) 326-9775

**ConocoPhillips Company**
**San Juan Basin: New Mexico Assets**
Below Grade Tank Closure Report

**Lease Name:** San Juan 28-7 Unit 85
**API No.:** 30-039-07212

In accordance with Rule 19.15.17.13 NMAC, the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

**General Plan Requirements:**

1. Prior to initiating any BGT closure, except in the case of an emergency, COPC will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or one week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner will be notified as soon as practical.

   **The surface owner notification was not provided due to BGT clean-up effort.**

2. Notice of closure will be given to the Division District Office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
   a. Operators Name
   b. Well Name and API Number
   c. Location

   **Notification is not attached.**

3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed of at one of COP's approved Salt Water Disposal facilities or at a Division District Office approved facility.

   **All recovered liquids were disposed of at an approved SWD facility or an approved Division District Office facility within 60 days of cessation of operation.**

4. Solids and sludge's will be shoveled and/or vacuumed out for disposal at one of the Division District Office approved facilities, depending on the proximity of the BGT site: Envirotech Land Farm (Permit #NM-01-011), JFJ Land Farm % Industrial Ecosystems Inc. (Permit #NM-01-0010B), and Basin Disposal (Permit #NM-01-005).

   **Any sludge or soil required to be removed to facilitate closure was transported to Envirotech Land Farm (Permit # NM-01-011) and/or JFJ Landfarm % IEI (Permit# NM-01-0010B).**

5. COPC will obtain prior approval from Division District Office to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure

report. Steel materials will be recycled or reused as approved by the Division District Office. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liner materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan County Landfill operated by Waste Management under NMED Permit SWM-052426.

**The below-grade tank was disposed of in a division-approved manner. The liner was cleaned per 19.15.35.8.C(1)(m) NMAC and disposed of at the San Juan County Regional Landfill located on CR 3100.**

6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure, will be removed.

   **All on-site equipment associated with the below-grade tank was removed.**

7. Following removal of the tank and any liner material, COPC will test the soils beneath the BGT as follows:
   a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
   b. The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13.

   **A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Table I of 19.15.17.13 and the results are attached.**

8. If the Division District Office and/or COPC determine there is a release, COPC will comply with 19.15.17.13.C.3b.

   **A release was determined for the above referenced well.**

9. Upon completion of the tank removal, pursuant to 19.15.17.13.C.3c, if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and to prevent ponding.

   **The tank removal area passed all requirements of Table I of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material which included at least one foot of suitable material to establish vegetation at the site.**

10. For those portions of the former BGT area no longer required for production activities, COPC will seed the disturbed area the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by

other Division District Office approved methods. COPC will notify the Division District Office when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels.
- Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds) OR
- Pursuant to 19.15.17.13.H.5d COPC will comply with obligations imposed by other applicable federal or tribal agencies in which there re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

**Provision 10 will be accomplished pursuant to 19.15.17.H.5d and notification will be submitted upon completion.**

11. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

    **The former BGT area is not required for production activities and reseeding will be per the procedure noted above.**

**Closure Report:**
All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division District Office Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner and Division District Office) **(Attached)**
- Backfilling & cover installation **(See Report)**
- Confirmation Sampling Analytical Results **(Attached)**
- Application Rate & Seeding techniques **(See Report)**
- Photo Documentation of Reclamation **(Attached)**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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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 **Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company** | Contact **Lisa Hunter** |
| Address **3401 East 30th St, Farmington, NM** | Telephone No. **(505) 258-1607** |
| Facility Name: **San Juan 28-7 85** | Facility Type: **Gas well** |

| | | |
|---|---|---|
| Surface Owner **BLM** | Mineral Owner **FED** | API No.**3003906900** |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| **G** | **25** | **27** | **6** | **1840** | **North** | **1460** | **East** | **Rio Arriba** |

**Latitude 36.60854 Longitude -107.60944**

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release **Hydrocarbon** | Volume of Release **Unknown** | Volume Recovered 30 c/yds |
| Source of Release **BGT** | Date and Hour of Occurrence **Unknown** | Date and Hour of Discovery **10-21-2016** |
| Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required | If YES, To Whom? **N/A** | |
| By Whom? **N/A** | Date and Hour **N/A** | |
| Was a Watercourse Reached? ☐ Yes ☒ No | If YES, Volume Impacting the Watercourse. **N/A** | |

If a Watercourse was Impacted, Describe Fully.*
**N/A**

Describe Cause of Problem and Remedial Action Taken.*
Historic contamination was encountered after soil sample was taken on 10-21-16 during a BGT Resample Project.

Describe Area Affected and Cleanup Action Taken.*
Delineation of the BGT area on 12-5-17 indicates a 10'x18' x 6' area that will be excavated to at or below action levels.

**Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 10' x 18' x 5' in depth and 30 c/yds of soil was transported to IEI land farm. NMOCD approved COPC request to spray potassium permanganate and backfill – no further action required. The closure report and laboratory analysis is attached for review. Risk Rank:**

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: | OIL CONSERVATION DIVISION<br>Approved by Environmental Specialist: | |
| Printed Name: Lisa Hunter | | |
| Title: **Field Environmental Specialist** | Approval Date: | Expiration Date: |
| E-mail Address: **Lisa.Hunter @cop.com** | Conditions of Approval: | Attached ☐ |
| Date: 06-14-17 Phone: 505-258-1607 | | |

* Attach Additional Sheets If Necessary

June 6, 2017

Lisa Hunter and Robert Spearman
ConocoPhillips
San Juan Business Unit
505) 326-9786 / (505) 320-3045

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

**RE: Below Grade Tank Closure, Release Assessment and Final Excavation Report**
**San Juan 28-7 Unit 85**
**Rio Arriba County, New Mexico**

Dear Ms. Hunter and Mr. Spearman:

On October 21 and December 5, 2016, and May 3, 2017, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, a release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (COP) San Juan 28-7 Unit 85 located in Rio Arriba County, New Mexico. An initial release assessment was completed on December 5, 2016, and the final excavation was completed by COP contractors prior to AES' arrival on location on May 3, 2017.

## 1.0 Site Information

### *1.1 Location*

Site Name – San Juan 28-7 Unit 85
Legal Description – NE¼ NE¼, Section 6, T27N, R7W, Rio Arriba County, New Mexico
Well Latitude/Longitude – N36.60844 and W107.60919, respectively
BGT Latitude/Longitude – N36.60854 and W107.60944, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, 2016 and 2017

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

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

www.animasenvironmental.com

## *1.2 NMOCD Ranking*

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) and New Mexico Office of the State Engineer (NMOSE) databases were reviewed, and a site-specific hydrogeology report dated December 2008 reported the depth to groundwater at 84 feet below ground surface (bgs). However, at the request of the NMOCD, the most stringent sample result criteria were applied to this BGT. Note these criteria normally apply to sites with a depth to groundwater of 0 to 50 feet.

## *1.3 Assessment*

AES was initially contacted by Robert Spearman of COP on October 17, 2016, and on October 21, 2016, Corwin Lameman and Sam Glasses of AES traveled to the location. Soil sampling consisted of collection of one soil sample (BGT S-1) from below the former BGT footprint. Soil sample results for BGT S-1 were above the action levels, and a release was confirmed.

On December 5, 2016, AES personnel returned to the location to complete the release assessment field work. The assessment included collection and field sampling of eight samples from eight soil borings (SB-1 through SB-8). Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On May 3, 2017, AES returned to the location to collect confirmation soil samples of the excavation extents. The field sampling activities included collection of five confirmation soil samples (SC-1 through SC-5) from the walls and base of the excavation. The area of the final excavation measured approximately 10 feet by 18 feet by 5 feet in depth. Note that the depth of the excavation was limited due to a confining sandstone unit around 5 feet bgs. Sample locations and final excavation extents are presented on Figure 4.

# 2.0 Soil Sampling

## *2.1 Field Sampling*

### 2.1.1 Volatile Organic Compounds

Field screening for volatile organic compound (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 total petroleum hydrocarbons (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' *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

#### 2.1.3 Chlorides

Soil sample BGT S-1 was 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 sample BGT S-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH per USEPA Method 418.1;
- TPH as gasoline range, diesel range, and motor oil range organics (GRO/DRO/MRO) per USEPA Method 8015; and
- Chlorides per USEPA Method 300.0.

Soil samples SC-1 through SC-5 were laboratory analyzed for:

- BTEX per USEPA Method 8021B; and
- TPH as gasoline range, diesel range, and motor oil range organics (GRO/DRO/MRO) per USEPA Method 8015.

## *2.3 Field and Laboratory Analytical Results*

Field sampling results and laboratory analytical results are summarized in Tables 1 and 2, respectively, and on Figures 3 and 4. The AES Field Sampling Reports and laboratory analytical reports are attached.

Table 1. Soil Field VOCs and TPH Results
San Juan 28-7 Unit 85 Release Assessment and Final Excavation
December 2016 and May 2017

| ***Sample ID*** | ***Date Sampled*** | ***Depth below BGT (ft)*** | ***VOCs OVM Reading (ppm)*** | ***Field TPH (418.1) (mg/kg)*** |
|---|---|---|---|---|
| | *NMOCD Action Level* | | *--** | *100** |
| SB-1 | 12/5/16 | 5 | 179 | **3,690** |
| SB-2 | 12/5/16 | 5 | 0.1 | <20.0 |
| SB-3 | 12/5/16 | 2 | 0.0 | <20.0 |
| SB-4 | 12/5/16 | 5.75 | 637 | **2,840** |
| SB-5 | 12/5/16 | 5 | 0.0 | <20.0 |
| SB-6 | 12/5/16 | 1.25 | 0.0 | NA |
| SB-7 | 12/5/16 | 5.5 | 0.0 | <20.0 |
| SB-8 | 12/5/16 | 1.25 | 0.0 | NA |
| SC-1 | 5/3/17 | 0 to 5 | 0.3 | **105** |
| SC-2 | 5/3/17 | 0 to 5 | 0.0 | 27.6 |
| SC-3 | 5/3/17 | 0 to 5 | 0.2 | **211** |
| SC-4 | 5/3/17 | 0 to 5 | 0.4 | 69.2 |
| SC-5 | 5/3/17 | 5 | 53.3 | **324** |

NA – not analyzed
*Action level determined by *NMAC 19.15.17.13 Table 1*

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides
San Juan 28-7 Unit 85 BGT Closure and Final Excavation
October 2016 and May 2017

| Sample ID | Date Sampled | Sample Depth (ft bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH 418.1 | TPH-GRO (mg/kg) | TPH-DRO (mg/kg) | TPH-MRO (mg/kg) | Chlorides (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|
| | *NMOCD Action Level* | | *10** | *50** | *100** | | *100** | | *600** |
| BGT S-1 | 10/21/16 | 5.5 | <0.024 | 0.21 | **5,000** | **45** | **2,400** | **1,000** | <30 |
| SC-1 | 5/3/17 | 0 to 5 | <0.014 | <0.130 | NA | **<2.9** | **44** | **67** | NA |
| SC-2 | 5/3/17 | 0 to 5 | <0.015 | <0.134 | NA | <3.0 | <9.6 | <48 | NA |
| SC-3 | 5/3/17 | 0 to 5 | <0.014 | <0.122 | NA | **<2.7** | **47** | **81** | NA |
| SC-4 | 5/3/17 | 0 to 5 | <0.017 | <0.150 | NA | **<3.3** | **34** | **69** | NA |
| SC-5 | 5/3/17 | 5 | <0.016 | <0.145 | NA | **<3.2** | **110** | **78** | NA |

NA – not analyzed
*Action level determined by *NMAC 19.15.17.13 Table 1*

## 3.0 Conclusions and Recommendations

### *3.1 BGT Closure*

On October 21, 2016, AES conducted BGT closure sampling at the location. NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13 Table 1, and for this location the most stringent action levels were utilized per NMOCD. BGT closure sampling laboratory analytical results were below the NMOCD action levels of 10 mg/kg for benzene and 50 mg/kg for total BTEX. In contrast, results exceeded the NMOCD action level of 100 mg/kg for TPH, with BGT S-1 reporting laboratory concentrations of 5,000 mg/kg (TPH 418.1) and 3,445 mg/kg (TPH as GRO/DRO/MRO). Chloride concentrations in BGT S-1 were reported below the NMOCD action level of 600 mg/kg, with less than 30 mg/kg. Based on lab concentrations, a release was confirmed at the former BGT at the San Juan 28-7 Unit 85 location.

### *3.2 Release Assessment and Excavation Clearance*

On December 5, 2016, AES completed a release assessment at the location. Release assessment field sampling results above the NMOCD action level of 100 mg/kg TPH were reported in SB-1 and SB-4. The highest field TPH concentration was reported in SB-1, with a concentration of 3,690 mg/kg TPH. Excavation of the release area was recommended.

On May 3, 2017, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed field TPH concentrations exceeded the applicable NMOCD action level of 100 mg/kg in SC-1 (north wall), SC-3 (east wall), and SC-5 (base). The highest field TPH concentration was reported in SC-5, with a concentration of 324 mg/kg TPH. Additionally, laboratory analytical results reported TPH concentrations (as GRO/DRO/MRO) in SC-1, SC-3, and SC-5, as well as SC-4 (west wall), as above NMOCD action levels. The highest laboratory TPH concentration was reported in SC-5, at a concentration of 188 mg/kg TPH. Note that the MRO concentration in SC-1, SC-3, SC-4 and SC-5 made up a significant portion of the total TPH concentration for each sample. MRO is generally considered to be significantly less mobile in the subsurface than GRO and DRO. Combined GRO/DRO concentrations for the samples were below 100 mg/kg, with the exception of SC-5 (110 mg/kg DRO). Laboratory analytical results reported benzene and total BTEX concentrations in all samples as below NMOCD action levels.

Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-7 Unit 85, benzene and total BTEX were below the applicable NMOCD action levels for the final base and sidewalls. In contrast, TPH exceeded the NMOCD action level for the base and all sidewalls, except at SC-2. However, NMOCD granted approval to spray with a potassium permanganate solution and backfill the excavation, and no further work is recommended.

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

Sincerely,

David J. Reese
Environmental Scientist

Elizabeth McNally, P.E.

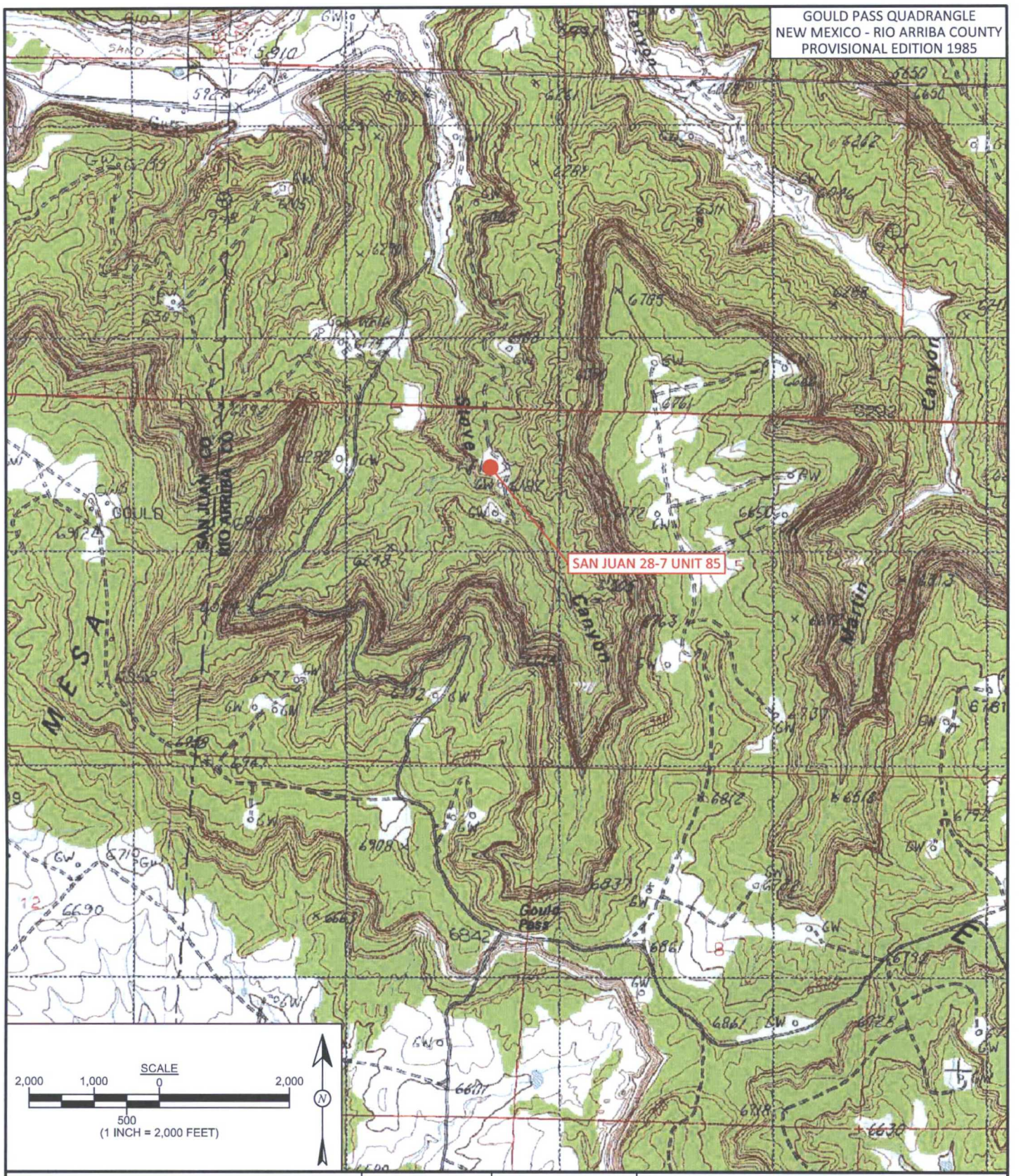
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, 2016 and 2017
Figure 3. BGT Closure and Release Assessment Sample Locations and Results, October and December 2016

Figure 4. Final Excavation Sample Locations and Results, May 2017
AES Field Sampling Report 120516
AES Field Sampling Report 050317
Hall Laboratory Analytical Report 1610B75
Hall Laboratory Analytical Report 1705220
Hall Laboratory Analytical Report 1705221

R:\Animas 2000\Dropbox (Animas Environmental)\0000 AES Server Client Projects Dropbox\2017 Client Projects\ConocoPhillips\SJ 28-7 Unit 85\San Juan 28-7 Unit 85 BGT Closure, Release, and Excavation Report 060617.docx

Figures




| | | |
|---|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** December 15, 2016 | **FIGURE 1** |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** May 31, 2017 | **TOPOGRAPHIC SITE LOCATION MAP** |
| **CHECKED BY:** D. Reese | **DATE CHECKED:** May 31, 2017 | ConocoPhillips<br>SAN JUAN 28-7 UNIT 85<br>NE¼ NE¼, SECTION 6, T27N, R7W<br>RIO ARRIBA COUNTY, NEW MEXICO<br>N36.60844, W107.60919 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** May 31, 2017 | |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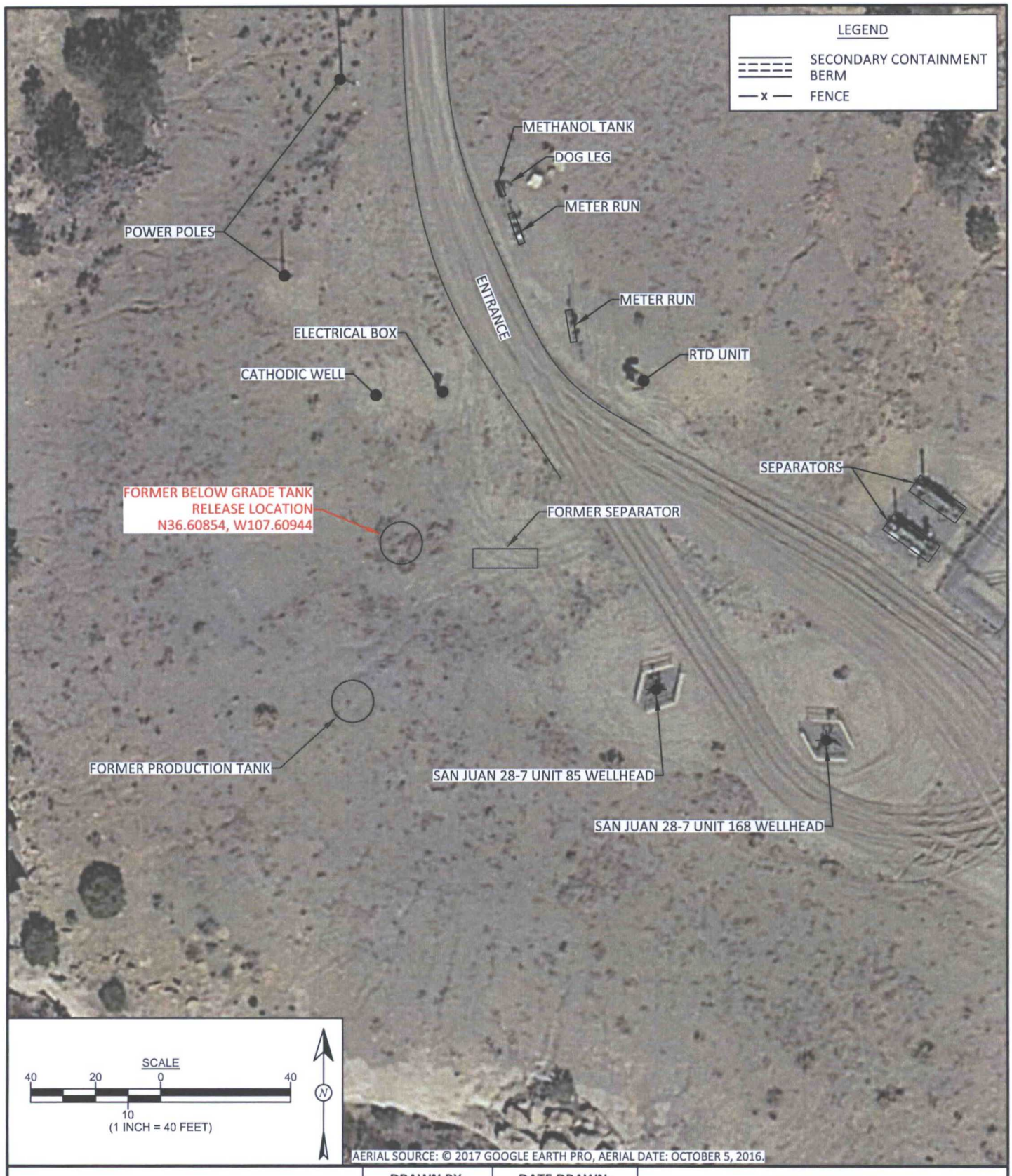


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| | |
|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** December 15, 2016 |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** May 31, 2017 |
| **CHECKED BY:** D. Reese | **DATE CHECKED:** May 31, 2017 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** May 31, 2017 |

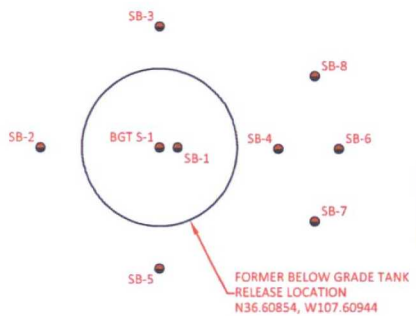
# FIGURE 2

**AERIAL SITE MAP**
**2016 AND 2017**
ConocoPhillips
SAN JUAN 28-7 UNIT 85
NE¼ NE¼, SECTION 6, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60844, W107.60919

# FIGURE 3

**BGT CLOSURE AND RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS OCTOBER AND DECEMBER 2016**

ConocoPhillips
SAN JUAN 28-7 UNIT 85
NE¼ NE¼, SECTION 6, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60844, W107.60919




**Field Sampling Results**

| Sample ID | Date | Depth (ft) | PID-OVM (ppm) | TPH (mg/kg) |
|---|---|---|---|---|
| NMOCD ACTION LEVEL | | | -- | 100 |
| SB-1 | 12/5/16 | 5 | 179 | **3,690** |
| SB-2 | 12/5/16 | 5 | 0.1 | <20.0 |
| SB-3 | 12/5/16 | 2 | 0.0 | <20.0 |
| SB-4 | 12/5/16 | 5.75 | 637 | **2,840** |
| SB-5 | 12/5/16 | 5 | 0.0 | <20.0 |
| SB-6 | 12/5/16 | 1.25 | 0.0 | NA |
| SB-7 | 12/5/16 | 5.5 | 0.0 | <20.0 |
| SB-8 | 12/5/16 | 1.25 | 0.0 | NA |
| NA - NOT ANALYZED | | | | |

**Laboratory Analytical Results**

| Sample ID | Date | Depth (ft) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH 418.1 (mg/kg) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) | TPH - MRO (mg/kg) | Chlorides (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|
| NMOCD ACTION LEVEL | | | 10 | 50 | 100 | 100 | | | 600 |
| BGT S-1 | 10/21/16 | 5.5 | <0.024 | 0.21 | **5,000** | **45** | **2,400** | **1,000** | <30 |
| ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B, 418.1, 8015D AND 300.0. | | | | | | | | | |

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| DRAWN BY: | DATE DRAWN: |
|---|---|
| C. Lameman | December 15, 2016 |
| **REVISIONS BY:** | **DATE REVISED:** |
| C. Lameman | May 31, 2017 |
| **CHECKED BY:** | **DATE CHECKED:** |
| D. Reese | May 31, 2017 |
| **APPROVED BY:** | **DATE APPROVED:** |
| E. McNally | May 31, 2017 |

**LEGEND**

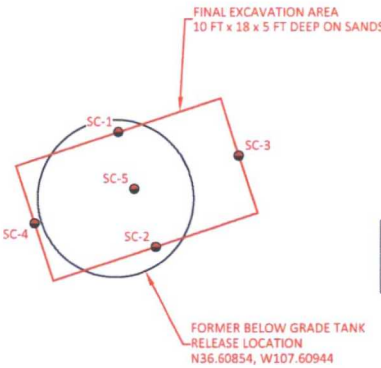
● SOIL BORING LOCATIONS

N

SCALE
10 5 0 10
2
(1 INCH = 10 FEET)

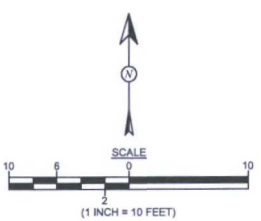
# FIGURE 4

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS**
**MAY 2017**
ConocoPhillips
SAN JUAN 28-7 UNIT 85
NE¼ NE¼, SECTION 6, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60844, W107.60919










| Field Sampling Results | | | | |
|---|---|---|---|---|
| Sample ID | Date | Depth (ft) | PID-OVM (ppm) | TPH (mg/kg) |
| NMOCD ACTION LEVEL | | | 100 | 100 |
| SC-1 | 5/3/17 | 0 to 5 | 0.3 | **105** |
| SC-2 | 5/3/17 | 0 to 5 | 0.0 | 27.6 |
| SC-3 | 5/3/17 | 0 to 5 | 0.2 | **211** |
| SC-4 | 5/3/17 | 0 to 5 | 0.4 | 69.2 |
| SC-5 | 5/3/17 | 5 | 53.3 | **324** |
| ALL SAMPLES WERE COMPOSITE SAMPLES. | | | | |

| Laboratory Analytical Results | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sample ID | Date | Depth (ft) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) | TPH - MRO (mg/kg) |
| NMOCD ACTION LEVEL | | | 10 | 50 | | 100 | |
| SC-1 | 5/3/17 | 0 to 5 | <0.014 | <0.130 | **<2.9** | **44** | **67** |
| SC-2 | 5/3/17 | 0 to 5 | <0.015 | <0.134 | <3.0 | <9.6 | <48 |
| SC-3 | 5/3/17 | 0 to 5 | <0.014 | <0.122 | **<2.7** | **47** | **81** |
| SC-4 | 5/3/17 | 0 to 5 | <0.017 | <0.150 | **<3.3** | **34** | **69** |
| SC-5 | 5/3/17 | 5 | <0.016 | <0.145 | **<3.2** | **110** | **78** |
| ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D. | | | | | | | |

**NOTES**

1. NMOCD APPROVED APPLICATION OF POTASSIUM PERMANGANATE SOLUTION AND BACKFILL OF EXCAVATION.

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animasenvironmental.com

| DRAWN BY: | DATE DRAWN: |
|---|---|
| C. Lameman | May 31, 2017 |
| **REVISIONS BY:** | **DATE REVISED:** |
| C. Lameman | May 31, 2017 |
| **CHECKED BY:** | **DATE CHECKED:** |
| E. McNally | May 31, 2017 |
| **APPROVED BY:** | **DATE APPROVED:** |
| E. McNally | May 31, 2017 |

**LEGEND**

● SAMPLE LOCATIONS

Sampling Reports

# Field Screening Release Assessment Field Report

Date: 12-5-16

Client: Conoco Phillips
AES Personnel: S. Glasses
C. Lameman
Billing Info:
Well or Lease Name: San Juan 28-7 85
WO #: 21739267
CoP Onsite Supervisor: Corwin Lameman
Beginning mileage: 52636
Supervisor: Schaaphok
Site Arrival Time: 0930
Ending Mileage: 52712
USER: KAITLW
Site Departure Time: 1440
Release Source: Historic BGT
Area: 7
Well Head (GPS): 36.60844, -107.60919
Activity Code:
Land Jurisdiction: BLM
Release Location (GPS): 36.60854, -107.60944
Ordered by: Bobby Spearman
County/State: San Juan / NM
Site Rank: 10

| Buck Machine # | 1 | | |
|---|---|---|---|
| Concentration | 50 mg/kg | 100 mg/kg | 500 mg/kg |
| Calibration ABS Values | 0.075 | 0.131 | 0.653 |

Equipment in place: 2 Productions Tanks, 2 Separators 2 WH, 1 BGT, 2 Meter Runs
Photos taken:

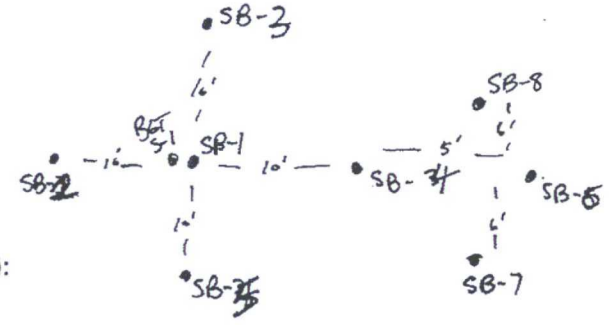
Project Details: was a BGT Regulatory sample. Laboratory Results were higher than BGT closure. Delineation was required.

Initial Recommendations:

Limitiations: Sandstone and Shale ranging from 1.5' to 5.5'

Site Sketch (DOES NOT REPLACE SITE MAP) and Current Excavation Dimensions:
See Aerial Map As Well

Horizontal (Cross-Section View):




Vertical (Plan View):

Animas Environmental Services, LLC
604 W Pinon St. Farmington, NM 87401 office # 505-564-2281
1911 N Main, Ste 280, Durango, CO 81301

Well or Lease Name: San Jose 29-7 85

Date: 12-5-16

AES personnel: S. Glasses, C. Lawerman

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | OVM Time | Field TPH (mg/kg) | Field TPH Analysis Time | ABS | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| SB-1 @ 5' | 12-5-16 | 1033 | Center | 179 | 1052 | 3693.66 | 1109 | 0.245x10 | on SS. Blk Staining, Sand & Clay |
| SB-2 @ 5' | | 1125 | W of Ctr | 0.1 | 1132 | <20.0 | 1140 | 8.008 | on SS, No Staining, No Odor, Dry, Some Roots |
| SB-3 @ 2' | | 1135 | N of Ctr | 0.0 | 1147 | <20.0 | 1157 | 0.007 | on SS, No Staining or Odor, Dry, Some Wood |
| SB-4 @ 5.75' | | 1205 | E of Ctr | 637 | 1213 | 2,842.48 | 1224 | 0.190x10 | on SS, Blk Staining, V. Slg Odor, Moist |
| SB-5 @ 5' | | 1253 | S of Ctr | 0.0 | 1307 | <20.0 | 1309 | 0.015 | on SS, No Staining or Odor, Moist Sand & Cl |
| SB-6 @ 1.25' | | 1300 | E of SB-4 | 0.0 | 1315 | — | — | — | on Shale, Hard, Dry, No Staining or Odor Auger Refusal |
| SB-7 @ 5.5' | | 1317 | SW of SB-4 | 0.0 | 1335 | <20.0 | 1339 | 0.009 | on SS, Sand, No Staining or Odr, Moist |
| SB-8 @ 1.25' | | 1410 | N of SB-4 | 0.0 | 1430 | — | — | - | on SS, Tan, No Odor, No Staining Dry |
| | | | | | | | | | |
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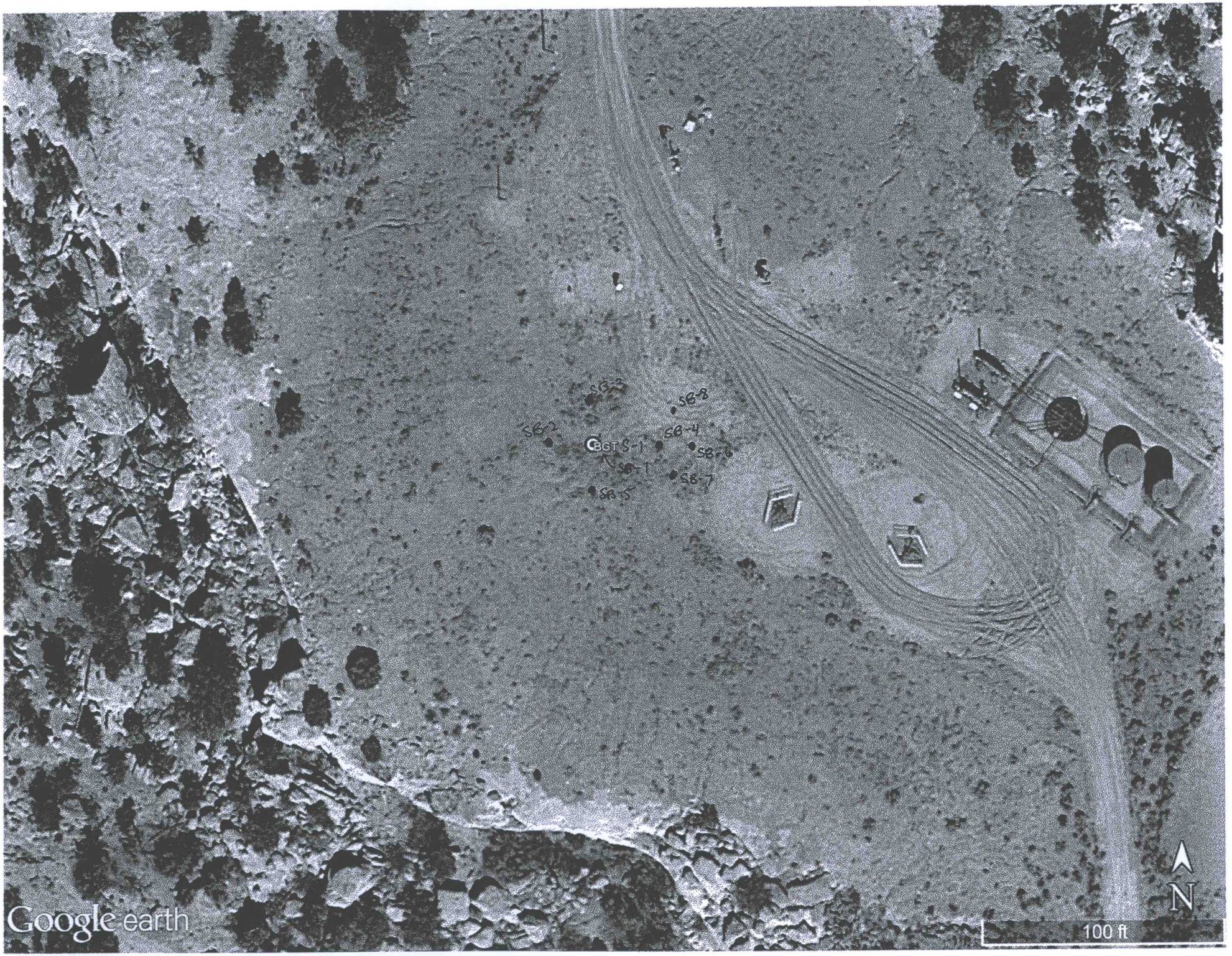
*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.


SB-2
SB-3
SB-8
SB-4
SB-6
SB-1
SB-7
SB-5
BGT S-1
N
100 ft
Google earth

# Field Screening Release Assessment Field Report

Date: 5-3-17

Client: CoPC
AES Personnel: C. Lameman
*Billing Info:*

Well or Lease Name: San Juan 28-7 Unit 85
WO #: 10398827

CoP Onsite Supervisor: Eduardo Montoya
Beginning mileage: 54312
Supervisor: Randy Smith

Site Arrival Time: 833
Ending Mileage: 54388
USER: KAITLN

Site Departure Time: 1109
Release Source: Historic BGT
Area: 7

Well Head (GPS): 36.60844, -107.60919
Activity Code: —

Land Jurisdiction: BLM
Release Location (GPS): 36.60854, -107.60944
Ordered by: Lisa Hunter / Eduardo Montoya → per Randy

County/State: SJ / NM

Site Rank: 10 But under 100 Stringent per NMOCD

Equipment in place: Rprod. tank, BGT, 2 Sep, 2 WH, Meter Run RTD

Photos taken:

| Buck Machine # | 1 | | |
|---|---|---|---|
| Concentration | 50 mg/kg | 100 mg/kg | 500 mg/kg |
| Calibration ABS Values | 0.078 | 0.156 | 0.791 |

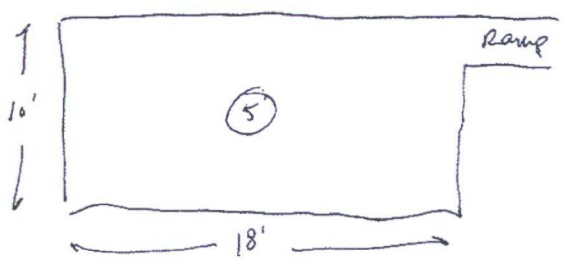
Project Details: Excavation Clearance for Historic BGT.

Initial Recommendations:

Limitiations: Excavation on SS @ 5'.

Site Sketch (DOES NOT REPLACE SITE MAP) and Current Excavation Dimensions:

Horizontal (Cross-Section View):




Vertical (Plan View):

Animas Environmental Services, LLC
604 W Pinon St. Farmington, NM 87401 office # 505-564-2281
1911 N Main, Ste 206, Durango, CO 81301

Edwardo called 843

Well or Lease Name: San Juan 28-7 Unit 85

Date: 5-3-17

AES personnel: C. Lowerman

<100

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | OVM Time | Field TPH (mg/kg) | Field TPH Analysis Time | ABS | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| SC-1 | 5.3.17 | 843 | N Wall | 0,3 | 949 | 105 | 559 | 0.081 | 0-5' 3-Day |
| SC-2 | | 847 | S Wall | 0.0 | 950 | 27.6 | 1001 | 0.020 | 0-5' 3-Day |
| SC-3 | | 853 | E Wall | 0.2 | 951 | 211 | 1004 | 0.165 | 0-5' Same Day |
| SC-4 | | 902 | W Wall | 0.4 | 952 | 69.2 | 1007 | 0.053 | 0-5' 3-Day |
| SC-5 | | 907 | Base | 53.3 | 953 | 324 | 1010 | 0.255 | 5' Same Day |
| | | | | | | | | | |
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*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.

Analytical Reports

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*

November 03, 2016

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

RE: COPC San Juan 28-7 UNIT 85 OrderNo.: 1610B75

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/22/2016 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

**Analytical Report**
Lab Order **1610B75**
Date Reported: **11/3/2016**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Client Sample ID:** BGT S-1
**Project:** COPC San Juan 28-7 UNIT 85
**Collection Date:** 10/21/2016 2:13:00 PM
**Lab ID:** 1610B75-001 **Matrix:** SOIL **Received Date:** 10/22/2016 8:20:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 418.1: TPH** | | | | | | Analyst: **MAB** | |
| Petroleum Hydrocarbons, TR | 5000 | 190 | | mg/Kg | 10 | 10/26/2016 | 28272 |
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **LGT** | |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/31/2016 2:12:47 PM | 28379 |
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | 2400 | 99 | | mg/Kg | 10 | 10/27/2016 1:22:03 PM | 28288 |
| Motor Oil Range Organics (MRO) | 1000 | 490 | | mg/Kg | 10 | 10/27/2016 1:22:03 PM | 28288 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 10/27/2016 1:22:03 PM | 28288 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | 45 | 4.8 | | mg/Kg | 1 | 10/26/2016 1:21:45 PM | 28268 |
| Surr: BFB | 321 | 68.3-144 | S | %Rec | 1 | 10/26/2016 1:21:45 PM | 28268 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.024 | | mg/Kg | 1 | 10/26/2016 1:21:45 PM | 28268 |
| Toluene | ND | 0.048 | | mg/Kg | 1 | 10/26/2016 1:21:45 PM | 28268 |
| Ethylbenzene | ND | 0.048 | | mg/Kg | 1 | 10/26/2016 1:21:45 PM | 28268 |
| Xylenes, Total | 0.21 | 0.096 | | mg/Kg | 1 | 10/26/2016 1:21:45 PM | 28268 |
| Surr: 4-Bromofluorobenzene | 107 | 80-120 | | %Rec | 1 | 10/26/2016 1:21:45 PM | 28268 |

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#: **1610B75**

*03-Nov-16*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 UNIT 85

| Sample ID **MB-28379** | SampType: **MBLK** | TestCode: **EPA Method 300.0: Anions** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **28379** | RunNo: **38358** |
| Prep Date: **10/31/2016** | Analysis Date: **10/31/2016** | SeqNo: **1197670** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID **LCS-28379** | SampType: **LCS** | TestCode: **EPA Method 300.0: Anions** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **28379** | RunNo: **38358** |
| Prep Date: **10/31/2016** | Analysis Date: **10/31/2016** | SeqNo: **1197671** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 14 | 1.5 | 15.00 | 0 | 92.1 | 90 | 110 | | | |

**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#: **1610B75**

*03-Nov-16*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 UNIT 85

| Sample ID **MB-28272** | SampType: **MBLK** | TestCode: **EPA Method 418.1: TPH** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **28272** | RunNo: **38229** | | | | | | | |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193363** | Units: **mg/Kg** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Petroleum Hydrocarbons, TR | ND | 20 | | | | | | | | |

| Sample ID **LCS-28272** | SampType: **LCS** | TestCode: **EPA Method 418.1: TPH** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **28272** | RunNo: **38229** | | | | | | | |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193364** | Units: **mg/Kg** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Petroleum Hydrocarbons, TR | 110 | 20 | 100.0 | 0 | 112 | 80.7 | 121 | | | |

| Sample ID **LCSD-28272** | SampType: **LCSD** | TestCode: **EPA Method 418.1: TPH** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS02** | Batch ID: **28272** | RunNo: **38229** | | | | | | | |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193365** | Units: **mg/Kg** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Petroleum Hydrocarbons, TR | 110 | 20 | 100.0 | 0 | 113 | 80.7 | 121 | 1.22 | 20 | |

**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#: **1610B75**

*03-Nov-16*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 UNIT 85

| Sample ID **LCS-28288** | SampType: **LCS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **28288** | | | RunNo: **38253** | | | | | |
| Prep Date: **10/26/2016** | Analysis Date: **10/27/2016** | | | SeqNo: **1193973** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 49 | 10 | 50.00 | 0 | 98.4 | 62.6 | 124 | | | |
| Surr: DNOP | 4.7 | | 5.000 | | 94.1 | 70 | 130 | | | |

| Sample ID **MB-28288** | SampType: **MBLK** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **28288** | | | RunNo: **38253** | | | | | |
| Prep Date: **10/26/2016** | Analysis Date: **10/27/2016** | | | SeqNo: **1193974** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 10 | | 10.00 | | 103 | 70 | 130 | | | |

**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#: **1610B75**

*03-Nov-16*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 UNIT 85

| Sample ID **MB-28268** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **28268** | RunNo: **38235** |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193447** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 860 | | 1000 | | 86.3 | 68.3 | 144 | | | |

| Sample ID **LCS-28268** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **28268** | RunNo: **38235** |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193448** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 26 | 5.0 | 25.00 | 0 | 104 | 74.6 | 123 | | | |
| Surr: BFB | 970 | | 1000 | | 97.1 | 68.3 | 144 | | | |

**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#: **1610B75**

*03-Nov-16*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 UNIT 85

| Sample ID **MB-28268** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **28268** | RunNo: **38235** |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193477** 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 | | 101 | 80 | 120 | | | |

| Sample ID **LCS-28268** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **28268** | RunNo: **38235** |
| Prep Date: **10/25/2016** | Analysis Date: **10/26/2016** | SeqNo: **1193478** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.96 | 0.025 | 1.000 | 0 | 96.3 | 75.2 | 115 | | | |
| Toluene | 0.99 | 0.050 | 1.000 | 0 | 99.1 | 80.7 | 112 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 100 | 78.9 | 117 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 99.7 | 79.2 | 115 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 108 | 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 |

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*

# Sample Log-In Check List

Client Name: Animas Environmental  Work Order Number: 1610B75  RcptNo: 1

Received by/date: 10/22/16

Logged By: Lindsay Mangin  10/22/2016 8:20:00 AM

Completed By: Lindsay Mangin  10/25/2016 9:20:05 AM

Reviewed By: JC 10/25/16

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Custody seals intact on sample bottles? | Yes [ ] | No [ ] | Not Present [x] |
| 2. Is Chain of Custody complete? | Yes [x] | No [ ] | Not Present [ ] |
| 3. How was the sample delivered? | Courier | | |

## Log In

| | | | |
|---|---|---|---|
| 4. Was an attempt made to cool the samples? | Yes [x] | No [ ] | NA [ ] |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes [x] | No [ ] | NA [ ] |
| 6. Sample(s) in proper container(s)? | Yes [x] | No [ ] | |
| 7. Sufficient sample volume for indicated test(s)? | Yes [x] | No [ ] | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes [x] | No [ ] | |
| 9. Was preservative added to bottles? | Yes [ ] | No [x] | NA [ ] |
| 10. VOA vials have zero headspace? | Yes [ ] | No [ ] | No VOA Vials [x] |
| 11. Were any sample containers received broken? | Yes [ ] | No [x] | |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes [x] | No [ ] | # of preserved bottles checked for pH: (<2 or >12 unless noted) |
| 13. Are matrices correctly identified on Chain of Custody? | Yes [x] | No [ ] | Adjusted? |
| 14. Is it clear what analyses were requested? | Yes [x] | No [ ] | |
| 15. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes [x] | No [ ] | Checked by: |

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]

Person Notified: _____ Date: _____

By Whom: _____ Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 3.4 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 604 W Pinon St.
Farmington, NM 87401

Phone #: 505-564-2281

Email or Fax#: eskyles@animasenvironmental.com

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

Accreditation:
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
X Standard ☐ Rush _____

Project Name:
COPC SAN JUAN 28-7 UNIT 85

Project #:

Project Manager:
E. Skyles

Sampler: CL/SG

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.4


**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 Request ID | Container Type and # | Preservative Type | HEAL No. 1610375 | BTEX - 8021B | TPH - EPA 418.1 | TPH - 8015 | Chlorides - 300.0 | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/21/16 | 14:13 | SOIL | BGT S-1 | 1 - 4 oz. | cool | -001 | X | X | X | X | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 10/21/16 | 1622 | | | 10/21/16 | 1622 |
| 10/21/16 | 2100 | | | 10/22/16 | 0820 |

Remarks: Bill to Conoco Phillips
WO # 21739267
Supervisor: Schaaphok
USERID: KAITLW
Area: 7
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.

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*

May 05, 2017

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

RE: COPC San Juan 28 7 Unit 85 OrderNo.: 1705220

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/4/2017 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **1705220**
Date Reported: **5/5/2017**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Client Sample ID:** SC-3
**Project:** COPC San Juan 28 7 Unit 85
**Collection Date:** 5/3/2017 8:53:00 AM
**Lab ID:** 1705220-001
**Matrix:** MEOH (SOIL)
**Received Date:** 5/4/2017 7:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **JME** | |
| Diesel Range Organics (DRO) | 47 | 9.5 | | mg/Kg | 1 | 5/4/2017 12:42:20 PM | 31564 |
| Motor Oil Range Organics (MRO) | 81 | 47 | | mg/Kg | 1 | 5/4/2017 12:42:20 PM | 31564 |
| Surr: DNOP | 85.4 | 70-130 | | %Rec | 1 | 5/4/2017 12:42:20 PM | 31564 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 2.7 | | mg/Kg | 1 | 5/4/2017 11:03:34 AM | G42543 |
| Surr: BFB | 93.4 | 54-150 | | %Rec | 1 | 5/4/2017 11:03:34 AM | G42543 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.014 | | mg/Kg | 1 | 5/4/2017 11:03:34 AM | B42543 |
| Toluene | ND | 0.027 | | mg/Kg | 1 | 5/4/2017 11:03:34 AM | B42543 |
| Ethylbenzene | ND | 0.027 | | mg/Kg | 1 | 5/4/2017 11:03:34 AM | B42543 |
| Xylenes, Total | ND | 0.054 | | mg/Kg | 1 | 5/4/2017 11:03:34 AM | B42543 |
| Surr: 4-Bromofluorobenzene | 106 | 66.6-132 | | %Rec | 1 | 5/4/2017 11:03:34 AM | B42543 |

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 San Juan 28 7 Unit 85
**Collection Date:** 5/3/2017 9:07:00 AM
**Lab ID:** 1705220-002
**Matrix:** MEOH (SOIL)
**Received Date:** 5/4/2017 7:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **JME** | |
| Diesel Range Organics (DRO) | 110 | 9.5 | | mg/Kg | 1 | 5/4/2017 12:14:35 PM | 31564 |
| Motor Oil Range Organics (MRO) | 78 | 48 | | mg/Kg | 1 | 5/4/2017 12:14:35 PM | 31564 |
| Surr: DNOP | 85.9 | 70-130 | | %Rec | 1 | 5/4/2017 12:14:35 PM | 31564 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.2 | | mg/Kg | 1 | 5/4/2017 11:26:57 AM | G42543 |
| Surr: BFB | 96.4 | 54-150 | | %Rec | 1 | 5/4/2017 11:26:57 AM | G42543 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.016 | | mg/Kg | 1 | 5/4/2017 11:26:57 AM | B42543 |
| Toluene | ND | 0.032 | | mg/Kg | 1 | 5/4/2017 11:26:57 AM | B42543 |
| Ethylbenzene | ND | 0.032 | | mg/Kg | 1 | 5/4/2017 11:26:57 AM | B42543 |
| Xylenes, Total | ND | 0.065 | | mg/Kg | 1 | 5/4/2017 11:26:57 AM | B42543 |
| Surr: 4-Bromofluorobenzene | 105 | 66.6-132 | | %Rec | 1 | 5/4/2017 11:26:57 AM | B42543 |

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#: **1705220**

*05-May-17*

**Client:** Animas Environmental

**Project:** COPC San Juan 28 7 Unit 85

| Sample ID **MB-31564** | SampType: **MBLK** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **31564** | | | RunNo: **42525** | | | | | |
| Prep Date: **5/4/2017** | Analysis Date: **5/4/2017** | | | SeqNo: **1337677** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 8.1 | | 10.00 | | 81.1 | 70 | 130 | | | |

| Sample ID **LCS-31564** | SampType: **LCS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **31564** | | | RunNo: **42525** | | | | | |
| Prep Date: **5/4/2017** | Analysis Date: **5/4/2017** | | | SeqNo: **1337679** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 45 | 10 | 50.00 | 0 | 90.6 | 63.8 | 116 | | | |
| Surr: DNOP | 4.6 | | 5.000 | | 92.2 | 70 | 130 | | | |

| Sample ID **MB-31549** | SampType: **MBLK** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **31549** | | | RunNo: **42525** | | | | | |
| Prep Date: **5/3/2017** | Analysis Date: **5/4/2017** | | | SeqNo: **1338403** | | Units: **%Rec** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 8.3 | | 10.00 | | 83.4 | 70 | 130 | | | |

| Sample ID **LCS-31549** | SampType: **LCS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **31549** | | | RunNo: **42525** | | | | | |
| Prep Date: **5/3/2017** | Analysis Date: **5/4/2017** | | | SeqNo: **1338404** | | Units: **%Rec** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.5 | | 5.000 | | 90.5 | 70 | 130 | | | |

**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#: **1705220**

*05-May-17*

**Client:** Animas Environmental
**Project:** COPC San Juan 28 7 Unit 85

| Sample ID **RB** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **G42543** | RunNo: **42543** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338389** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 920 | | 1000 | | 92.0 | 54 | 150 | | | |

| Sample ID **2.5UG GRO LCS** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **G42543** | RunNo: **42543** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338390** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 25 | 5.0 | 25.00 | 0 | 99.3 | 76.4 | 125 | | | |
| Surr: BFB | 1000 | | 1000 | | 101 | 54 | 150 | | | |

**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#: **1705220**

*05-May-17*

**Client:** Animas Environmental

**Project:** COPC San Juan 28 7 Unit 85

| Sample ID **RB** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **B42543** | RunNo: **42543** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338395** 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 | 66.6 | 132 | | | |

| Sample ID **100NG BTEX LCS** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **B42543** | RunNo: **42543** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338396** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.89 | 0.025 | 1.000 | 0 | 89.3 | 80 | 120 | | | |
| Toluene | 0.92 | 0.050 | 1.000 | 0 | 92.0 | 80 | 120 | | | |
| Ethylbenzene | 0.93 | 0.050 | 1.000 | 0 | 93.5 | 80 | 120 | | | |
| Xylenes, Total | 2.8 | 0.10 | 3.000 | 0 | 95.0 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 108 | 66.6 | 132 | | | |

**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

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

# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1705220** RcptNo: 1

Received By: **Ashley Gallegos** **5/4/2017 7:00:00 AM**

Completed By: **Ashley Gallegos** **5/4/2017 7:50:19 AM**

Reviewed By: ENM 05/04/17

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Custody seals intact on sample bottles? | Yes | No | Not Present ✔ |
| 2. Is Chain of Custody complete? | Yes ✔ | No | Not Present |
| 3. How was the sample delivered? | Courier | | |

## Log In

| | | | |
|---|---|---|---|
| 4. Was an attempt made to cool the samples? | Yes ✔ | No | NA |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ✔ | No | NA |
| 6. Sample(s) in proper container(s)? | Yes ✔ | No | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ✔ | No | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ✔ | No | |
| 9. Was preservative added to bottles? | Yes | No ✔ | NA |
| 10. VOA vials have zero headspace? | Yes | No | No VOA Vials ✔ |
| 11. Were any sample containers received broken? | Yes | No ✔ | |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ✔ | No | # of preserved bottles checked for pH: (<2 or >12 unless noted) |
| 13. Are matrices correctly identified on Chain of Custody? | Yes ✔ | No | Adjusted? |
| 14. Is it clear what analyses were requested? | Yes ✔ | No | |
| 15. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ✔ | No | Checked by: |

## Special Handling (if applicable)

16. 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:

17. Additional remarks:

18. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.6 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 604 W Pinon St.
Farmington, NM 87401

Phone #: 505-564-2281

Email or Fax#: eskyles@animasenvironmental.com

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard X Rush SAME DAY

Project Name:
COPC SAN JUAN 28-7 UNIT 85

Project #:

Project Manager:
C. Lameman/ E. McNally

Sampler: CL
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.1+0.5(CF) = 1.6


**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 Request ID | Container Type and # | Preservative Type | HEAL No. 1705220 | BTEX - 8021B | TPH (GRO/DRO/MRO) - 8015 | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|
| 5/3/17 | 8:53 | SOIL | SC-3 | 1 - MeOH kit 1 - 4 oz. | MeOH cool | -001 | X | X | |
| 5/3/17 | 9:07 | SOIL | SC-5 | 1 - MeOH kit 1 - 4 oz. | MeOH cool | 002 | X | X | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 5/3/17 | 1519 | | | 5/3/17 | 1519 |
| Date: | Time: | Relinquished by: | Received by: | Date | Time |
| 5/3/17 | 1858 | | 05/04/170700 | | |

Remarks: Bill to Conoco Phillips
WO # 10398827
Supervisor: Randy Smith
USERID: KAITLW
Area: 7
Ordered by: Lisa Hunter/Eduardo Montoya

Call w/ Questions.

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*

May 10, 2017

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

RE: COPC San Juan 28-7 Unit 85 OrderNo.: 1705221

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/4/2017 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **1705221**
Date Reported: **5/10/2017**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Project:** COPC San Juan 28-7 Unit 85
**Lab ID:** 1705221-001
**Matrix:** MEOH (SOIL)
**Client Sample ID:** SC-1
**Collection Date:** 5/3/2017 8:53:00 AM
**Received Date:** 5/4/2017 7:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | 44 | 9.8 | | mg/Kg | 1 | 5/9/2017 12:12:10 PM | 31596 |
| Motor Oil Range Organics (MRO) | 67 | 49 | | mg/Kg | 1 | 5/9/2017 12:12:10 PM | 31596 |
| Surr: DNOP | 87.5 | 70-130 | | %Rec | 1 | 5/9/2017 12:12:10 PM | 31596 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 2.9 | | mg/Kg | 1 | 5/4/2017 2:31:16 PM | G42544 |
| Surr: BFB | 99.6 | 54-150 | | %Rec | 1 | 5/4/2017 2:31:16 PM | G42544 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.014 | | mg/Kg | 1 | 5/4/2017 2:31:16 PM | B42544 |
| Toluene | ND | 0.029 | | mg/Kg | 1 | 5/4/2017 2:31:16 PM | B42544 |
| Ethylbenzene | ND | 0.029 | | mg/Kg | 1 | 5/4/2017 2:31:16 PM | B42544 |
| Xylenes, Total | ND | 0.058 | | mg/Kg | 1 | 5/4/2017 2:31:16 PM | B42544 |
| Surr: 4-Bromofluorobenzene | 116 | 66.6-132 | | %Rec | 1 | 5/4/2017 2:31:16 PM | B42544 |

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-2
**Project:** COPC San Juan 28-7 Unit 85
**Collection Date:** 5/3/2017 9:07:00 AM
**Lab ID:** 1705221-002
**Matrix:** MEOH (SOIL)
**Received Date:** 5/4/2017 7:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | ND | 9.6 | | mg/Kg | 1 | 5/9/2017 11:44:11 AM | 31596 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 5/9/2017 11:44:11 AM | 31596 |
| Surr: DNOP | 87.3 | 70-130 | | %Rec | 1 | 5/9/2017 11:44:11 AM | 31596 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.0 | | mg/Kg | 1 | 5/4/2017 4:07:07 PM | G42544 |
| Surr: BFB | 94.5 | 54-150 | | %Rec | 1 | 5/4/2017 4:07:07 PM | G42544 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.015 | | mg/Kg | 1 | 5/4/2017 4:07:07 PM | B42544 |
| Toluene | ND | 0.030 | | mg/Kg | 1 | 5/4/2017 4:07:07 PM | B42544 |
| Ethylbenzene | ND | 0.030 | | mg/Kg | 1 | 5/4/2017 4:07:07 PM | B42544 |
| Xylenes, Total | ND | 0.059 | | mg/Kg | 1 | 5/4/2017 4:07:07 PM | B42544 |
| Surr: 4-Bromofluorobenzene | 109 | 66.6-132 | | %Rec | 1 | 5/4/2017 4:07:07 PM | B42544 |

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-4
**Project:** COPC San Juan 28-7 Unit 85
**Collection Date:** 5/3/2017 9:02:00 AM
**Lab ID:** 1705221-003
**Matrix:** MEOH (SOIL)
**Received Date:** 5/4/2017 7:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **TOM** | |
| Diesel Range Organics (DRO) | 34 | 9.4 | | mg/Kg | 1 | 5/9/2017 12:40:00 PM | 31596 |
| Motor Oil Range Organics (MRO) | 69 | 47 | | mg/Kg | 1 | 5/9/2017 12:40:00 PM | 31596 |
| Surr: DNOP | 90.6 | 70-130 | | %Rec | 1 | 5/9/2017 12:40:00 PM | 31596 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 3.3 | | mg/Kg | 1 | 5/4/2017 4:31:05 PM | G42544 |
| Surr: BFB | 96.6 | 54-150 | | %Rec | 1 | 5/4/2017 4:31:05 PM | G42544 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.017 | | mg/Kg | 1 | 5/4/2017 4:31:05 PM | B42544 |
| Toluene | ND | 0.033 | | mg/Kg | 1 | 5/4/2017 4:31:05 PM | B42544 |
| Ethylbenzene | ND | 0.033 | | mg/Kg | 1 | 5/4/2017 4:31:05 PM | B42544 |
| Xylenes, Total | ND | 0.067 | | mg/Kg | 1 | 5/4/2017 4:31:05 PM | B42544 |
| Surr: 4-Bromofluorobenzene | 112 | 66.6-132 | | %Rec | 1 | 5/4/2017 4:31:05 PM | B42544 |

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#: **1705221**

*10-May-17*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 Unit 85

| Sample ID **MB-31596** | SampType: **MBLK** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **31596** | | | RunNo: **42598** | | | | | |
| Prep Date: **5/5/2017** | Analysis Date: **5/8/2017** | | | SeqNo: **1340115** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 10 | | 10.00 | | 103 | 70 | 130 | | | |

| Sample ID **LCS-31596** | SampType: **LCS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **31596** | | | RunNo: **42598** | | | | | |
| Prep Date: **5/5/2017** | Analysis Date: **5/8/2017** | | | SeqNo: **1340286** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 48 | 10 | 50.00 | 0 | 95.0 | 63.8 | 116 | | | |
| Surr: DNOP | 4.9 | | 5.000 | | 97.2 | 70 | 130 | | | |

| Sample ID **1705221-001AMS** | SampType: **MS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **SC-1** | Batch ID: **31596** | | | RunNo: **42630** | | | | | |
| Prep Date: **5/5/2017** | Analysis Date: **5/9/2017** | | | SeqNo: **1341935** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 97 | 9.6 | 48.03 | 44.13 | 109 | 51.6 | 130 | | | |
| Surr: DNOP | 4.6 | | 4.803 | | 96.0 | 70 | 130 | | | |

| Sample ID **1705221-001AMSD** | SampType: **MSD** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **SC-1** | Batch ID: **31596** | | | RunNo: **42630** | | | | | |
| Prep Date: **5/5/2017** | Analysis Date: **5/9/2017** | | | SeqNo: **1341936** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 77 | 9.7 | 48.40 | 44.13 | 66.9 | 51.6 | 130 | 23.2 | 20 | R |
| Surr: DNOP | 4.6 | | 4.840 | | 95.8 | 70 | 130 | 0 | 0 | |

| Sample ID **LCS-31616** | SampType: **LCS** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSS** | Batch ID: **31616** | | | RunNo: **42630** | | | | | |
| Prep Date: **5/8/2017** | Analysis Date: **5/9/2017** | | | SeqNo: **1342303** | | Units: **%Rec** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.6 | | 5.000 | | 91.5 | 70 | 130 | | | |

| Sample ID **MB-31616** | SampType: **MBLK** | | | TestCode: **EPA Method 8015M/D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBS** | Batch ID: **31616** | | | RunNo: **42630** | | | | | |
| Prep Date: **5/8/2017** | Analysis Date: **5/9/2017** | | | SeqNo: **1342304** | | Units: **%Rec** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

**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#: **1705221**

*10-May-17*

**Client:** Animas Environmental

**Project:** COPC San Juan 28-7 Unit 85

| Sample ID **MB-31616** | SampType: **MBLK** | TestCode: **EPA Method 8015M/D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **31616** | RunNo: **42630** |
| Prep Date: **5/8/2017** | Analysis Date: **5/9/2017** | SeqNo: **1342304** Units: **%Rec** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: DNOP | 8.9 | | 10.00 | | 88.6 | 70 | 130 | | | |

**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#: **1705221**

*10-May-17*

**Client:** Animas Environmental
**Project:** COPC San Juan 28-7 Unit 85

| Sample ID **RB** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **G42544** | RunNo: **42544** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338370** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 1000 | | 1000 | | 104 | 54 | 150 | | | |

| Sample ID **2.5UG GRO LCS** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **G42544** | RunNo: **42544** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338371** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 24 | 5.0 | 25.00 | 0 | 94.3 | 76.4 | 125 | | | |
| Surr: BFB | 1100 | | 1000 | | 111 | 54 | 150 | | | |

**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#: **1705221**

*10-May-17*

**Client:** Animas Environmental
**Project:** COPC San Juan 28-7 Unit 85

| Sample ID **RB** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **B42544** | RunNo: **42544** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338380** 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 | 1.2 | | 1.000 | | 123 | 66.6 | 132 | | | |

| Sample ID **100NG BTEX LCS** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **B42544** | RunNo: **42544** |
| Prep Date: | Analysis Date: **5/4/2017** | SeqNo: **1338381** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.94 | 0.025 | 1.000 | 0 | 93.6 | 80 | 120 | | | |
| Toluene | 0.95 | 0.050 | 1.000 | 0 | 95.3 | 80 | 120 | | | |
| Ethylbenzene | 0.96 | 0.050 | 1.000 | 0 | 96.4 | 80 | 120 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 98.3 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.2 | | 1.000 | | 119 | 66.6 | 132 | | | |

**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

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

# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1705221** RcptNo: **1**

Received By: **Ashley Gallegos** **5/4/2017 7:00:00 AM**

Completed By: **Ashley Gallegos** **5/4/2017 8:05:04 AM**

Reviewed By: ENM 05/04/17

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Custody seals intact on sample bottles? | Yes | No | Not Present ✓ |
| 2. Is Chain of Custody complete? | Yes ✓ | No | Not Present |
| 3. How was the sample delivered? | Courier | | |

## Log In

| | | | |
|---|---|---|---|
| 4. Was an attempt made to cool the samples? | Yes ✓ | No | NA |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ✓ | No | NA |
| 6. Sample(s) in proper container(s)? | Yes ✓ | No | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ✓ | No | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ✓ | No | |
| 9. Was preservative added to bottles? | Yes | No ✓ | NA |
| 10. VOA vials have zero headspace? | Yes | No | No VOA Vials ✓ |
| 11. Were any sample containers received broken? | Yes | No ✓ | |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ✓ | No | # of preserved bottles checked for pH: (<2 or >12 unless noted) |
| 13. Are matrices correctly identified on Chain of Custody? | Yes ✓ | No | Adjusted? |
| 14. Is it clear what analyses were requested? | Yes ✓ | No | |
| 15. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ✓ | No | Checked by: |

## Special Handling (if applicable)

16. 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: | | | |

17. Additional remarks:

18. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.6 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 604 W Pinon St.
Farmington, NM 87401

Phone #: 505-564-2281

Email or Fax#: ~~eskyles~~@animasenvironmental.com

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard X Rush 3-DAY TAT

Project Name:
COPC SAN JUAN 28-7 UNIT 85

Project #:

Project Manager:
C. Lameman/ E. McNally

Sampler: CL
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.1+0.5=1.6


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


| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1705221 | BTEX - 8021B | TPH (GRO/DRO/MRO) - 8015 | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|
| 5/3/17 | 8:53 | SOIL | SC-1 | 1 - MeOH kit 1 - 4 oz. | MeOH cool | -001 | X | X | |
| 5/3/17 | 9:07 | SOIL | SC-2 | 1 - MeOH kit 1 - 4 oz. | MeOH cool | -002 | X | X | |
| 5/3/17 | 9:02 | SOIL | SC-4 | 1 - MeOH kit 1 - 4 oz. | MeOH cool | -003 | X | X | |

| Date | Time | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 5/3/17 | 1519 | | | 5/3/17 | 1519 |
| 5/3/17 | 1858 | | | 05/04/17 | 0700 |

Remarks: Bill to Conoco Phillips
WO # 03188 27
Supervisor: Randy Smith
USERID: KAITLW
Area: 7
Ordered by: Lisa Hunter / Eduardo Montoya

Call w/ questions

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.