

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.

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  
Address: PO BOX 4289, Farmington, NM 87499  
Facility or well name: SCHLOSSER WN FEDERAL 3E - SOUTH TANK  
API Number: 30-045-24120 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr O Section 27 Township 28N Range 11W County: San Juan  
Center of Proposed Design: Latitude 36.62859 °N Longitude -107.98774 °W NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

OIL CONS. DIV DIST. 3

DEC 16 2016

2. ☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
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 \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☒ Other UNSPECIFIED

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 \_\_\_\_\_

65



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.**

- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells

☐ Yes ☐ No  
☒ NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☒ 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**)

- 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**)

- 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**)

- 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**)

- 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).

- 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;

- 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.)

- 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.

- 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.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No



Within 100 feet of a wetland.

- 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).

- 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.

- 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;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet of a wetland.

- 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).

- 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.

- 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.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 500 feet of a wetland.

- 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<sub>2</sub>S, 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   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> 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   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> 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  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> 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                        | <input type="checkbox"/> Yes <input type="checkbox"/> 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  | <input type="checkbox"/> Yes <input type="checkbox"/> 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 | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |



adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- 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.

- 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: Donna [Signature] Approval Date: 12/30/2016

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: 11/23/2016

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



**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) Crystal Walker Title: Regulatory Coordinator

Signature:  Date: 12/15/2016

e-mail address: crystal.walker@cop.com Telephone: (505) 326-9837



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

**Lease Name:** Schlosser WN Federal 3E – South BGT  
**API No.:** 30-045-24120

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 was notified by email of the closure process and the notification is attached.**

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 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 completed 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)**

## Walker, Crystal

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**From:** Walker, Crystal  
**Sent:** Thursday, May 12, 2016 6:56 AM  
**To:** Cory Smith; Fields, Vanessa, EMNRD; Flaniken, Mike (Mike\_Flaniken@blm.gov); Katherina Diemer (kdiemer@blm.gov)  
**Cc:** Farrell, Juanita R; GRP:SJBU Regulatory; Jones, Lisa; SJBU E-Team; Fincher, Shawn S  
**Subject:** BGT Notification: Schlosser WN Federal 3E

The subject well has **two** below-grade tanks that will begin the closure process between 72 hours and one week from this notification. Please contact me at any time if you have any questions or concerns.

Well Name: Schlosser WN Federal 3E

API#: 3004524120

Location: O-27-28N-11W

Footages: 985' FSL & 1530' FEL

BGT 1 Location: 36.628588 / -107.987743

BGT 2 Location: 36.628849 / -107.987627

Operator: ConocoPhillips Company

Surface Owner: Federal

Estimated Date: Wednesday, May 18<sup>th</sup>, 2016

Estimated Time: 9:00AM

Thank you,  
**Crystal Walker**  
Regulatory Coordinator  
ConocoPhillips Lower 48

T: 505-326-9837 | M: 505-215-4361 | [crystal.walker@cop.com](mailto:crystal.walker@cop.com)

Visit the new Lower 48 website:  
[www.conocophillipsuslower48.com](http://www.conocophillipsuslower48.com)



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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

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

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 <b>ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>	
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 258-1607</b>	
Facility Name: <b>Schlosser WN Federal 3E</b>	Facility Type: <b>Gas Well</b>	
Surface Owner <b>Federal</b>	Mineral Owner <b>Federal (SF-078673)</b>	API No. <b>3004524120</b>

**LOCATION OF RELEASE**

Unit Letter <b>O</b>	Section <b>27</b>	Township <b>28N</b>	Range <b>11W</b>	Feet from the <b>985</b>	North/South Line <b>South</b>	Feet from the <b>1530</b>	East/West Line <b>East</b>	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	-----------------------------	----------------------------------	------------------------------	-------------------------------	---------------------------

Latitude 36.62859 Longitude -107.98774

**NATURE OF RELEASE**

Type of Release <b>Historic BGT Release</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>Below Grade Tank (BGT) – South Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>May 17, 2016</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour <b>N/A</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Below-Grade Tank Closure activities with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Historic hydrocarbon impacted soil was found during the BGT closure for the subject well which exceeded NMOCD Action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 10. The excavation was 40' x 77' x 13' in depth. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.</b>		
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.		

**OIL CONSERVATION DIVISION**

Signature: 	Approved by Environmental Specialist:	
Printed Name: <b>Lisa Hunter</b>		
Title: <b>Field Environmental Specialist</b>	Approval Date:	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	
Date: <b>December 8, 2016</b> Phone: <b>(505) 258-1607</b>	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary



December 2, 2016

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
(505) 326-9786

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: South Below Grade Tank Closure, Release Assessment  
and Final Excavation Report  
Schlosser WN Federal 3E  
San Juan County, New Mexico**

Dear Ms. Hunter:

On May 19, June 7, November 18, and November 23, 2016, 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 (COPC) Schlosser WN Federal 3E located in San Juan County, New Mexico. An initial release assessment was completed on June 7, 2016, and the final excavation was completed by COPC contractors prior to AES's arrival on location on November 23, 2016.

---

## **1.0 Site Information**

### **1.1 Location**

Site Name – Schlosser WN Federal 3E

Legal Description – SW¼ SE¼, Section 27, T28N, R11W, San Juan County, New Mexico

Well Latitude/Longitude – N36.62870 and W107.98748, respectively

BGT Latitude/Longitude – N36.62859 and W107.98774, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, May 2016

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

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



## **1.2 Depth to Groundwater Determination (NMAC 19.15.17.13 Table 1)**

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) and New Mexico Office of the State Engineer (NMOSE) databases were reviewed, and depth to groundwater information could not be located. Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be 50 to 100 feet below ground surface (bgs).

However, in accordance with the BGT closure plan application (Form C-144) filed May 11, 2016, 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 Lisa Hunter, COPC representative, on May 17, 2016, and on May 19, 2016, Corwin Lameman of AES traveled to the location. Soil sampling consisted of collection of one 5-point soil sample (S BGT SC-2) composited from four perimeter locations and one center location from below the BGT liner at the south BGT footprint. Note that N BGT SC-1 was collected from the north BGT and was addressed in a North BGT closure report dated November 10, 2016. Soil sample results for S BGT SC-2 were above the action levels, and a release was confirmed.

On June 7, 2016, AES personnel returned to the location to complete the release assessment field work. The assessment included collection and field sampling of 22 soil samples from 12 soil borings (SB-1 through SB-12). Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On November 18 and 23, 2016, AES returned to the location to collect confirmation soil samples of the excavation extents. The field sampling activities included collection of eight confirmation soil samples (SC-1 through SC-8) from the walls and base of the excavation. The area of the final excavation measured approximately 40 feet by 77 feet by 13 feet in depth. Note that the depth of the excavation was limited due to a confining sandstone unit around 13 feet bgs. Sample locations and final excavation extents are presented on Figure 4.

---

## **2.0 Soil Sampling**

A total of 22 soil samples (SB-1 through SB-12) and 8 composite samples (SC-1 and SC-1 through SC-8) were collected during the assessment and excavation clearance. All but one soil sample were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbon (TPH). All composite

samples collected during the excavation clearance were submitted for confirmation laboratory analysis.

## **2.1 Field Sampling**

### **2.1.1 Volatile Organic Compounds**

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

### **2.1.2 Total Petroleum Hydrocarbons**

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

### **2.1.3 Chlorides**

Soil sample S BGT SC-2 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 S BGT SC-2 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH per USEPA Method 418.1; and
- Chlorides per USEPA Method 300.0.

Soil samples SC-1 through SC-8 were laboratory analyzed for:

- BTEX per USEPA Method 8021B;
- 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.



### 2.3 Field and Laboratory Analytical Results

On May 19, 2016, BGT closure field screening results for VOCs via OVM were measured at 3,989 ppm in BGT SC-1. Field TPH concentrations were reported at 9,600 mg/kg. The field chloride concentration was 40 mg/kg.

On June 7, 2016, initial assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in SB-4 and SB-8 through SB-12 up to 4,270 ppm in SB-1. Field TPH concentrations ranged from less than 20.0 mg/kg in SB-5, SB-8, SB-9 and SB-10, up to 17,700 mg/kg in SB-7.

Final excavation field screening results for VOCs via OVM ranged from 1.0 ppm in SC-7 up to 730 ppm in SC-4. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-2 through SC-4 and SC-6 through SC-8, up to 94.6 mg/kg in SC-5. Field screening VOC and TPH results are summarized in Table 1 and on Figures 2 through 4. The AES Field Sampling Reports are attached.

Table 1. Soil Field VOCs, TPH, and Chloride Results  
Schlosser WN Federal 3E South BGT Closure, Release Assessment and Final Excavation  
May through November 2016

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (418.1) (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action Level			--*	100*	600*
S BGT SC-2	5/19/16	0.5	3,989	9,600	40
SB-1	6/7/16	5	4,270	6,120	NA
		8	3,054	2,410	NA
		9	NA	NA	NA
SB-2	6/7/16	3	3,462	7,420	NA
		5	2,780	7,130	NA
SB-3	6/7/16	2	1.3	24.4	NA
SB-4	6/7/16	3	0.9	NA	NA
		4	0.0	27.7	NA
SB-5	6/7/16	4	3,164	6,740	NA
		5	57.1	<20.0	NA
SB-6	6/7/16	3.5	3,389	14,200	NA
		5.5	2,262	2,000	NA

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (418.1) (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action Level			--*	100*	600*
SB-7	6/7/16	4	1,496	8,820	NA
		5	3,015	17,700	NA
SB-8	6/7/16	4	1.1	NA	NA
		5	0.0	<20.0	NA
SB-9	6/7/16	4	0.0	NA	NA
		7	0.0	<20.0	NA
SB-10	6/7/16	4	0.0	NA	NA
		8	0.0	<20.0	NA
SB-11	6/7/16	4.5	0.0	29.3	NA
SB-12	6/7/16	4	0.0	26.1	NA
SC-1	11/18/16	0 to 13	117	55.2	NA
SC-2	11/23/16	0 to 13	4.5	<20.0	NA
SC-3	11/18/16	0 to 13	3.2	<20.0	NA
SC-4	11/18/16	0 to 13	730	<20.0	NA
SC-5	11/23/16	13	210	94.6	NA
SC-6	11/18/16	0 to 13	6.8	<20.0	NA
SC-7	11/23/16	0 to 13	1.0	<20.0	NA
SC-8	11/23/16	13	21.8	<20.0	NA

NA – not analyzed

\*Action level determined by NMAC 19.15.17.13 Table 1.

Laboratory analysis of sample S BGT SC-2 was used to confirm the concentrations for BGT closure sampling results. Benzene concentrations were reported below the laboratory detection limit; however, total BTEX was measured at 90.5 mg/kg, and TPH was reported at 9,500 mg/kg. The chloride concentration was reported as less than 30 mg/kg.

Laboratory analyses for SC-1 through SC-8 were used to confirm field sampling results from the final excavation extents. Benzene concentrations were reported below laboratory detection limits in all samples. Total BTEX concentrations were below laboratory detection limits in all samples except SC-5 (0.20 mg/kg). Total TPH



concentrations were below laboratory detection limits in all samples except SC-1 (15 mg/kg), SC-2 (16 mg/kg) and SC-5 (68 mg/kg). Results are summarized in Table 2 and included on Figures 2 through 4. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
Schlosser WN Federal 3E South BGT Closure, Release Assessment and Final Excavation  
May through November 2016

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH 418.1 (mg/kg)	TPH-GRO 8015 (mg/kg)	TPH-DRO 8015 (mg/kg)	TPH-MRO 8015 (mg/kg)	Chlorides (mg/kg)
		NMOCD Action Level	10*	50*	100*		100*		600*
S BGT SC-2	5/19/16	0.5	<0.73	90.5	9,500	NA	NA	NA	<30
SC-1	11/18/16	0 to 13	<0.033	<0.166	NA	<3.3	15	<48	39
SC-2	11/23/16	0 to 13	<0.015	<0.138	NA	<3.1	16	<50	33
SC-3	11/18/16	0 to 13	<0.019	<0.175	NA	<3.9	<9.7	<48	<30
SC-4	11/18/16	0 to 13	<0.016	<0.141	NA	<3.1	<9.7	<49	<30
SC-5	11/23/16	13	<0.016	0.20	NA	4.0	64	<50	39
SC-6	11/18/16	0 to 13	<0.018	<0.159	NA	<3.5	<9.6	<48	<30
SC-7	11/23/16	0 to 13	<0.016	<0.143	NA	<3.2	<10	<50	<30
SC-8	11/23/16	13	<0.016	<0.148	NA	<3.3	<9.7	<49	<30

NA – not analyzed

\*Action level determined by NMAC 19.15.17.13 Table 1.

### 3.0 Conclusions and Recommendations

#### 3.1 BGT Closure

On May 19, 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 results were above the NMOCD action levels of 50 mg/kg for total BTEX and 100 mg/kg for TPH, with S BGT SC-2 reporting field concentrations of 9,600 mg/kg TPH (418.1) and laboratory analytical results of 90.5 mg/kg total BTEX and 9,500 mg/kg TPH (418.1), respectively. Chloride concentrations in S BGT SC-2 were reported below the NMOCD action level of 600 mg/kg, with 30 mg/kg. Based on field concentrations, a release was confirmed at the South BGT at the Schlosser WN Federal 3E location.

### 3.2 Release Assessment

On June 7, 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, SB-2, SB-5, SB-6, and SB-7. The highest field TPH concentration was reported in SB-7, with a concentration of 17,700 mg/kg TPH. Excavation of the release area was recommended.

On November 23, 2016, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for all samples. Additionally, laboratory analytical results also reported benzene, total BTEX, and TPH concentrations (as GRO/DRO/MRO) 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 Schlosser WN Federal 3E, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final sidewalls and base of the excavation. No further work is recommended.

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

Sincerely,



David J. Reese  
Environmental Scientist



Elizabeth McNally, P.E.

#### Attachments:

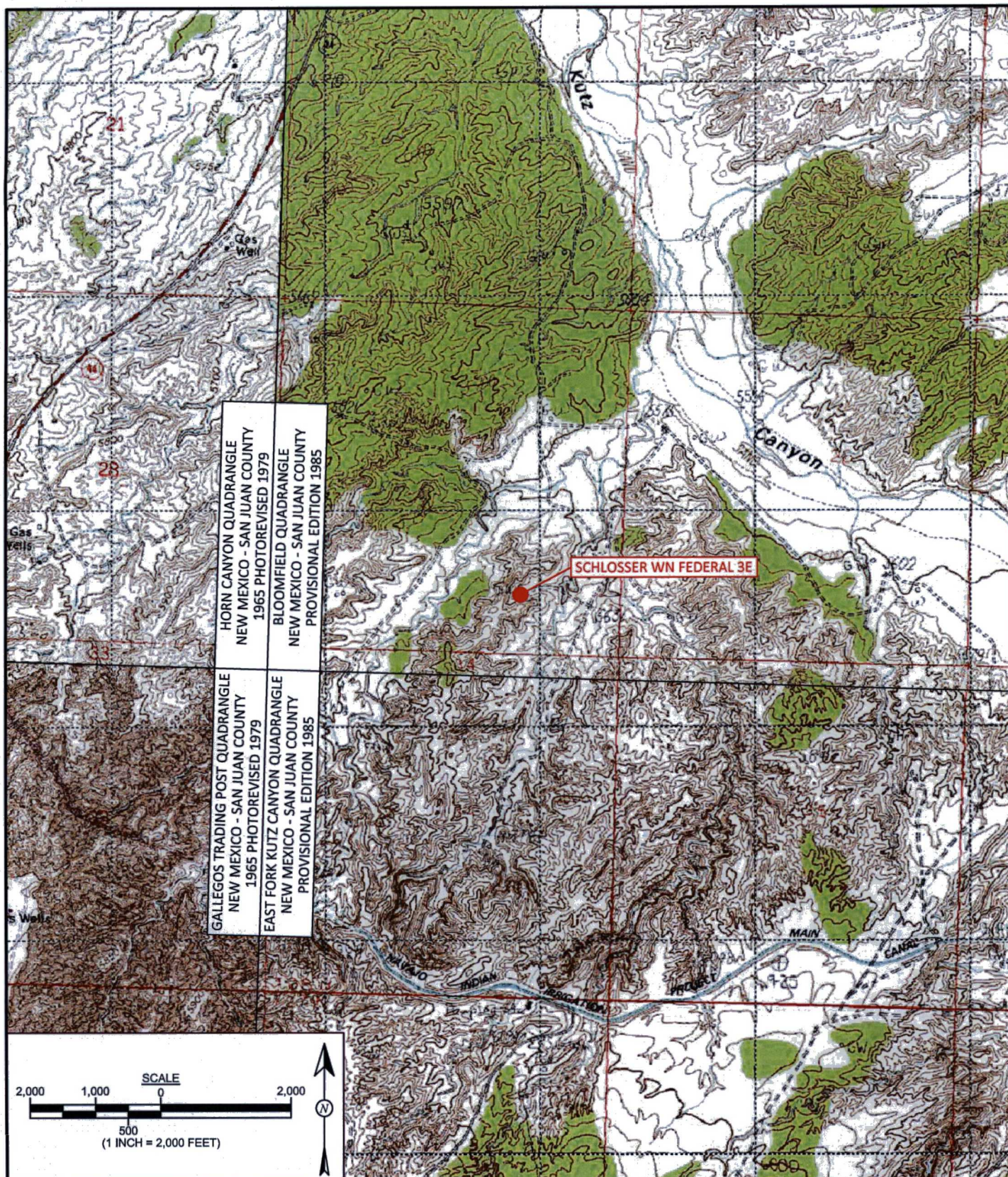
- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, May 2016
- Figure 3. Release Assessment Sample Locations and Results, June 2016
- Figure 4. Final Excavation Sample Locations and Results, November 2016
- AES Field Sampling Report 051916
- AES Field Sampling Report 060716
- AES Field Sampling Report 111816 112316



Hall Laboratory Analytical Report 1605987  
Hall Laboratory Analytical Report 1611A76  
Hall Laboratory Analytical Report 1611B60  
Hall Laboratory Analytical Report 1611C75

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Dropbox\2016 Client Projects\ConocoPhillips\Schlosser WN Federal 3E\Schlosser WN Federal 3E South  
BGT Closure Assessment and Excavation Report 120216.docx





**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 SCHLOSSER WN FEDERAL 3E  
 SW¼ SE¼, SECTION 27, T28N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.62870, W107.98748



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<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> May 19, 2016
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> December 2, 2016
<b>CHECKED BY:</b> D. Reese	<b>DATE CHECKED:</b> December 2, 2016
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 2, 2016



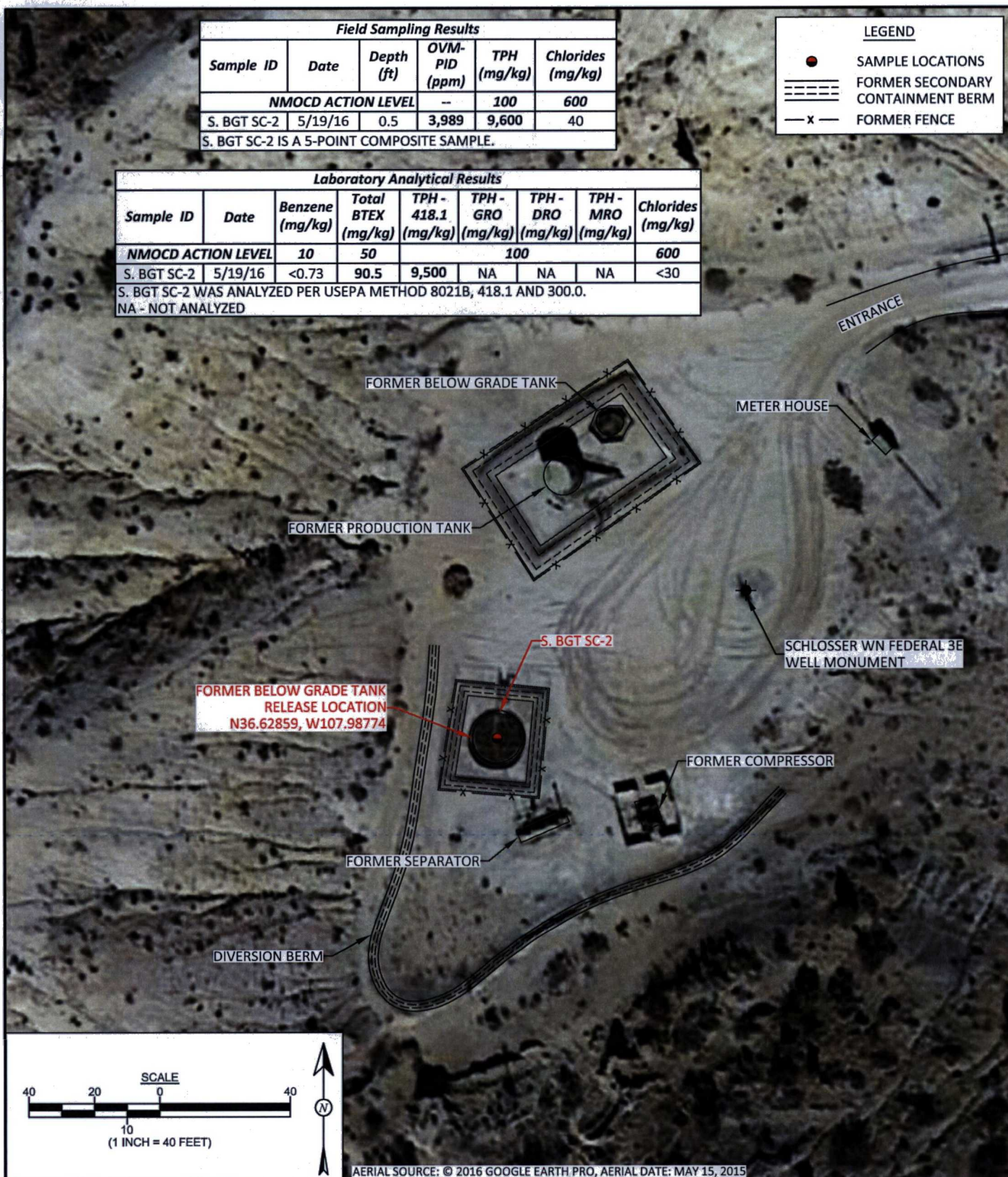
Field Sampling Results					
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			—	100	600
S. BGT SC-2	5/19/16	0.5	3,989	9,600	40

S. BGT SC-2 IS A 5-POINT COMPOSITE SAMPLE.

LEGEND	
	SAMPLE LOCATIONS
	FORMER SECONDARY CONTAINMENT BERM
	FORMER FENCE

Laboratory Analytical Results								
Sample ID	Date	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				600
S. BGT SC-2	5/19/16	<0.73	90.5	9,500	NA	NA	NA	<30

S. BGT SC-2 WAS ANALYZED PER USEPA METHOD 8021B, 418.1 AND 300.0.  
NA - NOT ANALYZED



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<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> May 19, 2016
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> December 2, 2016
<b>CHECKED BY:</b> D. Reese	<b>DATE CHECKED:</b> December 2, 2016
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 2, 2016

## FIGURE 2

**AERIAL SITE MAP  
BELOW GRADE TANK CLOSURE  
MAY 2016**  
ConocoPhillips  
SCHLOSSER WN FEDERAL 3E  
SW¼ SE¼, SECTION 27, T28N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.62870, W107.98748



# FIGURE 3

**RELEASE ASSESSMENT SAMPLE  
LOCATIONS AND RESULTS  
JUNE 2016**  
ConocoPhillips  
SCHLOSSER WN FEDERAL 3E  
SW¼ SE¼, SECTION 27, T28N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.62870, W107.98748



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<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> June 8, 2016
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> December 2, 2016
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> December 2, 2016
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 2, 2016

## LEGEND

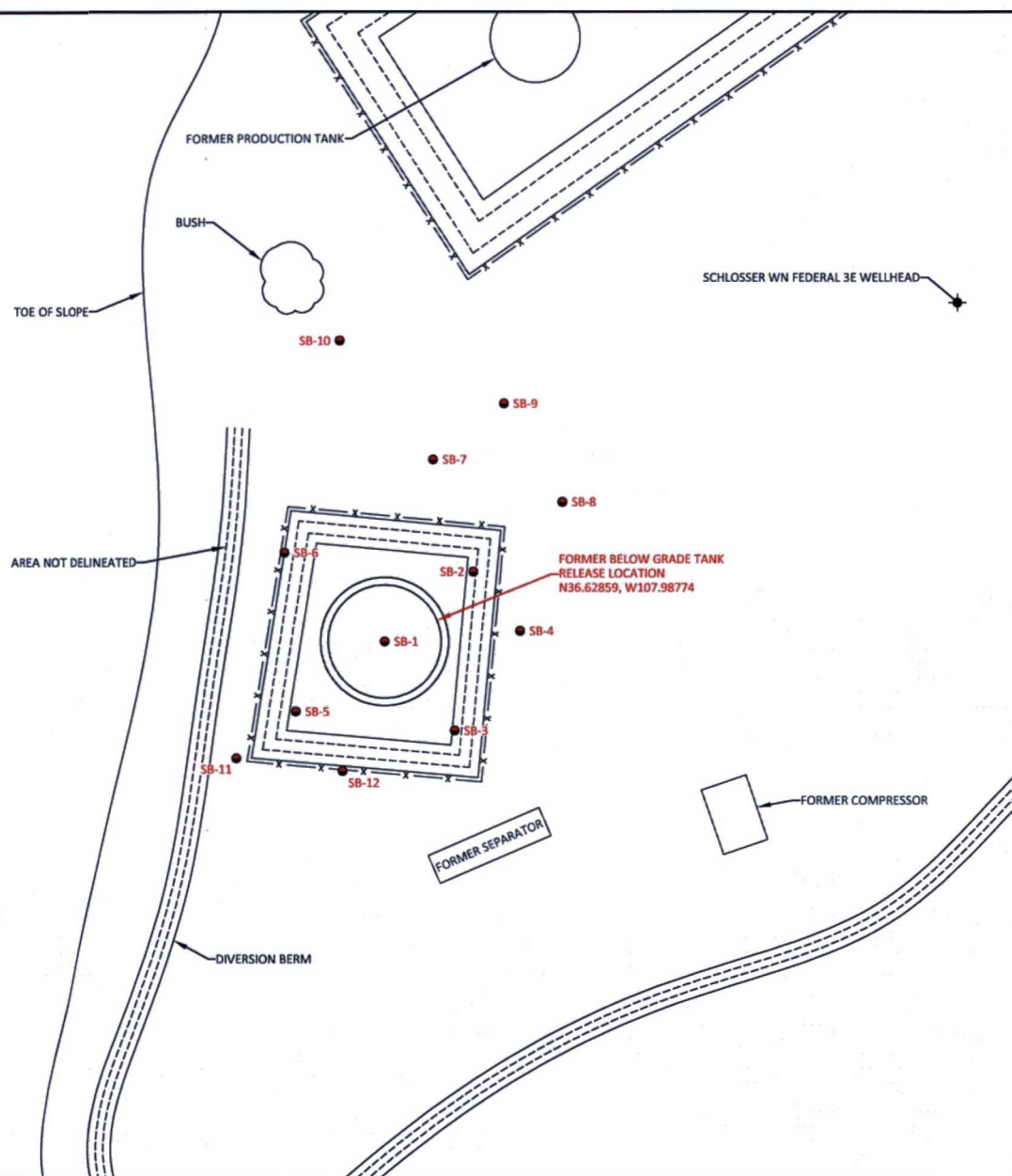
- SOIL BORING LOCATIONS
- ===== FORMER SECONDARY CONTAINMENT BERM
- x- FORMER FENCE

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			--	100
SB-1	6/7/16	5	4,270	6,120
		8	3,054	2,410
		9	NA	NA
SB-2	6/7/16	3	3,462	7,420
		5	2,780	7,130
SB-3	6/7/16	2	1.3	24.4
SB-4	6/7/16	3	0.9	NA
		4	0.0	27.7
SB-5	6/7/16	4	3,164	6,740
		5	57.1	<20.0
SB-6	6/7/16	3.5	3,389	14,200
		5.5	2,262	2,000
SB-7	6/7/16	4	1,496	8,820
		5	3,015	17,700
SB-8	6/7/16	4	1.1	NA
		5	0.0	<20.0
SB-9	6/7/16	4	0.0	NA
		7	0.0	<20.0
SB-10	6/7/16	4	0.0	NA
		8	0.0	<20.0
SB-11	6/7/16	4.5	0.0	29.3
SB-12	6/7/16	4	0.0	26.1

SAMPLES WERE ANALYZED PER USEPA METHOD 418.1.  
NA - NOT ANALYZED

## LIMITATIONS

1. AREA NOT DELINEATED DUE TO POTENTIAL SOIL CONTAMINATION CONTINUING OFF OF THE LOCATION.





# FIGURE 4

## FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS NOVEMBER 2016

ConocoPhillips  
SCHLOSSER WN FEDERAL 3E  
SW¼ SE¼, SECTION 27, T28N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.62870, W107.98748



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DRAWN BY:  
C. Lameman

DATE DRAWN:  
November 28, 2016

REVISIONS BY:  
C. Lameman

DATE REVISED:  
December 2, 2016

CHECKED BY:  
E. McNally

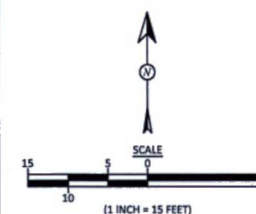
DATE CHECKED:  
December 2, 2016

APPROVED BY:  
E. McNally

DATE APPROVED:  
December 2, 2016

### LEGEND

- SAMPLE LOCATIONS
- FORMER SECONDARY CONTAINMENT BERM
- x- FORMER FENCE

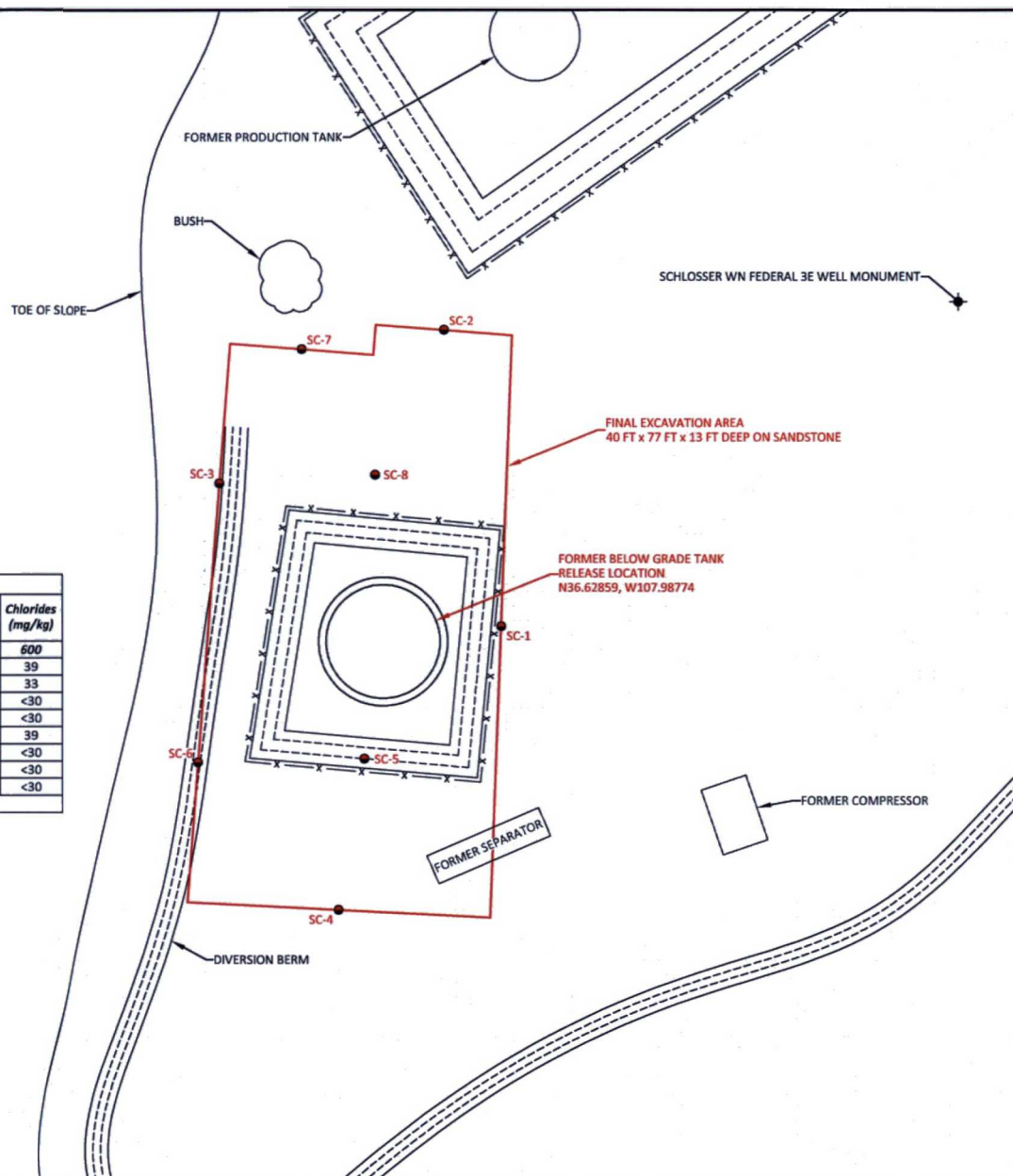


Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			—	100
SC-1	11/18/16	0 to 13	117	55.2
SC-2	11/23/16	0 to 13	4.5	<20.0
SC-3	11/18/16	0 to 13	3.2	<20.0
SC-4	11/18/16	0 to 13	730	<20.0
SC-5	11/23/16	13	210	94.6
SC-6	11/18/16	0 to 13	6.8	<20.0
SC-7	11/23/16	0 to 13	1.0	<20.0
SC-8	11/23/16	13	21.8	<20.0

ALL SAMPLES WERE COMPOSITE SAMPLES. ALL SAMPLES WERE ANALYZED PER USEPA METHOD 418.1.

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)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			10	50	100			600
SC-1	11/18/16	0 to 13	<0.033	<0.166	<3.3	15	<48	39
SC-2	11/23/16	0 to 13	<0.015	<0.138	<3.1	16	<50	33
SC-3	11/18/16	0 to 13	<0.019	<0.175	<3.9	<9.7	<48	<30
SC-4	11/18/16	0 to 13	<0.016	<0.141	<3.1	<9.7	<49	<30
SC-5	11/23/16	13	<0.016	0.20	4.0	64	<50	39
SC-6	11/18/16	0 to 13	<0.018	<0.159	<3.5	<9.6	<48	<30
SC-7	11/23/16	0 to 13	<0.016	<0.143	<3.2	<10	<50	<30
SC-8	11/23/16	13	<0.016	<0.148	<3.3	<9.7	<49	<30

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B, 8015D, AND 300.0.



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Schlosser WN Federal 3E

Date: 5/19/2016

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S BGT SC-2	5/19/2016	9:32	Composite	3,989	40	9,602	10:00	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Field Chloride - Quantab Chloride Titrators or Drop Count

Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Schlosser WN Federal 3E

Date: 6/7/2016

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 5'	6/7/2016	9:36	4,270	6,117	10:19	200	10	CL
SB-1 @ 8'	6/7/2016	9:47	3,054	2,413	10:24	20.0	1	CL
SB-1 @ 9'	6/7/2016	10:04	NA	Not Analyzed for TPH				
SB-2 @ 3'	6/7/2016	10:28	3,462	7422	11:05	200	10	CL
SB-2 @ 5'	6/7/2016	10:47	2,780	7,128	11:19	200	10	CL
SB-3 @ 2'	6/7/2016	11:06	1.3	24.4	11:25	20.0	1	CL
SB-4 @ 3'	6/7/2016	11:43	0.9	Not Analyzed for TPH				
SB-4 @ 4'	6/7/2016	11:47	0.0	27.7	12:55	20.0	1	CL
SB-5 @ 4'	6/7/2016	12:24	3,164	6,737	13:24	200	10	CL
SB-5 @ 5'	6/7/2016	12:26	57.1	14.6	12:41	20.0	1	CL
SB-6 @ 3.5'	6/7/2016	12:43	3,389	14,159	13:32	200	10	CL
SB-6 @ 5.5'	6/7/2016	12:53	2,262	1,997	13:37	20.0	1	CL
SB-7 @ 4'	6/7/2016	13:46	1,496	8,825	14:12	200	10	CL
SB-7 @ 5'	6/7/2016	13:53	3,015	17,683	14:53	200	10	CL

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-8 @ 4'	6/7/2016	14:50	1.1	Not Analyzed for TPH				
SB-8 @ 5'	6/7/2016	14:58	0.0	<20.0	15:13	20.0	1	CL
SB-9 @ 4'	6/7/2016	15:11	0.0	Not Analyzed for TPH				
SB-9 @ 7'	6/7/2016	15:22	0.0	<20.0	15:37	20.0	1	CL
SB-10 @ 4'	6/7/2016	15:37	0.0	Not Analyzed for TPH				
SB-10 @ 8'	6/7/2016	15:51	0.0	<20.0	16:22	20.0	1	CL
SB-11 @ 4.5'	6/7/2016	16:11	0.0	29.3	16:55	20.0	1	CL
SB-12 @ 4'	6/7/2016	16:24	0.0	26.1	16:51	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:





# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Schlosser WN Federal 3E

Date: 11/18/16 & 11/23/16

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	11/18/2016	9:25	East Wall	117	55.2	10:34	20.0	1	CL
SC-3	11/18/2016	13:10	West Wall N	3.2	<20.0	13:36	20.0	1	CL
SC-4	11/18/2016	16:00	South Wall	730	<20.0	16:16	20.0	1	CL
SC-6	11/18/2016	13:18	West Wall S	6.8	<20.0	13:39	20.0	1	CL
SC-2	11/23/2016	12:32	North Wall E	4.5	<20.0	12:49	20.0	1	CL
SC-5	11/23/2016	15:55	South Base	210	94.6	16:09	20.0	1	CL
SC-7	11/23/2016	11:06	North Wall W	1.0	<20.0	11:31	20.0	1	CL
SC-8	11/23/2016	14:36	North Base	21.8	<20.0	14:53	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 26, 2016

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

RE: COPC SCHLOSSER WN FEDERAL 3E

OrderNo.: 1605987

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/20/2016 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](http://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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1605987

Date Reported: 5/26/2016

CLIENT: Animas Environmental

Client Sample ID: S. BGT SC-2

Project: COPC SCHLOSSER WN FEDERAL 3E

Collection Date: 5/19/2016 9:32:00 AM

Lab ID: 1605987-001

Matrix: MEOH (SOIL)

Received Date: 5/20/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: TOM
Petroleum Hydrocarbons, TR	9500	190		mg/Kg	10	5/24/2016	25438
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/25/2016 8:38:31 PM	25511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.73		mg/Kg	50	5/23/2016 11:35:52 PM	25418
Toluene	ND	1.5		mg/Kg	50	5/23/2016 11:35:52 PM	25418
Ethylbenzene	6.5	1.5		mg/Kg	50	5/23/2016 11:35:52 PM	25418
Xylenes, Total	84	2.9		mg/Kg	50	5/23/2016 11:35:52 PM	25418
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	50	5/23/2016 11:35:52 PM	25418

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605987

26-May-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-25511	SampType:	mbk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25511	RunNo:	34490					
Prep Date:	5/25/2016	Analysis Date:	5/25/2016	SeqNo:	1063785	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25511	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25511	RunNo:	34490					
Prep Date:	5/25/2016	Analysis Date:	5/25/2016	SeqNo:	1063786	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	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#: 1605987

26-May-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-25438	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	25438	RunNo:	34441					
Prep Date:	5/23/2016	Analysis Date:	5/24/2016	SeqNo:	1061977	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-25438	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	25438	RunNo:	34441					
Prep Date:	5/23/2016	Analysis Date:	5/24/2016	SeqNo:	1061978	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	96	20	100.0	0	95.7	83.4	127			

Sample ID	LCSD-25438	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	25438	RunNo:	34441					
Prep Date:	5/23/2016	Analysis Date:	5/24/2016	SeqNo:	1061979	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	101	83.4	127	5.60	20	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605987

26-May-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-25418		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 25418		RunNo: 34421					
Prep Date:	5/20/2016		Analysis Date: 5/23/2016		SeqNo: 1061391		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	1.1		1.000		111	80	120			

Sample ID	LCS-25418		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 25418		RunNo: 34421					
Prep Date:	5/20/2016		Analysis Date: 5/23/2016		SeqNo: 1061392		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.7	75.3	123			
Toluene	0.97	0.050	1.000	0	97.3	80	124			
Ethylbenzene	0.96	0.050	1.000	0	96.0	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	96.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	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  
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: 1605987

ReptNo: 1

Received by/date: JA 05/20/16

Logged By: Lindsay Mangin 5/20/2016 8:00:00 AM

Completed By: Lindsay Mangin 5/20/2016 1:22:35 PM

Reviewed By: IO 05/20/16

*Judy Mayo*  
*Judy Mayo*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
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 ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

<b>Chain-of-Custody Record</b>		Turn-Around Time:
Client: Animas Environmental Services, LLC	<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Mailing Address: 604 W Pinon St. Farmington, NM 87401	Project Name: COPC SCHLOSSER WN FEDERAL 3E	
Phone #: 505-564-2281	Project #:	
Email or Fax#: eskyles@animasenvironmental.com	Project Manager: E. Skyles	
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	Sampler: C. Larneman	
Accreditation: <input type="checkbox"/> NELAP <input type="checkbox"/> Other	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type)	Sample Temperature: 10	

☒ Standard ☐ Rush

COPC SCHLOSSER WN FEDERAL 3E

Project #:

**Project Manager:**

E. Skyles

**Sampler: C. Lameman**

On Ice: ☒ Yes ☐ No

Sample Temperature: 70

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/9/14	1647	Cover	MIWA	5/19/14	1647
Date:	Time:	Relinquished by:	Received by:	Date	Time
1/9/14	2026	Amos W. West	Beast	05/20/16	0800

Remarks: Bill to Conoco Phillips  
WO # 10390486  
Supervisor: Dusty Mars  
USERID: KGARCIA  
Area: 2  
Ordered by: Lisa Hunter



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request





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

November 28, 2016

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

RE: COPC SCHLOSSER WN FEDERAL 3E

OrderNo.: 1611A76

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/19/2016 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](http://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 1611A76

Date Reported: 11/28/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COPC SCHLOSSER WN FEDERAL 3E

Collection Date: 11/18/2016 9:25:00 AM

Lab ID: 1611A76-001

Matrix: SOIL

Received Date: 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	39	30		mg/Kg	20	11/22/2016 8:20:28 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	15	9.7		mg/Kg	1	11/23/2016 10:38:20 AM	28807
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2016 10:38:20 AM	28807
Surr: DNOP	91.7	70-130		%Rec	1	11/23/2016 10:38:20 AM	28807
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	11/22/2016 12:18:51 PM	28762
Surr: BFB	95.9	68.3-144		%Rec	1	11/22/2016 12:18:51 PM	28762
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	11/22/2016 12:18:51 PM	28762
Toluene	ND	0.033		mg/Kg	1	11/22/2016 12:18:51 PM	28762
Ethylbenzene	ND	0.033		mg/Kg	1	11/22/2016 12:18:51 PM	28762
Xylenes, Total	ND	0.067		mg/Kg	1	11/22/2016 12:18:51 PM	28762
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/22/2016 12:18:51 PM	28762

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

<b>Qualifiers:</b>	*	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.

## Analytical Report

Lab Order 1611A76

Date Reported: 11/28/2016

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: COPC SCHLOSSER WN FEDERAL 3E

Collection Date: 11/18/2016 1:10:00 PM

Lab ID: 1611A76-002

Matrix: SOIL

Received Date: 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	ND	30		mg/Kg	20	11/22/2016 8:32:53 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/23/2016 11:01:27 AM	28807
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2016 11:01:27 AM	28807
Surr: DNOP	92.7	70-130		%Rec	1	11/23/2016 11:01:27 AM	28807
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/21/2016 11:35:09 PM	28762
Surr: BFB	89.8	68.3-144		%Rec	1	11/21/2016 11:35:09 PM	28762
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	11/21/2016 11:35:09 PM	28762
Toluene	ND	0.039		mg/Kg	1	11/21/2016 11:35:09 PM	28762
Ethylbenzene	ND	0.039		mg/Kg	1	11/21/2016 11:35:09 PM	28762
Xylenes, Total	ND	0.078		mg/Kg	1	11/21/2016 11:35:09 PM	28762
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/21/2016 11:35:09 PM	28762

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

<b>Qualifiers:</b>	* 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.****Analytical Report**

Lab Order 1611A76

Date Reported: 11/28/2016

**CLIENT:** Animas Environmental**Client Sample ID:** SC-6**Project:** COPC SCHLOSSER WN FEDERAL 3E**Collection Date:** 11/18/2016 1:18:00 PM**Lab ID:** 1611A76-003**Matrix:** SOIL**Received Date:** 11/19/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/22/2016 9:10:07 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/23/2016 11:24:29 AM	28807
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2016 11:24:29 AM	28807
Surr: DNOP	93.3	70-130		%Rec	1	11/23/2016 11:24:29 AM	28807
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/21/2016 11:58:31 PM	28762
Surr: BFB	87.4	68.3-144		%Rec	1	11/21/2016 11:58:31 PM	28762
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	11/21/2016 11:58:31 PM	28762
Toluene	ND	0.035		mg/Kg	1	11/21/2016 11:58:31 PM	28762
Ethylbenzene	ND	0.035		mg/Kg	1	11/21/2016 11:58:31 PM	28762
Xylenes, Total	ND	0.071		mg/Kg	1	11/21/2016 11:58:31 PM	28762
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/21/2016 11:58:31 PM	28762

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

<b>Qualifiers:</b>	<b>*</b> Value exceeds Maximum Contaminant Level.	<b>B</b> Analyte detected in the associated Method Blank
	<b>D</b> Sample Diluted Due to Matrix	<b>E</b> Value above quantitation range
	<b>H</b> Holding times for preparation or analysis exceeded	<b>J</b> Analyte detected below quantitation limits
	<b>ND</b> Not Detected at the Reporting Limit	<b>P</b> Sample pH Not In Range
	<b>R</b> RPD outside accepted recovery limits	<b>RL</b> Reporting Detection Limit
	<b>S</b> % Recovery outside of range due to dilution or matrix	<b>W</b> Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A76

28-Nov-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28796	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	28796	RunNo:	38922					
Prep Date:	11/21/2016	Analysis Date:	11/22/2016	SeqNo:	1216481	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28796	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	28796	RunNo:	38922					
Prep Date:	11/21/2016	Analysis Date:	11/22/2016	SeqNo:	1216482	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A76

28-Nov-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28816		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	28816		RunNo:	38941				
Prep Date:	11/22/2016		Analysis Date:	11/23/2016		SeqNo:	1217613		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	7.4		10.00		73.9	70	130				

Sample ID	LCS-28807		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 28807		RunNo: 38942					
Prep Date:	11/22/2016		Analysis Date: 11/23/2016		SeqNo: 1217667		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.8	62.6	124			
Surr: DNOP	4.4		5.000		88.8	70	130			

Sample ID	MB-28807	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	28807	RunNo:	38942					
Prep Date:	11/22/2016	Analysis Date:	11/23/2016	SeqNo:	1217668	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	9.6		10.00		96.4	70	130			

Sample ID	LCS-28816		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 28816		RunNo: 38942					
Prep Date:	11/22/2016		Analysis Date: 11/23/2016		SeqNo: 1217831		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.4	70	130			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A76

28-Nov-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28762		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	28762		RunNo:	38886				
Prep Date:	11/18/2016		Analysis Date:	11/21/2016		SeqNo:	1215255		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	830		1000		83.5	68.3	144				

Sample ID	LCS-28762		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 28762		RunNo: 38886					
Prep Date:	11/18/2016		Analysis Date: 11/21/2016		SeqNo: 1215256		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	95.7	74.6	123			
Surr: BFB	900		1000		89.6	68.3	144			

Sample ID	MB-28828		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	28828		RunNo:	38913				
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216601		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	860		1000		85.9	68.3	144				

Sample ID	LCS-28828		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 28828		RunNo: 38913					
Prep Date:	11/21/2016		Analysis Date: 11/22/2016		SeqNo: 1216602		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.4	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#: 1611A76

28-Nov-16

Client: Animas Environmental

Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28762		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	28762		RunNo:	38886			
Prep Date:	11/18/2016		Analysis Date:	11/21/2016		SeqNo:	1215295		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		99.8	80	120			

Sample ID	LCS-28762		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	28762		RunNo:	38886			
Prep Date:	11/18/2016		Analysis Date:	11/21/2016		SeqNo:	1215296		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	75.2	115			
Toluene	0.99	0.050	1.000	0	99.0	80.7	112			
Ethylbenzene	0.96	0.050	1.000	0	96.1	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	94.5	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	MB-28828		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	28828		RunNo:	38913			
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216628		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-28828		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	28828		RunNo:	38913			
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216629		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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  
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: 1611A76

RcptNo: 1

Received by/date: LM 11/19/16

Logged By: Anne Thorne 11/19/2016 8:15:00 AM

Completed By: Anne Thorne 11/21/2016

Reviewed By: AS 11/21/16

*Anne Thorne*

*Anne Thorne*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
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 ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes			

<b>Chain-of-Custody Record</b>		Turn-Around Time:
Client: Animas Environmental Services, LLC		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush 3 Day
Mailing Address: 604 W Pinon St.		Project Name: COPC SCHLOSSER WN FEDERAL 3E
Farmington, NM 87401		Project #:
Phone #: 505-564-2281		Project Manager: C. Lameman / E. McNally
Email or Fax#: clameman@animasenvironmental.com		
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation: <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		Sampler: C. Lameman
<input type="checkbox"/> EDD (Type) _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Sample Temperature: 3.2

☐ Standard      ☒ Rush 3 Day

Project Name:

COPC SCHLOSSER WN FEDERAL 3E

Project #:

**Project Manager:**





C. Lameman / E. McNally

**Sampler:** C. Lameman

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.2

[illegible]

Date: 11/18/16	Time: 1855	Relinquished by: 	Received by: 	Date 11/18/16	Time 1855
Date: 11/18/16	Time: 1942	Relinquished by: 	Received by: 	Date 11/19/16	Time 0855

Remarks: Bill to Conoco Phillips  
WO # 10390486  
Supervisor: Dusty Mars  
USERID: KGARCIA  
Area: 2  
Ordered by: Lisa Hunter

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.





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 28, 2016

Corwin Lameman  
Animas Environmental Services  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: COPC SCHLOSSER WN FEDERAL 3E

OrderNo.: 1611B60

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/22/2016 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](http://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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1611B60

Date Reported: 11/28/2016

CLIENT: Animas Environmental Services

Client Sample ID: SC-4

Project: COPC SCHLOSSER WN FEDERAL 3E

Collection Date: 11/18/2016 4:00:00 PM

Lab ID: 1611B60-001

Matrix: SOIL

Received Date: 11/22/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/22/2016 11:58:53 AM	28812
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/22/2016 10:18:44 AM	28806
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/22/2016 10:18:44 AM	28806
Surr: DNOP	84.5	70-130		%Rec	1	11/22/2016 10:18:44 AM	28806
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	11/22/2016 9:47:47 AM	28828
Surr: BFB	89.2	68.3-144		%Rec	1	11/22/2016 9:47:47 AM	28828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	11/22/2016 9:47:47 AM	28828
Toluene	ND	0.031		mg/Kg	1	11/22/2016 9:47:47 AM	28828
Ethylbenzene	ND	0.031		mg/Kg	1	11/22/2016 9:47:47 AM	28828
Xylenes, Total	ND	0.063		mg/Kg	1	11/22/2016 9:47:47 AM	28828
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	11/22/2016 9:47:47 AM	28828

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

<b>Qualifiers:</b>	* 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#: 1611B60

28-Nov-16

Client: Animas Environmental Services  
Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28812	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	28812		RunNo:	38932				
Prep Date:	11/22/2016	Analysis Date:	11/22/2016		SeqNo:	1216811	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28812		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	28812		RunNo:	38932				
Prep Date:	11/22/2016		Analysis Date:	11/22/2016		SeqNo:	1216812		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	90.7	90	110				

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611B60

28-Nov-16

Client: Animas Environmental Services  
Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	1611B60-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-4	Batch ID:	28806	RunNo:	38908					
Prep Date:	11/22/2016	Analysis Date:	11/22/2016	SeqNo:	1216202	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.6	47.98	4.607	76.1	51.6	130			
Surr: DNOP	3.8		4.798		78.8	70	130			

Sample ID	1611B60-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-4	Batch ID:	28806	RunNo:	38908					
Prep Date:	11/22/2016	Analysis Date:	11/22/2016	SeqNo:	1216203	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.9	49.55	4.607	82.8	51.6	130	10.4	20	
Surr: DNOP	4.1		4.955		83.2	70	130	0	0	

Sample ID	LCS-28806	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	28806	RunNo:	38908					
Prep Date:	11/22/2016	Analysis Date:	11/22/2016	SeqNo:	1216204	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.9	62.6	124			
Surr: DNOP	3.8		5.000		75.9	70	130			

Sample ID	MB-28806	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	28806	RunNo:	38908					
Prep Date:	11/22/2016	Analysis Date:	11/22/2016	SeqNo:	1216205	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	7.9		10.00		79.1	70	130			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611B60

28-Nov-16

**Client:** Animas Environmental Services  
**Project:** COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28828		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	28828		RunNo:	38913				
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216601		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		85.9	68.3	144				

Sample ID	LCS-28828		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	28828		RunNo:	38913				
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216602		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	103	74.6	123				
Surr: BFB	910		1000		91.4	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#: 1611B60

28-Nov-16

Client: Animas Environmental Services  
Project: COPC SCHLOSSER WN FEDERAL 3E

Sample ID	MB-28828		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	28828		RunNo:	38913			
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216628		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		102	80	120			

Sample ID	LCS-28828		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	28828		RunNo:	38913			
Prep Date:	11/21/2016		Analysis Date:	11/22/2016		SeqNo:	1216629		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	113	75.2	115			
Toluene	1.0	0.050	1.000	0	103	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.9	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.0	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified





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: 1611B60

RcptNo: 1

Received by/date:

AT 11/22/16

Logged By: Anne Thorne

11/22/2016 7:50:00 AM

*Anne Thorne*

Completed By: Anne Thorne

11/22/2016 7:56:15 AM

*Anne Thorne*

Reviewed By:

aj

11/22/16

### 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 ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
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 ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
(<2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
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	1.0	Good	Yes			

<b>Chain-of-Custody Record</b>		Turn-Around Time:
Client: Animas Environmental Services, LLC		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush: Same Day
Mailing Address: 604 W Pinon St. Farmington, NM 87401		Project Name: COPC SCHLOSSER WN FEDERAL 3E
Phone #: 505-564-2281		Project #:
Email or Fax#: clameman@animasenvironmental.com		Project Manager: C. Lameman
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation: <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		Sampler: C. Lameman
<input type="checkbox"/> EDD (Type) _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Sample Temperature: 10

☐ Standard      ☒ Rush: Same Day

COPC SCHLOSSER WN FEDERAL 3E

Project #:

**Project Manager:**

C. Lameman

**Sampler: C. Lameman**

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/21/16	1730	Corin	Mistie Wachs	1/21/16	1730
Date:	Time:	Relinquished by:	Received by:	Date	Time
1/21/16	1820	Mistie Wachs	Corin	1/22/16	0750

Remarks: Bill to Conoco Phillips  
WO # 10390486  
Supervisor: Dusty Mars  
USERID: KGARCIA  
Area: 2  
Ordered by: Lisa Hunter

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 30, 2016

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

RE: COPC Schlosser WN Federal 3E

OrderNo.: 1611C75

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/26/2016 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](http://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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1611C75

Date Reported: 11/30/2016

**CLIENT:** Animas Environmental**Client Sample ID:** SC-2**Project:** COPC Schlosser WN Federal 3E**Collection Date:** 11/23/2016 12:32:00 PM**Lab ID:** 1611C75-001**Matrix:** MEOH (SOIL)**Received Date:** 11/26/2016 12:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	33	30		mg/Kg	20	11/30/2016 1:19:29 AM	28906
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	11/29/2016 5:26:57 PM	28868
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/29/2016 5:26:57 PM	28868
Surr: DNOP	89.0	70-130		%Rec	1	11/29/2016 5:26:57 PM	28868
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	11/28/2016 11:12:00 AM	28848
Surr: BFB	90.8	68.3-144		%Rec	1	11/28/2016 11:12:00 AM	28848
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	11/28/2016 11:12:00 AM	28848
Toluene	ND	0.031		mg/Kg	1	11/28/2016 11:12:00 AM	28848
Ethylbenzene	ND	0.031		mg/Kg	1	11/28/2016 11:12:00 AM	28848
Xylenes, Total	ND	0.061		mg/Kg	1	11/28/2016 11:12:00 AM	28848
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	11/28/2016 11:12:00 AM	28848

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

<b>Qualifiers:</b>	*	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.

## Analytical Report

Lab Order 1611C75

Date Reported: 11/30/2016

**CLIENT:** Animas Environmental

**Client Sample ID:** SC-5

**Project:** COPC Schlosser WN Federal 3E

**Collection Date:** 11/23/2016 3:55:00 PM

**Lab ID:** 1611C75-002

**Matrix:** MEOH (SOIL)

**Received Date:** 11/26/2016 12:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	39	30		mg/Kg	20	11/30/2016 1:31:53 AM	28906
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	64	9.9		mg/Kg	1	11/29/2016 5:53:58 PM	28868
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/29/2016 5:53:58 PM	28868
Surr: DNOP	101	70-130		%Rec	1	11/29/2016 5:53:58 PM	28868
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.0	3.1		mg/Kg	1	11/28/2016 4:52:40 PM	28848
Surr: BFB	153	68.3-144	S	%Rec	1	11/28/2016 4:52:40 PM	28848
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	11/28/2016 4:52:40 PM	28848
Toluene	ND	0.031		mg/Kg	1	11/28/2016 4:52:40 PM	28848
Ethylbenzene	0.038	0.031		mg/Kg	1	11/28/2016 4:52:40 PM	28848
Xylenes, Total	0.16	0.063		mg/Kg	1	11/28/2016 4:52:40 PM	28848
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/28/2016 4:52:40 PM	28848

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

<b>Qualifiers:</b>	*	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.****Analytical Report**

Lab Order 1611C75

Date Reported: 11/30/2016

**CLIENT:** Animas Environmental**Client Sample ID:** SC-7**Project:** COPC Schlosser WN Federal 3E**Collection Date:** 11/23/2016 11:06:00 AM**Lab ID:** 1611C75-003**Matrix:** MEOH (SOIL)**Received Date:** 11/26/2016 12:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/30/2016 1:44:18 AM	28906
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/29/2016 6:20:40 PM	28868
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/29/2016 6:20:40 PM	28868
Surr: DNOP	92.7	70-130		%Rec	1	11/29/2016 6:20:40 PM	28868
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	11/28/2016 12:00:23 PM	28848
Surr: BFB	102	68.3-144		%Rec	1	11/28/2016 12:00:23 PM	28848
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	11/28/2016 12:00:23 PM	28848
Toluene	ND	0.032		mg/Kg	1	11/28/2016 12:00:23 PM	28848
Ethylbenzene	ND	0.032		mg/Kg	1	11/28/2016 12:00:23 PM	28848
Xylenes, Total	ND	0.063		mg/Kg	1	11/28/2016 12:00:23 PM	28848
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	11/28/2016 12:00:23 PM	28848

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

<b>Qualifiers:</b>	*	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.****Analytical Report**

Lab Order 1611C75

Date Reported: 11/30/2016

**CLIENT:** Animas Environmental**Client Sample ID:** SC-8**Project:** COPC Schlosser WN Federal 3E**Collection Date:** 11/23/2016 2:36:00 PM**Lab ID:** 1611C75-004**Matrix:** MEOH (SOIL)**Received Date:** 11/26/2016 12:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	11/30/2016 1:56:42 AM	28906
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/29/2016 6:46:55 PM	28868
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/29/2016 6:46:55 PM	28868
Surr: DNOP	94.7	70-130		%Rec	1	11/29/2016 6:46:55 PM	28868
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	11/28/2016 12:24:38 PM	28848
Surr: BFB	93.3	68.3-144		%Rec	1	11/28/2016 12:24:38 PM	28848
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	11/28/2016 12:24:38 PM	28848
Toluene	ND	0.033		mg/Kg	1	11/28/2016 12:24:38 PM	28848
Ethylbenzene	ND	0.033		mg/Kg	1	11/28/2016 12:24:38 PM	28848
Xylenes, Total	ND	0.066		mg/Kg	1	11/28/2016 12:24:38 PM	28848
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	11/28/2016 12:24:38 PM	28848

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

<b>Qualifiers:</b>	*	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#: 1611C75

30-Nov-16

Client: Animas Environmental  
Project: COPC Schlosser WN Federal 3E

Sample ID	MB-28906	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	28906	RunNo:	39040					
Prep Date:	11/29/2016	Analysis Date:	11/29/2016	SeqNo:	1221189	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28906	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	28906	RunNo:	39040					
Prep Date:	11/29/2016	Analysis Date:	11/29/2016	SeqNo:	1221190	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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#: 1611C75

30-Nov-16

Client: Animas Environmental

Project: COPC Schlosser WN Federal 3E

Sample ID	LCS-28868		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	28868		RunNo:	39006				
Prep Date:	11/28/2016		Analysis Date:	11/29/2016		SeqNo:	1220403		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	53	10	50.00	0	106	62.6	124				
Surr: DNOP	4.6		5.000		92.1	70	130				

Sample ID	MB-28868		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	28868		RunNo:	39006				
Prep Date:	11/28/2016		Analysis Date:	11/29/2016		SeqNo:	1220404		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	9.1		10.00		91.0	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#: 1611C75

30-Nov-16

Client: Animas Environmental  
Project: COPC Schlosser WN Federal 3E

Sample ID	MB-28848	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	28848	RunNo	38984					
Prep Date	11/23/2016	Analysis Date	11/28/2016	SeqNo	1219303	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	910		1000		91.5	68.3	144			

Sample ID	LCS-28848	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	28848	RunNo	38984					
Prep Date	11/23/2016	Analysis Date	11/28/2016	SeqNo	1219304	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	99.8	74.6	123			
Surr: BFB	990		1000		99.0	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#: 1611C75

30-Nov-16

Client: Animas Environmental

Project: COPC Schlosser WN Federal 3E

Sample ID	MB-28848		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	28848		RunNo:	38984				
Prep Date:	11/23/2016		Analysis Date:	11/28/2016		SeqNo:	1219341		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	0.97		1.000		97.0	80	120				

Sample ID	LCS-28848		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 28848		RunNo: 38984					
Prep Date:	11/23/2016		Analysis Date: 11/28/2016		SeqNo: 1219342		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.9	75.2	115			
Toluene	0.94	0.050	1.000	0	94.3	80.7	112			
Ethylbenzene	0.88	0.050	1.000	0	87.9	78.9	117			
Xylenes, Total	2.6	0.10	3.000	0	88.3	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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: 1611C75

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

11/26/2016 12:20:00 PM

Completed By: Lindsay Mangin

11/28/2016 7:35:52 AM

Reviewed By:

11/28/16

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
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 ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			



[illegible]

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.



