

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 April 3, 2017

**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: Hilcorp Energy Company OGRID #: 372171  
 Address: 382 Road 3100 Aztec, NM 87410  
 Facility or well name: San Juan 28-7 Unit 58A – West Tank  
 API Number: 30-039-23983 OCD Permit Number: \_\_\_\_\_  
 U/L or Qtr/Qtr D Section 29 Township 28N Range 7W County: Rio Arriba  
 Center of Proposed Design: Latitude 36.63792 Longitude -107.60345 NAD83  
 Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

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 \_\_\_\_\_

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.  
**Variations 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.*

<b><u>General siting</u></b>	
<b><u>Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.</u></b> - <input type="checkbox"/> NM Office of the State Engineer - iWATERS database search; <input type="checkbox"/> USGS; <input type="checkbox"/> Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<b><u>Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.</u></b> NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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. <b>(Does not apply to below grade tanks)</b> - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. <b>(Does not apply to below grade tanks)</b> - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. <b>(Does not apply to below grade tanks)</b> - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. <b>(Does not apply to below grade tanks)</b> - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b><u>Below Grade Tanks</u></b>	
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b><u>Temporary Pit using Low Chloride Drilling Fluid</u></b> (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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <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). - 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. - 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. - 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. 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> 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:** CR Whitehead **Approval Date:** January 10, 2022

**Title:** Environmental Specialist **OCD Permit Number:** BGT WEST

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:** 3/1/2013

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 \_\_\_\_\_ Longitude \_\_\_\_\_ NAD:  1927  1983

22.

**Operator Closure Certification:**

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

Name (Print): Kandis Roland Title: Operations/Regulatory Technician – Sr

Signature: Kandis Roland Date: 10/15/2021

e-mail address: kroland@hilcorp.com Telephone: (713) 757-5246

**Hilcorp Energy Company  
San Juan Basin  
Below Grade Tank Closure Report**

**Lease Name: San Juan 28-7 Unit 58A - West Tank**

**API No.: 30-039-23983**

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:

1. HILCORP shall close a below-grade tank within 60 days of cessation of operations per Subsection G.4 of 19.15.17.13 NMAC. This will include a) below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, HILCORP will file the C144 Closure Report as required.

**The below-grade tank referenced above was permitted and closed within 60 days of cessation of the below-grade tanks operation.**

2. HILCORP shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005), JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B) and Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.

**All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B). The liner was cleaned per Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC was disposed of at the San Juan County Regional Landfill located on CR 3100.**

3. HILCORP will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves.

**The below-grade tank was disposed of in a division-approved manner.**

4. If there is any on-site equipment associated with a below-grade tank, then HILCORP shall remove the equipment, unless the equipment is required for some other purpose.

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

5. HILCORP will test the soils beneath the below-grade tank to determine whether a release has occurred. HILCORP shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyzed for the constituents listed in Table I of 19.15.17.13 NMAC. Hilcorp shall notify the division of its results on form C-141.

10/15/2021

**A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b). (Sample results attached). Form C-141 is attached.**

Components	Tests Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.0	250

6. If HILCORP or the division determines that a release has occurred, then HILCORP shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

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

7. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Table I of 19.15.17.13 NMAC, then HILCORP shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.

**The below-grade tank area passed all requirements of Paragraph (4) of Subsection E of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material.**

8. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
- i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.

**Notification is attached.**

9. The surface owner shall be notified of HILCORP's closing of the below-grade tank 72 hours, but not more than one week, prior to closure as per the approved closure plan via certified mail/email, return receipt requested.

**Historic record clean-up. Email communications with OCD are attached.**

10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The below-grade tank area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Re-shaping including drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final recontour has a uniform appearance with smooth surface, fitting the natural landscape.**

11. HILCORP shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will be used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Hilcorp will repeat seeding or planting will be continued until successful vegetative growth occurs.

10/15/2021

**Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.**

12. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material, with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

**The below-grade tank area was backfilled and more than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:

- Soil Backfilling and Cover Installation **(See Report)**
- Re-vegetation application rates and seeding techniques **(See Report)**
- Photo documentation of the site reclamation **(Included as an attachment)**
- Confirmation Sampling Results **(Included as an attachment)**
- Proof of closure notice **(Included as an attachment)**

10/15/2021

**From:** [Whitehead, Christopher , EMNRD](#)  
**To:** [Kandis Roland](#)  
**Cc:** [Mandi Walker](#)  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC  
**Date:** Monday, January 10, 2022 11:49:00 AM

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Kandis,

Thanks for this data; my understanding is that once the report is submitted, you are unable to add attachments or other documentation, so I can include this in the existing submission. Note I will add this correspondence as the justification and purpose for the sample collection which demonstrates that no contamination is evident at this well site from historical operation of the BGT closed in 2012.

Thanks again for your time in this matter,

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

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**From:** Kandis Roland <kroland@hilcorp.com>  
**Sent:** Monday, January 10, 2022 11:35 AM  
**To:** Whitehead, Christopher , EMNRD <Chris.Whitehead@state.nm.us>  
**Cc:** Mandi Walker <mwalker@hilcorp.com>; Kandis Roland <kroland@hilcorp.com>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

Attached is the sample report for the testing on 12/10/21. Sample results are in compliance with thresholds. I wasn't sure where you wanted this uploaded. Just let me know.

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan East/South Regulatory  
713.757.5246  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Sent:** Friday, December 3, 2021 10:47 AM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

I understand HilCorp has done due diligence to follow-up on this historical closure, so appreciate the effort. Since the application is still open, be sure to just upload the addendum data and narrative separate from the report, I can combine them during review for posting to the file.

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Friday, December 3, 2021 9:32 AM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>; Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

We finally heard back but were unsuccessful on finding any additional documentation. HEC will proceed with taking soil samples on the west tank on Friday 12/10/21. I will send out an official 72 hr notice for this work.

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan East/South Regulatory  
713.757.5246  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Wednesday, December 1, 2021 2:24 PM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>; Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

I just wanted to give you an update on this BGT. Our Environmental group has reached out the company that took the samples in 2012 to see if they the additional document that is needed. I will let you know once we hear back from them.

Thanks,  
Kandis

---

**From:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Sent:** Tuesday, November 30, 2021 10:17 AM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Kandis,

I still have this issue in my queue; was there any progress in producing the historical final closure sampling? If not, if samples can be collected from 1' from the historical depth of the BGT and the results are below the applicable standards then this can be submitted with the historical data to demonstrate compliance.

Let me know if you need any other information regarding this,

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Thursday, October 21, 2021 1:51 PM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

I will be out on vacation starting tomorrow and all next week. I have not heard back on this one but will follow up once I am back.

Thanks,  
Kandis

---

**From:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Sent:** Wednesday, October 20, 2021 3:09 PM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Kandis,

Unfortunately, while reviewing the West Tank closure filed application ID 56261, which has an incidence number NJK1325438462 which has not been closed, I see why this issue has persisted and been left in limbo. The problem is that the initial characterization of contamination that occurred in March and April of 2013 is submitted in both the incidence and the document you filed. In addition, your closure report includes a report that states sampling was performed (samples SC-3 through SC-7); however, no analytical data demonstrating the reported results is included, nor is it found in the record.

To close both the incidence and the now removed BGT, either 1) the analytical data package discussed in the 8/2013 closure report needs to be included in the submittal, or 2) current sampling at the location of BGT WEST and at the depths of the initial contamination discovery is needed.

Please let me know if option 1) is viable and if so, I will leave this submittal open and append it to the closure; however if option 2) is the only option, I will reject this submittal and a new closure report including all the current documentation appending a narrative that describes the closure actions performed/simulated will be needed (including photo-documentation, plot plans, etc).

I could not know this data would not be included until I reviewed the submittal, so this circumstance was unavoidable in this context.

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Friday, October 15, 2021 9:31 AM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

I have filed all three permits. Thanks for helping to get this one cleaned up!

East Tank Registration C-144LB – Action ID 56255  
East Tank Closure C-144B – Action ID 56259  
West Tank Closure C-144B – Action ID 56261

Happy Friday,

Kandis Roland  
HILCORP ENERGY  
San Juan East/South Regulatory  
713.757.5246  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Thursday, October 14, 2021 1:00 PM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>; Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Thanks Chris! I will file the C-144 Closure for the West Tank.

East Tank – A BGT permit was never filed. I am working on the registration that I will file through C-144LB and then I will file a C-144B Closure.

---

**From:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Sent:** Thursday, October 14, 2021 12:50 PM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

I see, the concern here, that is acceptable. At that time, the remedial action would have occurred under the C-141 anyway, so the proper procedure was followed, but yes we do require the C-144 closure to announce that the action was taken through that process.

Will the East Tank also have its documentation submitted? I will go ahead and create the entry for the West tank on the well profile and label it BGT West with the expectation BGT East will be instead of the typical integer identifiers.

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Thursday, October 14, 2021 11:40 AM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>; Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

I agree this one is a mess. I am working on permitting the East tank as described below.

The West tank was permitted in 2008 and the scanned permit was uploaded to OCD 12/13/2019. The tank was removed after the C-141 closure in 2013 and replaced with an AGT. The C-144 BGT closure paperwork was never filed. Am I good to file the C-144 closure for this west tank using the

sample report from 2013?

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan East/South Regulatory  
713.757.5246  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

Kandis

---

**From:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Sent:** Tuesday, October 12, 2021 10:04 AM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Cc:** Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** RE: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Hello, it appears to be a fairly typical matter of complete compounded confusion. In general, if no closure action is being performed or simulated, then no notice is required. If I understand this correctly, the registration in the well file submitted 12/13/2019 is presumed to be for the west tank six years after closure was performed under a C-141 and a release identified so this BGT is resolved.

The east tank was not registered and its closure not submitted. Does a legacy registration exist for this BGT? Whatever records exist for this, the OCD should have these on file. If a legacy registration exists, please file it through the C-144LB form. If no registration exists, please create a new form with current signatures and dates but submit it through the C-144LB form. After the registration is submitted, please submit the historical closure report through the C-144B system. Please include this correspondence on any submissions associated with this BGT.

**Christopher Whitehead** • Environmental Specialist  
Environmental Bureau • EMNRD - OCD

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Friday, October 8, 2021 1:00 PM  
**To:** Whitehead, Christopher , EMNRD <[Chris.Whitehead@state.nm.us](mailto:Chris.Whitehead@state.nm.us)>  
**Cc:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>; Mandi Walker <[mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)>  
**Subject:** FW: [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Chris,

Here is another historical BGT that needs cleaned up.  
COP closed out both BGTs and had samples done, see attached, but never filed a C-144 BGT closure.

West Tank – Tank was closed and sampled in 2013. I found a C-141 on OCD's website for this BGT, see attached. This tank also has a BGT permit on file as well. I was not able to find a 72 hr notice in COP records. There is currently an AGT where the BGT once was.

East Tank – See attached sample report found for this BGT. It was closed and sampled in 2013 as well. This tank was never registered as a BGT. Unable to find a 72 hr notice in COP records.

Can I file a closure report using the sample report attached and no 72 hr notice for the West Tank? For the East Tank, this was never registered as a BGT. Do I need to file any paper work for this tank?

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan East/South Regulatory  
713.757.5246  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Sent:** Friday, February 12, 2021 3:23 PM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>; Kelly, Jonathan, EMNRD <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>  
**Cc:** Cheryl Weston <[cweston@hilcorp.com](mailto:cweston@hilcorp.com)>  
**Subject:** [EXTERNAL] RE: SAN JUAN 28-7 UNIT 58A - INC

Kandis,

No I haven't.. I have 69 of these sites.. plus all of our normal other C-144.. I am getting flooded with these request.

**Cory Smith** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Sent:** Friday, February 12, 2021 2:03 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Kelly, Jonathan, EMNRD <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>  
**Cc:** Cheryl Weston <[cweston@hilcorp.com](mailto:cweston@hilcorp.com)>; Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** [EXT] RE: SAN JUAN 28-7 UNIT 58A - INC

Cory,

Have you had a chance to review this? The INC for this is due 2/21/2021.

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan South Regulatory  
505.324.5149  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Kandis Roland  
**Sent:** Friday, February 5, 2021 12:01 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; 'Kelly, Jonathan, EMNRD' <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>  
**Cc:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>; Cheryl Weston <[cweston@hilcorp.com](mailto:cweston@hilcorp.com)>  
**Subject:** FW: SAN JUAN 28-7 UNIT 58A - INC

Cory,

COP closed out both BGTs and had samples done, see attached, but never filed a C-144 BGT closure.

West Tank – Tank was closed and sampled in 2013. I found a C-141 on OCD's website for this BGT, see attached. This tank also has a BGT permit on file as well. I was not able to find a 72 hr notice in COP records. There is currently an AGT where the BGT once was.

East Tank – See attached sample report found for this BGT. It was closed and sampled in 2013 as well. This tank was never registered as a BGT. Unable to find a 72 hr notice in COP records.

Thanks,

Kandis Roland  
HILCORP ENERGY  
San Juan South Regulatory  
505.324.5149  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

---

**From:** Clara Cardoza  
**Sent:** Tuesday, November 24, 2020 8:28 AM  
**To:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>  
**Subject:** RE: SAN JUAN 28-7 UNIT 58A - INC

I found two reports for the BGTs.

---

**From:** Kandis Roland  
**Sent:** Tuesday, November 24, 2020 6:42 AM  
**To:** Ryan Frost <[rfrost@hilcorp.com](mailto:rfrost@hilcorp.com)>; Clara Cardoza <[ccardoza@hilcorp.com](mailto:ccardoza@hilcorp.com)>; Mark McKnight <[mmcknight@hilcorp.com](mailto:mmcknight@hilcorp.com)>; Trey Sullivan <[tsullivan@hilcorp.com](mailto:tsullivan@hilcorp.com)>  
**Cc:** Kandis Roland <[kroland@hilcorp.com](mailto:kroland@hilcorp.com)>; Cheryl Weston <[cweston@hilcorp.com](mailto:cweston@hilcorp.com)>

Subject: SAN JUAN 28-7 UNIT 58A - INC

<b>Today's Date:</b>	11/24/2020					
<b>Well Name:</b>	SAN JUAN 28-7 UNIT 58A	<b>Location:</b>	Sec: 29	Twn: 028N	Rng: 007W	UL: D
<b>API Number:</b>	30.039.23983	<b>Footage:</b>	790' FNL & 790' FWL			
<b>Operator:</b>	Hilcorp Energy Company	<b>Area/Run/MSO:</b>	10	1006	Cliff Hadden	
<b>Meter #:</b>	95-777-01		<b>Pipeline:</b>	ENT		
<b>INC Number:</b>	cJK2032856523	<b>Agency:</b>	OCD	<b>Inspector:</b>	Jonathan Kelly	
<b>Type of INC:</b>	Verbal	<b>Photos Required:</b>	Yes	<b>Due Date:</b>	2/21/2021	
<b>Issue of Concern:</b>	- Review of prior inspections found that in 2011 inspection location had 2 BGTs prior to the #238N being drilled, both have been closed, no C-144 Closure permits in well file 1 BGT permit in well file.					

Kandis Roland  
HILCORP ENERGY  
San Juan South Regulatory  
505.324.5149  
[kroland@hilcorp.com](mailto:kroland@hilcorp.com)

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While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

---



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

December 21, 2021

Kate Kaufman  
HILCORP ENERGY  
PO Box 4700  
Farmington, NM 87499  
TEL: (505) 564-0733  
FAX:

RE: SJ 28 7 58A BGT Closure

OrderNo.: 2112851

Dear Kate Kaufman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/14/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](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 #NM0901

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2112851**

Date Reported: **12/21/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** HILCORP ENERGY

**Client Sample ID:** W BGT 5 Point

**Project:** SJ 28 7 58A BGT Closure

**Collection Date:** 12/13/2021 1:33:00 PM

**Lab ID:** 2112851-001

**Matrix:** SOIL

**Received Date:** 12/14/2021 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/16/2021 11:35:17 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/16/2021 11:35:17 AM
Surr: DNOP	102	70-130		%Rec	1	12/16/2021 11:35:17 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/16/2021 3:26:12 AM
Surr: BFB	99.6	70-130		%Rec	1	12/16/2021 3:26:12 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	12/16/2021 3:26:12 AM
Toluene	ND	0.048		mg/Kg	1	12/16/2021 3:26:12 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/16/2021 3:26:12 AM
Xylenes, Total	ND	0.096		mg/Kg	1	12/16/2021 3:26:12 AM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	12/16/2021 3:26:12 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	12/20/2021 6:02:11 PM

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
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2112851

21-Dec-21

**Client:** HILCORP ENERGY  
**Project:** SJ 28 7 58A BGT Closure

Sample ID: <b>MB-64644</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>64644</b>	RunNo: <b>84672</b>								
Prep Date: <b>12/20/2021</b>	Analysis Date: <b>12/20/2021</b>	SeqNo: <b>2977717</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-64644</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>64644</b>	RunNo: <b>84672</b>								
Prep Date: <b>12/20/2021</b>	Analysis Date: <b>12/20/2021</b>	SeqNo: <b>2977718</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	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
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- 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 Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2112851

21-Dec-21

**Client:** HILCORP ENERGY  
**Project:** SJ 28 7 58A BGT Closure

Sample ID: <b>MB-64526</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>64526</b>	RunNo: <b>84564</b>								
Prep Date: <b>12/15/2021</b>	Analysis Date: <b>12/16/2021</b>	SeqNo: <b>2973590</b>	Units: <b>mg/Kg</b>							
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	9.2		10.00		91.6	70	130			

Sample ID: <b>LCS-64526</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>64526</b>	RunNo: <b>84564</b>								
Prep Date: <b>12/15/2021</b>	Analysis Date: <b>12/16/2021</b>	SeqNo: <b>2973591</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.7	68.9	135			
Surr: DNOP	4.4		5.000		87.6	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
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- 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 Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2112851

21-Dec-21

**Client:** HILCORP ENERGY  
**Project:** SJ 28 7 58A BGT Closure

Sample ID: <b>mb-64506</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>64506</b>	RunNo: <b>84565</b>								
Prep Date: <b>12/14/2021</b>	Analysis Date: <b>12/15/2021</b>	SeqNo: <b>2972207</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	70	130			

Sample ID: <b>lcs-64506</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>64506</b>	RunNo: <b>84565</b>								
Prep Date: <b>12/14/2021</b>	Analysis Date: <b>12/15/2021</b>	SeqNo: <b>2972208</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	78.6	131			
Surr: BFB	1100		1000		114	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
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- 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 Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2112851

21-Dec-21

**Client:** HILCORP ENERGY  
**Project:** SJ 28 7 58A BGT Closure

Sample ID: <b>mb-64506</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>64506</b>	RunNo: <b>84565</b>								
Prep Date: <b>12/14/2021</b>	Analysis Date: <b>12/15/2021</b>	SeqNo: <b>2972255</b>	Units: <b>mg/Kg</b>							
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		106	70	130			

Sample ID: <b>LCS-64506</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>64506</b>	RunNo: <b>84565</b>								
Prep Date: <b>12/14/2021</b>	Analysis Date: <b>12/15/2021</b>	SeqNo: <b>2972256</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.6	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	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                          |
| PQL Practical Quantitative Limit                                     | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix interference |   |



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

Sample Log-In Check List

Client Name: HILCORP ENERGY

Work Order Number: 2112851

RcptNo: 1

Received By: Desiree Dominguez 12/14/2021 8:10:00 AM

Handwritten initials: DD

Completed By: Desiree Dominguez 12/14/2021 9:51:00 AM

Handwritten initials: DD

Reviewed By: MPG 12/14/21

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [ ] No [ ] NA [checked]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: m12/14/21

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.9, Good, Yes, [ ], [ ], [ ]

### Chain-of-Custody Record

Client: Hilcorp

Turn-Around Time:  Standard  Rush 5 day Turn

Project Name: SJ 28-7 S8ABGT Closure

Project #: \_\_\_\_\_

Project Manager: K Kaufman

Sampler: Cardozo

On Ice:  Yes  No

# of Coolers: 1

Cooler Temp (including CP): 1.9 + 0.0 = 1.9 (°C)

Container Type and #: Glass 4oz

Preservative Type: -

HEAL No.: 2112851

-001

Date: 12/13/21 Time: 1330 Matrix: Soil Sample Name: WBGT 5 Point

Date	Time	Relinquished by	Via	Date	Time
<u>12/13/21</u>	<u>1516</u>	<u>[Signature]</u>	<u>WA</u>	<u>12/13/21</u>	<u>1516</u>
<u>12/13/21</u>	<u>1802</u>	<u>[Signature]</u>	<u>Courier</u>	<u>12/14/21</u>	<u>8:10</u>

Analysis Request		Remarks:
BTEX / MTBE / TMB's (8021)	<input checked="" type="checkbox"/>	
TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/>	
8081 Pesticides/8082 PCB's		
EDB (Method 504.1)		
PAHs by 8310 or 8270SIMS		
RCRA 8 Metals		
Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>		
8260 (VOA)		
8270 (Semi-VOA)		
Total Coliform (Present/Absent)		<u>7 Chunks 300.0</u>



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in 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 E. 30<sup>th</sup> Street, Farmington, NM 87402</b>	Telephone No. <b>505-326-9786</b>
Facility Name <b>San Juan 28-7 Unit 58A – West Tank</b>	Facility Type <b>Gas Well</b>

Surface Owner <b>Federal</b>	Mineral Owner <b>Federal</b>	API No. <b>3003923983</b> <b>SF-078497</b>
------------------------------	------------------------------	---

#### LOCATION OF RELEASE

Unit Letter <b>D</b>	Section <b>29</b>	Township <b>28N</b>	Range <b>07W</b>	Feet from the <b>790'</b>	North/South Line <b>North</b>	Feet from the <b>790'</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------------

Latitude 36.637665 Longitude -107.60258

#### NATURE OF RELEASE

Type of Release <b>Unknown</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>60 cubic yds</b>
Source of Release <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>March 1, 2013</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	<b>RCVD SEP 5 '13</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>OIL CONS. DIV. DIST. 3</b>	

If a Watercourse was Impacted, Describe Fully.\*

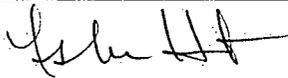
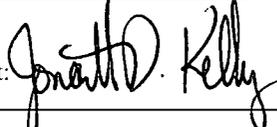
N/A

Describe Cause of Problem and Remedial Action Taken.\*

#### Below Grade Tank Activities.

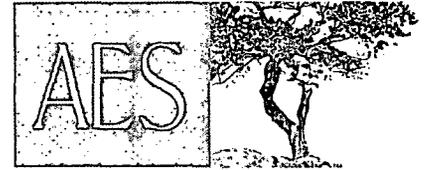
Describe Area Affected and Cleanup Action Taken.\* **Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 18' x 18' x 11' in depth and 60 yds of soil was transported to IEI land farm and 60 yds of clean soil was transported from Pacheco Ranch and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.**

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lisa M. Hunter</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>9/1/2013</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>August 27, 2013</b>	Phone: <b>505-326-9786</b>	

\* Attach Additional Sheets If Necessary

*NSK 1325438462*



Animas Environmental Services, LLC

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

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

August 19, 2013

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
Office 214-4  
5525 Hwy 64  
Farmington, New Mexico 87401

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

**RE: West Below Grade Tank Closure, Release Assessment,  
and Final Excavation Report  
San Juan 28-7 #58A  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On March 1, 4, and 5, and June 18, 2013, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, an initial release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-7 #58A west BGT located in Rio Arriba County, New Mexico. The historical release was discovered during BGT closure sampling at the location. An initial release assessment was completed on March 5, 2013. The final excavation was completed by contractors prior to AES' arrival on location on June 18, 2013.

---

## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 28-7 #58A West BGT  
Legal Description - NW¼ NW¼, Section 29, T28N, R7W, Rio Arriba County, New Mexico  
Well Latitude/Longitude – N36.63766 and W107.60315, respectively  
BGT/Release Latitude/Longitude - N36.63792 and W107.60345, respectively  
Land Jurisdiction - Bureau of Land Management (BLM)  
Figure 1 - Topographic Site Location Map  
Figure 2 - Aerial Site Map, March 2013

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A Pit Remediation and Closure Report form dated November 2000 reported the depth to groundwater as less than 50 feet below ground surface (bgs). (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Carrizo Creek is located approximately 350 feet south of the location. (10 points)

## 1.3 Assessments

AES was initially contacted by Steve Welch, CoP representative, on February 28, 2013, for BGT closure sampling at the location. On March 1, 2013, Corwin Lameman and Kelsey Christiansen of AES traveled to the location and collected six soil samples from approximately 0.5 feet below the BGT liner. On March 4, 2013, AES returned to the location and collected an additional five point composite sample (SC-2) from approximately 1.5 feet below the BGT liner. Sample locations are included on Figure 2.

On March 5, 2013, AES personnel completed the release assessment field work. The assessment included collection and field screening of 13 soil samples from six test holes (TH-1 through TH-6). Based on field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On June 18, 2013, AES personnel returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-3 through SC-7) of the walls and base of the excavation. The final excavation measured 21 feet by 25 feet by 11 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

---

## 2.0 Soil Sampling

On March 1, 2013, during BGT closure sampling, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). A five point composite sample (SC-1) was collected for confirmation laboratory analysis.

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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On March 4, 2013, an additional five point composite sample (SC-2) was collected from approximately 1.5 feet below the former BGT for confirmation laboratory analysis.

A total of 13 soil samples from 6 test holes (TH-1 through TH-6) and 5 composite samples (SC-3 through SC-7) were collected during the release and excavation assessments. All soil samples were field screened for VOCs, and selected samples were analyzed for TPH.

## 2.1 Soil Field Screening

### 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors 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 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*.

## 2.2 Laboratory Analyses

The composite soil samples (SC-1 and SC-2) 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. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B; and
- Chlorides per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

On March 1, 2013, BGT closure field screening readings for VOCs via OVM ranged from 0.2 ppm in S-2 up to 1,205 ppm in S-5. Field TPH concentrations ranged from less than 20.0 mg/kg in S-1 to 1,430 mg/kg in S-5.

Lisa Hunter  
 San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
 August 19, 2013  
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On March 5, 2013, initial assessment field screening readings for VOCs via OVM ranged from 0.1 ppm in TH-5 up to 55.7 ppm in TH-1. Field TPH concentrations ranged from less than 20.0 mg/kg in TH-4 through TH-6 to 124 mg/kg in TH-1.

On June 18, 2013, final excavation field screening results for VOCs via OVM ranged from 2.1 ppm in SC-3 up to 2.5 ppm in SC-6 and SC-7. Field TPH concentrations ranged from 48.3 mg/kg in SC-6 to 82.7 mg/kg in SC-4. Field screening VOC and TPH results are summarized in Table 1 and on Figures 2 through 4. The AES field screening reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results  
 San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
 March and June 2013

Sample ID	Date Sampled	Sample Depth (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
<b>NMOCOD Action Level*</b>			<b>100</b>	<b>100</b>
S-1	3/1/13	0.5	6.1	<20.0
S-2	3/1/13	0.5	0.2	20.5
S-3	3/1/13	0.5	2.1	<b>379</b>
S-4	3/1/13	0.5	1.6	26.1
S-5	3/1/13	0.5	<b>1,205</b>	<b>1,430</b>
TH-1	3/5/13	10	55.7	<b>124</b>
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
		1.5	1.5	NA
TH-3	3/5/13	4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0
SC-3	6/18/13	1 to 11	2.1	55.2

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San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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Sample ID	Date Sampled	Sample Depth (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
SC-4	6/18/13	1 to 11	2.2	82.7
SC-5	6/18/13	1 to 11	2.3	74.4
SC-6	6/18/13	1 to 11	2.5	48.3
SC-7	6/18/13	11	2.5	49.7

NA – not analyzed

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

Laboratory analytical results for SC-1 collected on March 1, 2013, showed the benzene concentration was below the laboratory detection limit of 0.25 mg/kg. The total BTEX concentration was 2.2 mg/kg. TPH concentrations (as GRO/DRO) were reported at 236 mg/kg. The chloride concentration was below the laboratory detection limit of 30 mg/kg.

Laboratory analytical results for SC-2 collected on March 4, 2013, from approximately 1.5 feet below the former BGT, had a benzene concentration reported below the laboratory detection limit of 0.12 mg/kg. The total BTEX concentration was 1.5 mg/kg. TPH concentrations (as GRO/DRO) were reported at 144 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figures 2 and 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
March and June 2013

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOCD Action Level*</b>			<b>0.2/10</b>	<b>50</b>	<b>100</b>	<b>250/NE</b>	
SC-1	3/1/13	0.5	<0.25	2.2	220	16	<30
SC-2	3/4/13	1.5	<0.12	1.5	110	34	<30

NE – not established

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
Page 6 of 7

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### 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. On March 1, 2013, field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-3 (379 mg/kg) and S-5 (1,430 mg/kg). Laboratory analytical results for TPH (as GRO/DRO) in SC-1 and SC-2 were also reported above the NMOCD action level of 100 mg/kg with 236 mg/kg and 144 mg/kg, respectively. Benzene and total BTEX concentrations in SC-1 and SC-2 were below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations were reported below the NMOCD action level of 250 mg/kg. Based on field and laboratory analytical results, a release was confirmed at the location.

On March 5, 2013, AES conducted an initial assessment associated with a historical release discovered during BGT closure confirmation sampling. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a ranking of 30. Field screening results for VOCs via OVM were below the NMOCD action level of 100 ppm in each sample, with the highest concentration of 55.7 ppm reported in TH-1. Field TPH concentrations above the NMOCD action level of 100 mg/kg were reported in TH-1 (124 mg/kg).

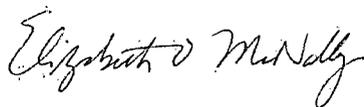
On June 18, 2013, final assessment of the excavation area was completed. Field screening results of the excavation showed that concentrations of VOCs and TPH were below NMOCD action levels for each of the final four walls and base of the excavation. No further work is recommended for the San Juan 28-7 #58A west BGT release area.

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

Sincerely,



Landrea Cupps  
Environmental Scientist



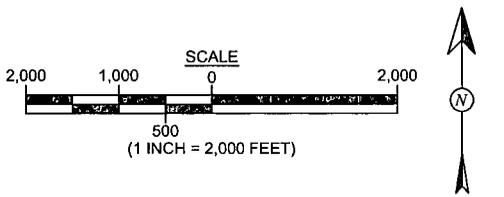
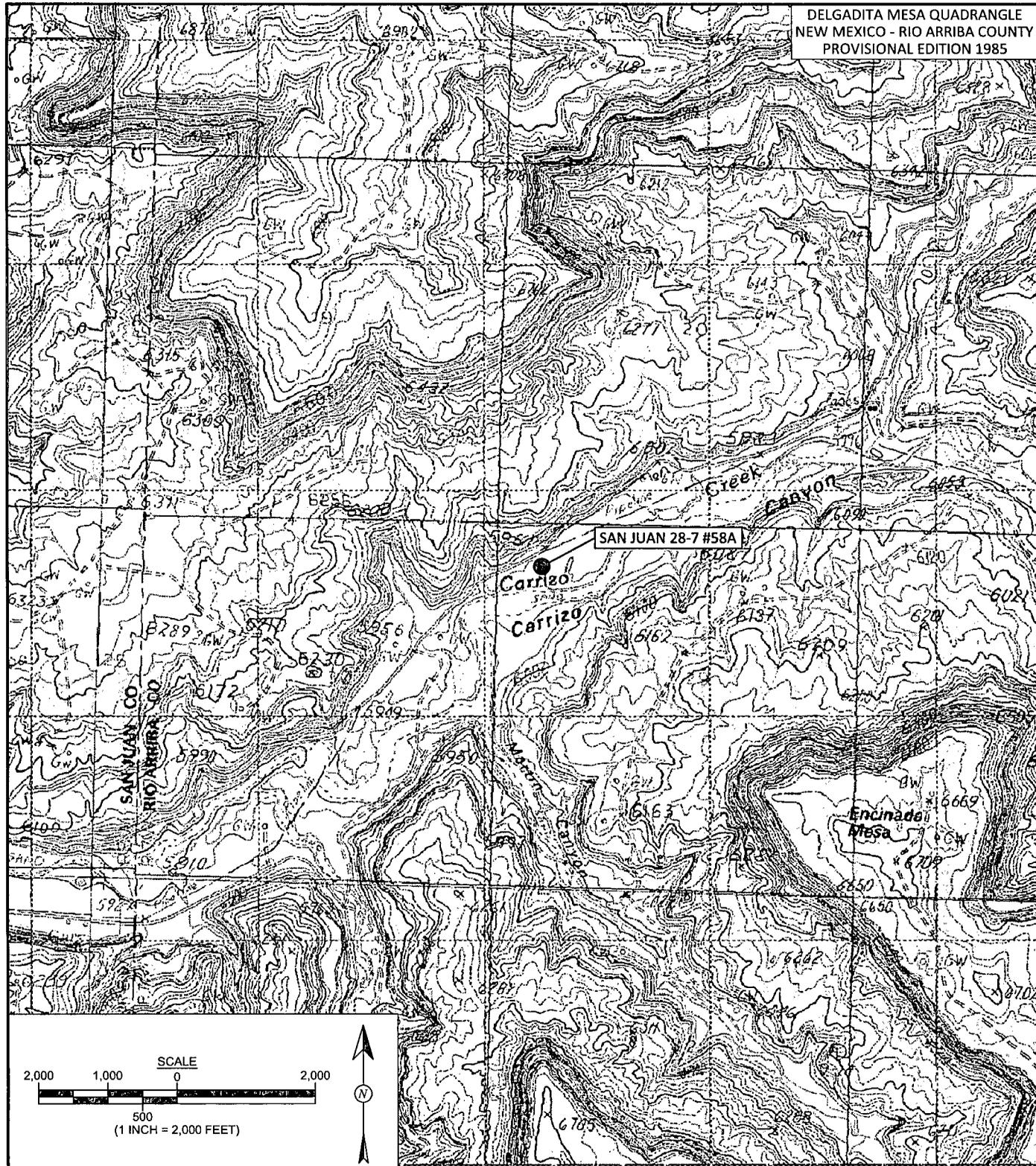
Elizabeth McNally, P.E.

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
Page 7 of 7

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, March 2013
- Figure 3. Initial Assessment Sample Locations and Results, March 2013
- Figure 4. Final Excavation Sample Locations and Results, June 2013
- AES Field Screening Reports (030113, 030513, and 061813)
- Hall Analytical Reports (1303031 and 1303112)

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 28-7 #58A\Assessment\CoP San Juan 28-7 #58A BGT Closure Assessment and Excavation Report 081913.docx



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013

**FIGURE 1**  
**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
SAN JUAN 28-7 #58A  
NW¼ NW¼, SECTION 29, T28N, R7W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36.63766, W107.60315

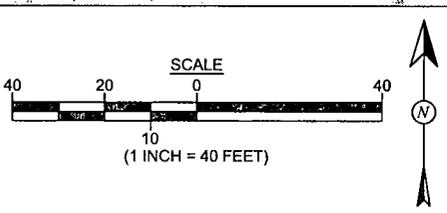
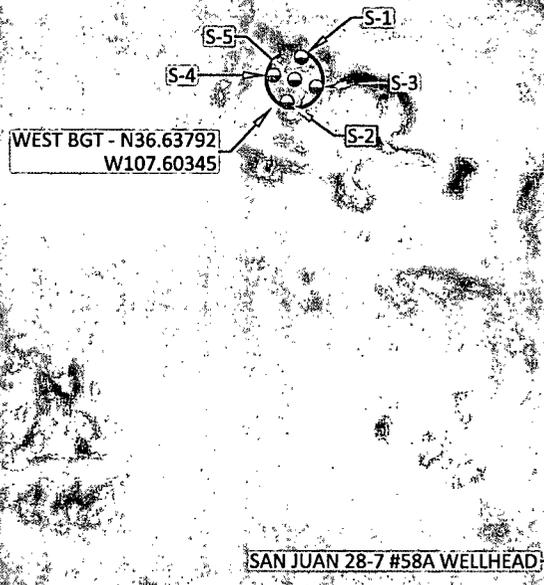
**LEGEND**  
 **SAMPLE LOCATIONS**

Field Screening Results				
Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL</b>		—	100	250
S-1	3/1/13	6.1	<20.0	NA
S-2	3/1/13	0.2	20.5	NA
S-3	3/1/13	2.1	379	NA
S-4	3/1/13	1.6	26.1	NA
S-5	3/1/13	1,205	1,430	NA
SC-1 WEST TANK	3/1/13	NA	NA	NA

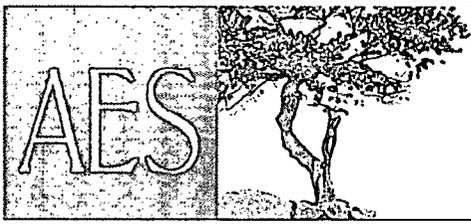
SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL</b>			0.2	50	100		250
SC-1 WEST TANK	3/1/13	0.5	<0.25	2.2	220	16	<30
SC-2	3/4/13	1.5	<0.12	1.5	110	34	<30

SC-2 WAS A 5-POINT COMPOSITE FROM BELOW THE BGT LINER. SAMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0.



AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013

**FIGURE 2**  
**AERIAL SITE MAP**  
**WEST BELOW GRADE TANK CLOSURE**  
**MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARriba COUNTY, NEW MEXICO  
 N36.63766, W107.60315

**FIGURE 3**

**INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARriba COUNTY, NEW MEXICO  
 N36.63769, W107.60322

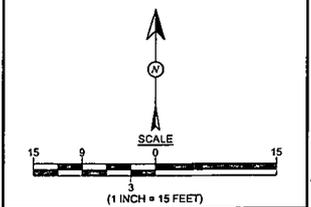


Animas Environmental Services, LLC.

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> March 5, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> March 5, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> March 5, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> March 5, 2013

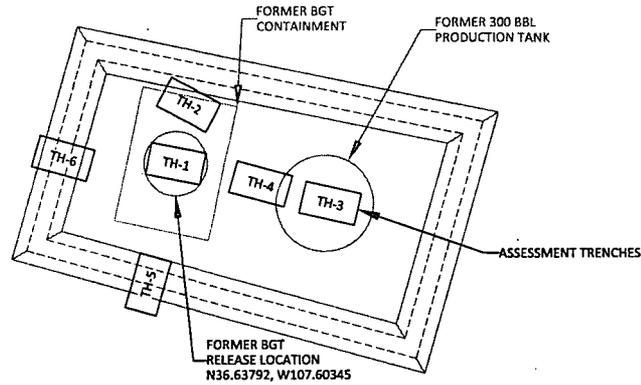
**LEGEND**

=====  
 SECONDARY CONTAINMENT BERM



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>		<b>100</b>	<b>100</b>	
TH-1	3/5/13	10	55.7	124
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
TH-3	3/5/13	1.5	1.5	NA
		4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0

NA - NOT ANALYZED



FORMER BGT

METER HOUSE

SAN JUAN 28-7 #238N WELLHEAD

SAN JUAN 28-7 #58A WELL MONUMENT



# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/1/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	3/1/2013	12:45	North	6.1	NA	14:16	<20.0	20.0	1	KC
S-2	3/1/2013	12:48	South	0.2	NA	14:24	20.5	20.0	1	KC
S-3	3/1/2013	12:51	East	2.1	NA	14:27	379	20.0	1	KC
S-4	3/1/2013	12:52	West	1.6	NA	14:30	26.1	20.0	1	KC
S-5	3/1/2013	12:55	Center	1,205	NA	14:34	1,430	20.0	1	KC

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

NA Not Analyzed

DF Dilution Factor

\*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 Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/5/2013

Matrix: Soil

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 10'	3/5/2013	11:18	55.7	12:16	124	20.0	1	HMW
TH-1 @ 12'	3/5/2013	11:21	4.6	12:13	<20.0	20.0	1	HMW
TH-2 @ 5'	3/5/2013	11:25	1.2	12:43	28.9	20.0	1	HMW
TH-2 @ 9'	3/5/2013	11:27	0.6	Not Analyzed for TPH				
TH-3 @ 1.5'	3/5/2013	11:33	1.5	Not Analyzed for TPH				
TH-3 @ 4.5'	3/5/2013	11:35	2.7	Not Analyzed for TPH				
TH-3 @ 8'	3/5/2013	11:40	1.6	Not Analyzed for TPH				
TH-4 @ 4.5'	3/5/2013	11:42	0.5	12:46	<20.0	20.0	1	HMW
TH-4 @ 9'	3/5/2013	11:45	1.2	Not Analyzed for TPH				
TH-5 @ 4'	3/5/2013	11:47	0.2	12:48	<20.0	20.0	1	HMW
TH-5 @ 9.5'	3/5/2013	11:48	0.1	Not Analyzed for TPH				
TH-6 @ 4'	3/5/2013	11:51	0.5	Not Analyzed for TPH				
TH-6 @ 9'	3/5/2013	11:53	2.7	12:50	<20.0	20.0	1	HMW

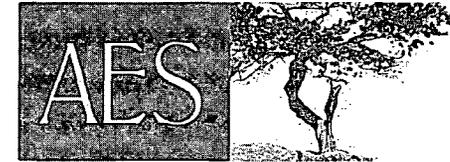
Total Petroleum Hydrocarbons - USEPA 418.1

- PQL: Practical Quantitation Limit
- ND: Not Detected at the Reporting Limit
- DF: Dilution Factor
- NA: Not Analyzed

Analyst:

*Leather M. Woods*

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 6/18/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-3	6/18/2013	8:37	South Wall	2.1	9:18	55.2	20.0	1	HMW
SC-4	6/18/2013	8:39	North Wall	2.2	9:21	82.7	20.0	1	HMW
SC-5	6/18/2013	8:41	West Wall	2.3	9:23	74.4	20.0	1	HMW
SC-6	6/18/2013	8:43	East Wall	2.5	9:26	48.3	20.0	1	HMW
SC-7	6/18/2013	8:45	Base	2.5	9:29	49.7	20.0	1	HMW

PQL Practical Quantitation Limit  
 ND Not Detected at the Reporting Limit  
 NA Not Analyzed  
 DF Dilution Factor

Total Petroleum Hydrocarbons - USEPA 418.1

\*Field TPH concentrations recorded may be below PQL.

Analyst:

*Heather M. Woods*



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)

April 12, 2013

Debbie Watson  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: San Juan 28-7 #58A

OrderNo.: 1303031

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/2/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued March 05, 2013.

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. 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. All samples are reported as received unless otherwise indicated.

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

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

Analytical Report

Lab Order 1303031

Date Reported: 4/12/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** ~~SC-2 West Tank~~ SC-1 West Tank -Irc

**Project:** San Juan 28-7 #58A

**Collection Date:** 3/1/2013 1:26:00 PM

**Lab ID:** 1303031-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/2/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	16	10		mg/Kg	1	3/4/2013 6:27:05 PM
Surr: DNOP	101	72.4-120		%REC	1	3/4/2013 6:27:05 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	220	25		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: BFB	301	84-116	S	%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Toluene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Ethylbenzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Xylenes, Total	2.2	0.50		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: 4-Bromofluorobenzene	118	80-120		%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/4/2013 10:52:41 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	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 greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID	<b>MB-6301</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255320</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-6301</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255321</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	102	90	110			

Sample ID	<b>1303031-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>SC-1 East Tank</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255323</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	93	30	15.00	85.25	51.0	64.4	117			S

Sample ID	<b>1303031-001BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>SC-1 East Tank</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255324</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	100	30	15.00	85.25	113	64.4	117	9.56	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

WO#: 1303031

## Hall Environmental Analysis Laboratory, Inc.

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID <b>MB-6300</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>6300</b>		RunNo: <b>8953</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255779</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		99.0	72.4	120			

Sample ID <b>LCS-6300</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>6300</b>		RunNo: <b>8953</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255781</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	47.4	122			
Surr: DNOP	5.5		5.000		110	72.4	120			

Sample ID <b>1303034-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>		RunNo: <b>8961</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>		SeqNo: <b>257200</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.59	0	94.4	12.6	148			
Surr: DNOP	5.2		4.859		108	72.4	120			

Sample ID <b>1303034-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>		RunNo: <b>8961</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>		SeqNo: <b>257201</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.81	0	88.7	12.6	148	1.82	22.5	
Surr: DNOP	5.5		5.081		108	72.4	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID	<b>MB-6293</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255803</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	84	116			

Sample ID	<b>LCS-6293</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255804</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	62.6	136			
Surr: BFB	1300		1000		133	84	116			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

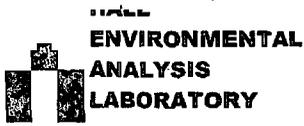
**Project:** San Juan 28-7 #58A

Sample ID	<b>MB-6293</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255857</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>LCS-6293</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255858</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	1.000	0	89.2	80	120			
Toluene	0.89	0.050	1.000	0	88.9	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	88.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

### Sample Log-In Check List

Client Name:	Animas Environmental	Work Order Number:	1303031
Received by/date:	<u>AF</u> <u>03/02/13</u>		
Logged By:	Lindsay Mangin	3/2/2013 12:00:00 PM	<i>Lindsay Mangin</i>
Completed By:	Lindsay Mangin	3/4/2013 8:06:26 AM	<i>Lindsay Mangin</i>
Reviewed By:	<u>IS</u>	<u>03/04/2013</u>	

#### Chain of Custody

- Were seals intact? Yes  No  Not Present
- Is Chain of Custody complete? Yes  No  Not Present
- How was the sample delivered? Courier

#### Log In

- Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- Was an attempt made to cool the samples? Yes  No  NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- Sample(s) in proper container(s)? Yes  No
- Sufficient sample volume for indicated test(s)? Yes  No
- Are samples (except VOA and ONG) properly preserved? Yes  No
- Was preservative added to bottles? Yes  No  NA
- VOA vials have zero headspace? Yes  No  No VOA Vials
- Were any sample containers received broken? Yes  No
- Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
- Are matrices correctly identified on Chain of Custody? Yes  No
- Is it clear what analyses were requested? Yes  No
- 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)

- 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:	_____		

18. Additional remarks:

#### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche Farmington NM 87401

Phone #: 564-2281

email or Fax#: \_\_\_\_\_

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

Accreditation  
 NELAP       Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time:  
 Standard       Rush same day

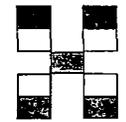
Project Name: San Juan 28-7 #58A

Project #: \_\_\_\_\_

Project Manager: D. Watson

Sampler: KC & CL

On Ice:  Yes       No  
 Sample Temperature: 3.9



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / #RO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chlorides (3000)
3-1-13	1228	Soil	SE1 East Tank	Meat Kit 4oz jar	Meat	-001	X	X										X
3-1-13	1326	Soil	SC-2 West Tank	Meat Kit 4oz jar	Meat	-002	X	X										X

Date: 3-1-13 Time: 1651 Relinquished by: [Signature]

Received by: Christine Wacker Date: 3/1/13 Time: 1651

Remarks: Bill to Conoco Phillips  
 WO: 10345859 User ID: BENALE

Date: 3/1/13 Time: 1715 Relinquished by: Christine Wacker

Received by: [Signature] Date: 3/2/13 Time: 12:00

Act. Code: C200 ordered by: Steve Welch  
 Supervisor: Sheldon M. Area: 23 Ron 355

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)

March 06, 2013

Debbie Watson

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-4071

FAX

RE: CoP San Juan 28-7 #58A West Tank

OrderNo.: 1303112

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/5/2013 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. 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. 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.

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

Analytical Report

Lab Order 1303112

Date Reported: 3/6/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: ~~SC-1~~ SC-2 -lrc

Project: CoP San Juan 28-7 #58A West Tank

Collection Date: 3/4/2013 11:50:00 AM

Lab ID: 1303112-001

Matrix: MEOH (SOIL)

Received Date: 3/5/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	34	10		mg/Kg	1	3/5/2013 1:12:38 PM
Surr: DNOP	103	72.4-120		%REC	1	3/5/2013 1:12:38 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	25		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: BFB	316	84-116	S	%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	3/5/2013 2:16:58 PM
Toluene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Ethylbenzene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Xylenes, Total	1.5	0.50		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/5/2013 11:32:57 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	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 greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID	<b>MB-6328</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256634</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-6328</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256635</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	1.5	15.00	0	104	90	110			

Sample ID	<b>1303064-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256638</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	4.634	83.5	64.4	117			

Sample ID	<b>1303064-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256639</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	7.5	15.00	4.634	92.2	64.4	117	7.31	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID <b>MB-6302</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256484</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	84	116			

Sample ID <b>LCS-6302</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256485</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	62.6	136			
Surr: BFB	1200		1000		120	84	116			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID: <b>MB-6302</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R8966</b>	RunNo: <b>8966</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>	SeqNo: <b>256514</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: <b>LCS-6302</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R8966</b>	RunNo: <b>8966</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>	SeqNo: <b>256515</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.92	0.050	1.000	0	92.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.5	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| 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 greater than 2                   | R RPD outside accepted recovery limits               |

Page 4 of 4



4901 Hawkins NE  
 Albuquerque, NM 87105  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: 1303112  
 Received by/date: AF 03/05/13  
 Logged By: **Michelle Garcia** 3/5/2013 9:55:00 AM *Michelle Garcia*  
 Completed By: **Michelle Garcia** 3/5/2013 10:09:15 AM *Michelle Garcia*  
 Reviewed By: [Signature] 03/05/13

**Chain of Custody**

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

**Log In**

- 4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. VOA vials have zero headspace? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
- 14. Are matrices correctly identified on Chain of Custody? Yes  No
- 15. Is it clear what analyses were requested? Yes  No
- 16. 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)**

- 17. 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: \_\_\_\_\_

18. Additional remarks:

**19. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			





Animas Environmental Services, LLC

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

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

August 19, 2013

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
Office 214-4  
5525 Hwy 64  
Farmington, New Mexico 87401

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

**RE: West Below Grade Tank Closure, Release Assessment,  
and Final Excavation Report  
San Juan 28-7 #58A  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On March 1, 4, and 5, and June 18, 2013, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, an initial release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-7 #58A west BGT located in Rio Arriba County, New Mexico. The historical release was discovered during BGT closure sampling at the location. An initial release assessment was completed on March 5, 2013. The final excavation was completed by contractors prior to AES' arrival on location on June 18, 2013.

---

## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 28-7 #58A West BGT

Legal Description - NW¼ NW¼, Section 29, T28N, R7W, Rio Arriba County, New Mexico

Well Latitude/Longitude – N36.63766 and W107.60315, respectively

BGT/Release Latitude/Longitude - N36.63792 and W107.60345, respectively

Land Jurisdiction - Bureau of Land Management (BLM)

Figure 1 - Topographic Site Location Map

Figure 2 - Aerial Site Map, March 2013

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
Page 2 of 7

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A Pit Remediation and Closure Report form dated November 2000 reported the depth to groundwater as less than 50 feet below ground surface (bgs). (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Carrizo Creek is located approximately 350 feet south of the location. (10 points)

## 1.3 Assessments

AES was initially contacted by Steve Welch, CoP representative, on February 28, 2013, for BGT closure sampling at the location. On March 1, 2013, Corwin Lameman and Kelsey Christiansen of AES traveled to the location and collected six soil samples from approximately 0.5 feet below the BGT liner. On March 4, 2013, AES returned to the location and collected an additional five point composite sample (SC-2) from approximately 1.5 feet below the BGT liner. Sample locations are included on Figure 2.

On March 5, 2013, AES personnel completed the release assessment field work. The assessment included collection and field screening of 13 soil samples from six test holes (TH-1 through TH-6). Based on field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On June 18, 2013, AES personnel returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-3 through SC-7) of the walls and base of the excavation. The final excavation measured 21 feet by 25 feet by 11 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

---

## 2.0 Soil Sampling

On March 1, 2013, during BGT closure sampling, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). A five point composite sample (SC-1) was collected for confirmation laboratory analysis.

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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On March 4, 2013, an additional five point composite sample (SC-2) was collected from approximately 1.5 feet below the former BGT for confirmation laboratory analysis.

A total of 13 soil samples from 6 test holes (TH-1 through TH-6) and 5 composite samples (SC-3 through SC-7) were collected during the release and excavation assessments. All soil samples were field screened for VOCs, and selected samples were analyzed for TPH.

## 2.1 Soil Field Screening

### 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors 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 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*.

## 2.2 Laboratory Analyses

The composite soil samples (SC-1 and SC-2) 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. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B; and
- Chlorides per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

On March 1, 2013, BGT closure field screening readings for VOCs via OVM ranged from 0.2 ppm in S-2 up to 1,205 ppm in S-5. Field TPH concentrations ranged from less than 20.0 mg/kg in S-1 to 1,430 mg/kg in S-5.

Lisa Hunter

San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report

August 19, 2013

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On March 5, 2013, initial assessment field screening readings for VOCs via OVM ranged from 0.1 ppm in TH-5 up to 55.7 ppm in TH-1. Field TPH concentrations ranged from less than 20.0 mg/kg in TH-4 through TH-6 to 124 mg/kg in TH-1.

On June 18, 2013, final excavation field screening results for VOCs via OVM ranged from 2.1 ppm in SC-3 up to 2.5 ppm in SC-6 and SC-7. Field TPH concentrations ranged from 48.3 mg/kg in SC-6 to 82.7 mg/kg in SC-4. Field screening VOC and TPH results are summarized in Table 1 and on Figures 2 through 4. The AES field screening reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
March and June 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>
<i>NMOCD Action Level*</i>			<b>100</b>	<b>100</b>
S-1	3/1/13	0.5	6.1	<20.0
S-2	3/1/13	0.5	0.2	20.5
S-3	3/1/13	0.5	2.1	<b>379</b>
S-4	3/1/13	0.5	1.6	26.1
S-5	3/1/13	0.5	<b>1,205</b>	<b>1,430</b>
TH-1	3/5/13	10	55.7	<b>124</b>
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
		1.5	1.5	NA
TH-3	3/5/13	4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0
SC-3	6/18/13	1 to 11	2.1	55.2

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
SC-4	6/18/13	1 to 11	2.2	82.7
SC-5	6/18/13	1 to 11	2.3	74.4
SC-6	6/18/13	1 to 11	2.5	48.3
SC-7	6/18/13	11	2.5	49.7

NA – not analyzed

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

Laboratory analytical results for SC-1 collected on March 1, 2013, showed the benzene concentration was below the laboratory detection limit of 0.25 mg/kg. The total BTEX concentration was 2.2 mg/kg. TPH concentrations (as GRO/DRO) were reported at 236 mg/kg. The chloride concentration was below the laboratory detection limit of 30 mg/kg.

Laboratory analytical results for SC-2 collected on March 4, 2013, from approximately 1.5 feet below the former BGT, had a benzene concentration reported below the laboratory detection limit of 0.12 mg/kg. The total BTEX concentration was 1.5 mg/kg. TPH concentrations (as GRO/DRO) were reported at 144 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figures 2 and 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
March and June 2013

<i>Sample ID</i>	<i>Date</i>	<i>Depth (ft)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH-GRO (mg/kg)</i>	<i>TPH-DRO (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>0.2/10</b>	<b>50</b>	<b>100</b>		<b>250/NE</b>
SC-1	3/1/13	0.5	<0.25	2.2	<b>220</b>	<b>16</b>	<30
SC-2	3/4/13	1.5	<0.12	1.5	<b>110</b>	<b>34</b>	<30

NE – not established

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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### 3.0 Conclusions and Recommendations

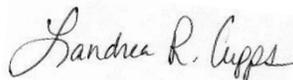
NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. On March 1, 2013, field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-3 (379 mg/kg) and S-5 (1,430 mg/kg). Laboratory analytical results for TPH (as GRO/DRO) in SC-1 and SC-2 were also reported above the NMOCD action level of 100 mg/kg with 236 mg/kg and 144 mg/kg, respectively. Benzene and total BTEX concentrations in SC-1 and SC-2 were below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations were reported below the NMOCD action level of 250 mg/kg. Based on field and laboratory analytical results, a release was confirmed at the location.

On March 5, 2013, AES conducted an initial assessment associated with a historical release discovered during BGT closure confirmation sampling. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a ranking of 30. Field screening results for VOCs via OVM were below the NMOCD action level of 100 ppm in each sample, with the highest concentration of 55.7 ppm reported in TH-1. Field TPH concentrations above the NMOCD action level of 100 mg/kg were reported in TH-1 (124 mg/kg).

On June 18, 2013, final assessment of the excavation area was completed. Field screening results of the excavation showed that concentrations of VOCs and TPH were below NMOCD action levels for each of the final four walls and base of the excavation. No further work is recommended for the San Juan 28-7 #58A west BGT release area.

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

Sincerely,



Landrea Cupps  
Environmental Scientist



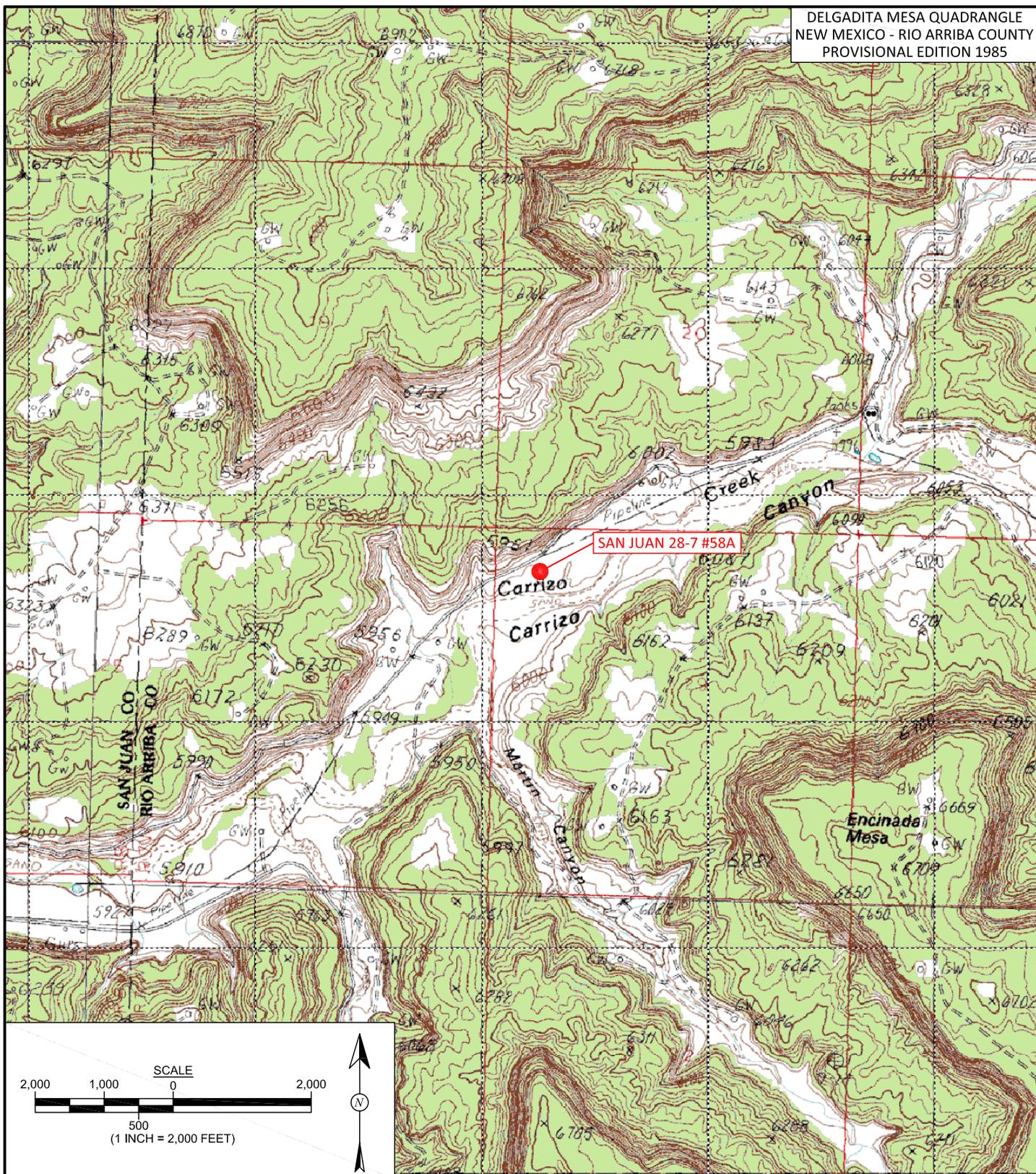
Elizabeth McNally, P.E.

Lisa Hunter  
San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
August 19, 2013  
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Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, March 2013
- Figure 3. Initial Assessment Sample Locations and Results, March 2013
- Figure 4. Final Excavation Sample Locations and Results, June 2013
- AES Field Screening Reports (030113, 030513, and 061813)
- Hall Analytical Reports (1303031 and 1303112)

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 28-7 #58A\Assessment\CoP San Juan 28-7 #58A BGT Closure Assessment and Excavation Report 081913.docx



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
SAN JUAN 28-7 #58A  
NW¼ NW¼, SECTION 29, T28N, R7W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36.63766, W107.60315

**LEGEND**

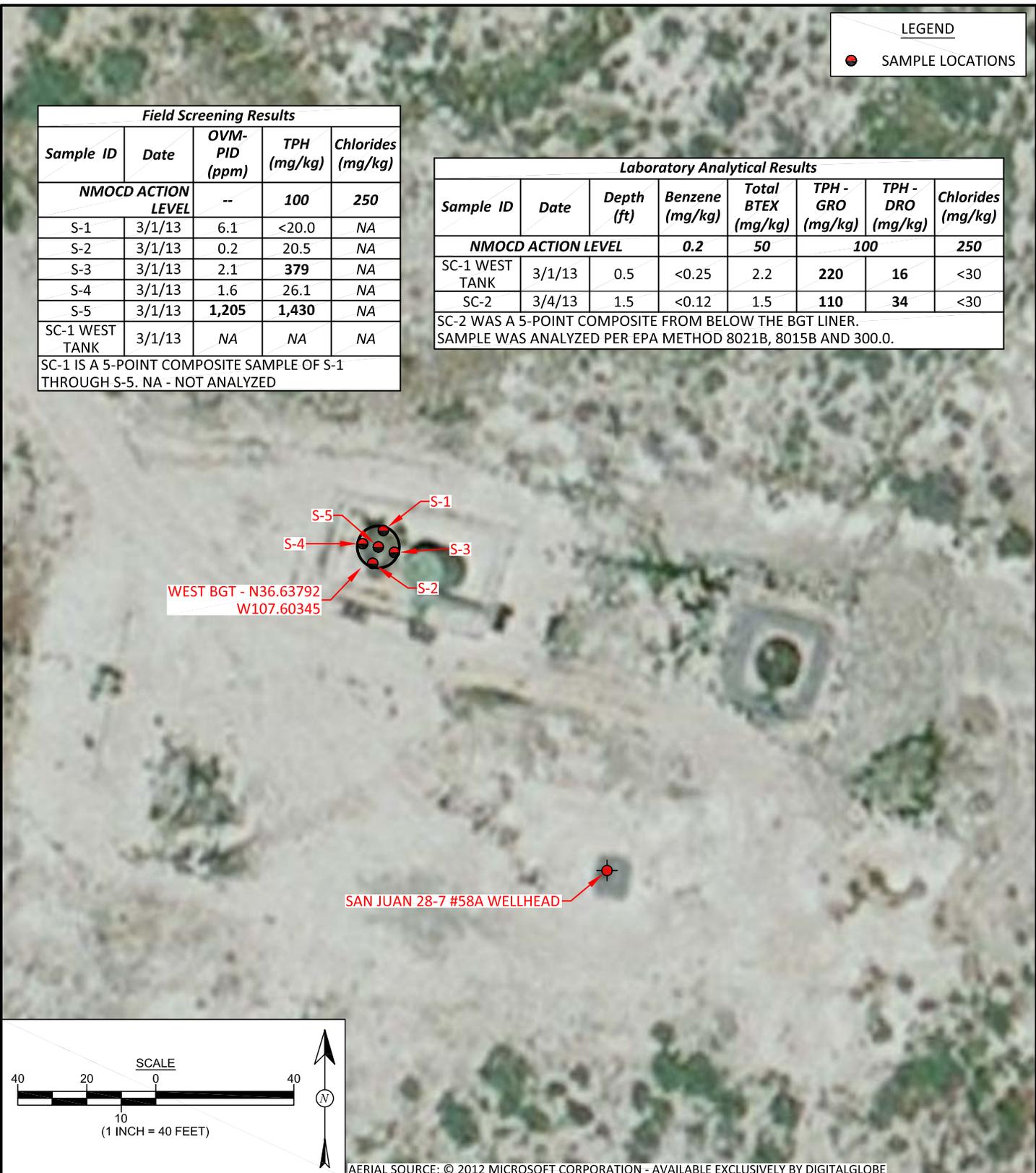
 **SAMPLE LOCATIONS**

Field Screening Results				
Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
<b>NMOCD ACTION LEVEL</b>		--	100	250
S-1	3/1/13	6.1	<20.0	NA
S-2	3/1/13	0.2	20.5	NA
S-3	3/1/13	2.1	379	NA
S-4	3/1/13	1.6	26.1	NA
S-5	3/1/13	1,205	1,430	NA
SC-1 WEST TANK	3/1/13	NA	NA	NA

SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOCD ACTION LEVEL</b>			0.2	50	100	250	
SC-1 WEST TANK	3/1/13	0.5	<0.25	2.2	220	16	<30
SC-2	3/4/13	1.5	<0.12	1.5	110	34	<30

SC-2 WAS A 5-POINT COMPOSITE FROM BELOW THE BGT LINER. SAMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0.



AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE



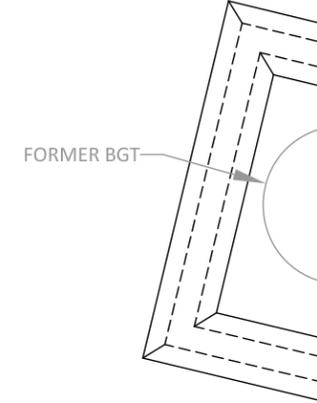
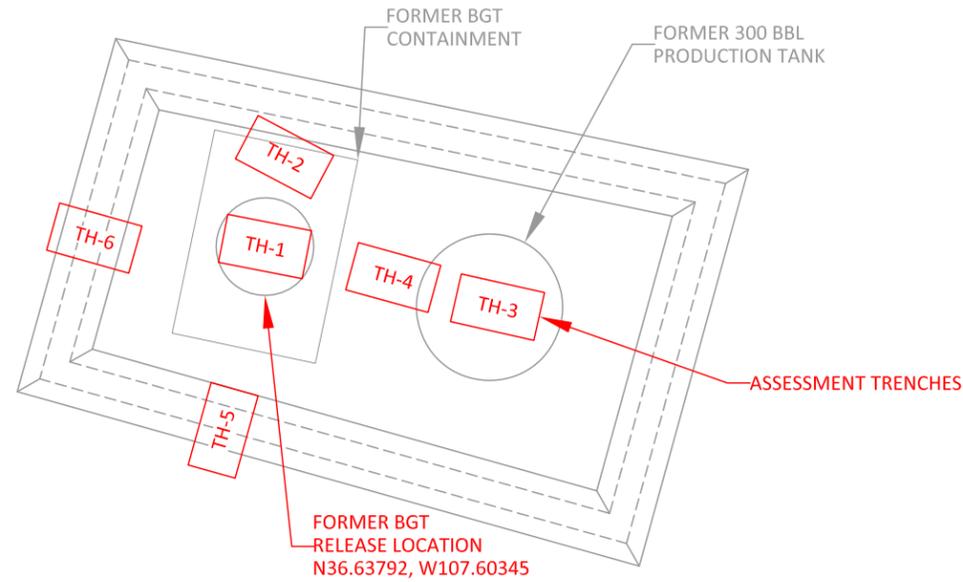
<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013

**FIGURE 2**

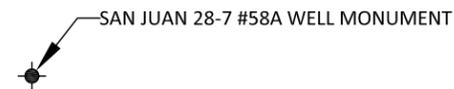
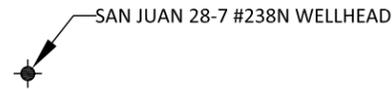
**AERIAL SITE MAP**  
**WEST BELOW GRADE TANK CLOSURE**  
**MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.63766, W107.60315

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>100</b>
TH-1	3/5/13	10	55.7	124
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
TH-3	3/5/13	1.5	1.5	NA
		4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0

NA - NOT ANALYZED



METER HOUSE



**FIGURE 3**

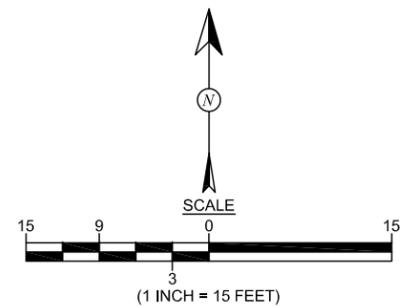
**INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.63769, W107.60322



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> March 5, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> March 5, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> March 5, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> March 5, 2013

**LEGEND**

--- SECONDARY CONTAINMENT BERM



**FIGURE 4**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS  
JUNE 2013**

ConocoPhillips  
SAN JUAN 28-7 #58A  
NW¼ NW¼, SECTION 29, T28N, R7W  
RIO ARriba COUNTY, NEW MEXICO  
N36.63769, W107.60322

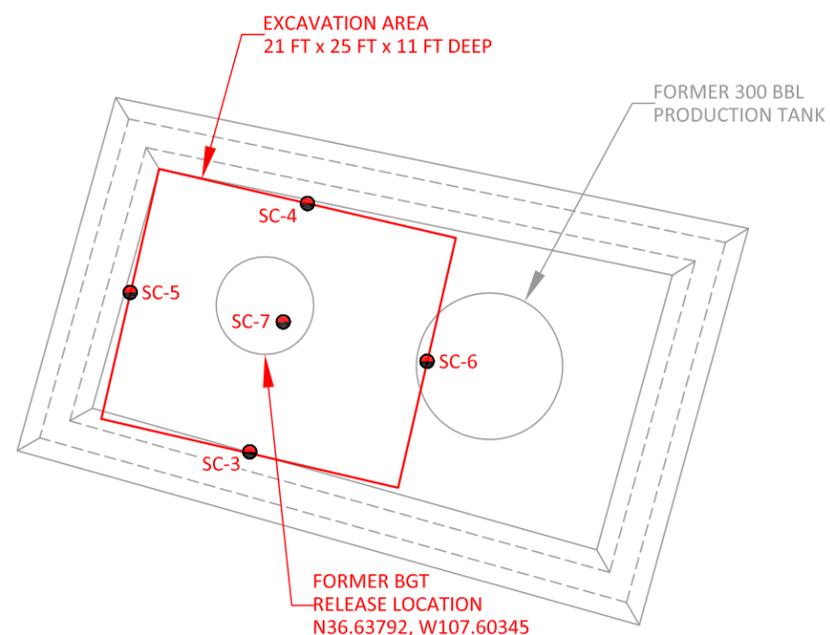


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> June 19, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> June 19, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> June 19, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> June 19, 2013

**LEGEND**

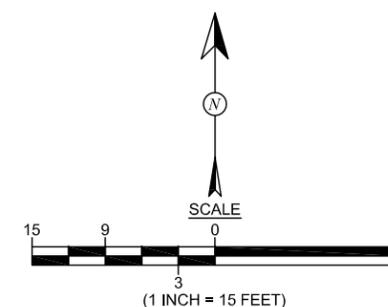
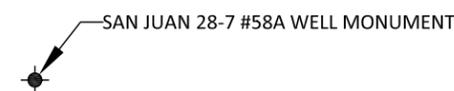
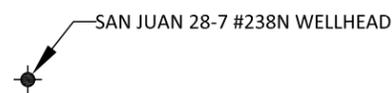
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>100</b>
SC-3	6/18/13	1 to 11	2.1	55.2
SC-4	6/18/13	1 to 11	2.2	82.7
SC-5	6/18/13	1 to 11	2.3	74.4
SC-6	6/18/13	1 to 11	2.5	48.3
SC-7	6/18/13	11	2.5	49.7

ALL SAMPLES WERE COMPOSITE SAMPLES.

METER HOUSE



# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/1/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	3/1/2013	12:45	North	6.1	NA	14:16	<20.0	20.0	1	KC
S-2	3/1/2013	12:48	South	0.2	NA	14:24	20.5	20.0	1	KC
S-3	3/1/2013	12:51	East	2.1	NA	14:27	379	20.0	1	KC
S-4	3/1/2013	12:52	West	1.6	NA	14:30	26.1	20.0	1	KC
S-5	3/1/2013	12:55	Center	1,205	NA	14:34	1,430	20.0	1	KC

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

NA Not Analyzed

DF Dilution Factor

\*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 Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/5/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 10'	3/5/2013	11:18	55.7	12:16	124	20.0	1	HMW
TH-1 @ 12'	3/5/2013	11:21	4.6	12:13	<20.0	20.0	1	HMW
TH-2 @ 5'	3/5/2013	11:25	1.2	12:43	28.9	20.0	1	HMW
TH-2 @ 9'	3/5/2013	11:27	0.6	Not Analyzed for TPH				
TH-3 @ 1.5'	3/5/2013	11:33	1.5	Not Analyzed for TPH				
TH-3 @ 4.5'	3/5/2013	11:35	2.7	Not Analyzed for TPH				
TH-3 @ 8'	3/5/2013	11:40	1.6	Not Analyzed for TPH				
TH-4 @ 4.5'	3/5/2013	11:42	0.5	12:46	<20.0	20.0	1	HMW
TH-4 @ 9'	3/5/2013	11:45	1.2	Not Analyzed for TPH				
TH-5 @ 4'	3/5/2013	11:47	0.2	12:48	<20.0	20.0	1	HMW
TH-5 @ 9.5'	3/5/2013	11:48	0.1	Not Analyzed for TPH				
TH-6 @ 4'	3/5/2013	11:51	0.5	Not Analyzed for TPH				
TH-6 @ 9'	3/5/2013	11:53	2.7	12:50	<20.0	20.0	1	HMW

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit  
 ND Not Detected at the Reporting Limit  
 DF Dilution Factor  
 NA Not Analyzed

Analyst:

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 6/18/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-3	6/18/2013	8:37	South Wall	2.1	9:18	55.2	20.0	1	HMW
SC-4	6/18/2013	8:39	North Wall	2.2	9:21	82.7	20.0	1	HMW
SC-5	6/18/2013	8:41	West Wall	2.3	9:23	74.4	20.0	1	HMW
SC-6	6/18/2013	8:43	East Wall	2.5	9:26	48.3	20.0	1	HMW
SC-7	6/18/2013	8:45	Base	2.5	9:29	49.7	20.0	1	HMW

PQL Practical Quantitation Limit  
 ND Not Detected at the Reporting Limit  
 NA Not Analyzed  
 DF Dilution Factor

Total Petroleum Hydrocarbons - USEPA 418.1  
 \*Field TPH concentrations recorded may be below PQL.

Analyst:

*Heather M. Woods*



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)

April 12, 2013

Debbie Watson

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: San Juan 28-7 #58A

OrderNo.: 1303031

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/2/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued March 05, 2013.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1303031

Date Reported: 4/12/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** ~~SC-2 West Tank~~ SC-1 West Tank -Irc

**Project:** San Juan 28-7 #58A

**Collection Date:** 3/1/2013 1:26:00 PM

**Lab ID:** 1303031-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/2/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	16	10		mg/Kg	1	3/4/2013 6:27:05 PM
Surr: DNOP	101	72.4-120		%REC	1	3/4/2013 6:27:05 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	220	25		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: BFB	301	84-116	S	%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Toluene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Ethylbenzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Xylenes, Total	2.2	0.50		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: 4-Bromofluorobenzene	118	80-120		%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/4/2013 10:52:41 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID	<b>MB-6301</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255320</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-6301</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255321</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	102	90	110			

Sample ID	<b>1303031-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>SC-1 East Tank</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255323</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	93	30	15.00	85.25	51.0	64.4	117			S

Sample ID	<b>1303031-001BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>SC-1 East Tank</b>	Batch ID:	<b>6301</b>	RunNo:	<b>8941</b>					
Prep Date:	<b>3/4/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255324</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	100	30	15.00	85.25	113	64.4	117	9.56	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID <b>MB-6300</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>6300</b>		RunNo: <b>8953</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255779</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		99.0	72.4	120			

Sample ID <b>LCS-6300</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>6300</b>		RunNo: <b>8953</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255781</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	47.4	122			
Surr: DNOP	5.5		5.000		110	72.4	120			

Sample ID <b>1303034-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>		RunNo: <b>8961</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>		SeqNo: <b>257200</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.59	0	94.4	12.6	148			
Surr: DNOP	5.2		4.859		108	72.4	120			

Sample ID <b>1303034-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>		RunNo: <b>8961</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>		SeqNo: <b>257201</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.81	0	88.7	12.6	148	1.82	22.5	
Surr: DNOP	5.5		5.081		108	72.4	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID <b>MB-6293</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R8939</b>		RunNo: <b>8939</b>							
Prep Date: <b>3/1/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255803</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	84	116			

Sample ID <b>LCS-6293</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R8939</b>		RunNo: <b>8939</b>							
Prep Date: <b>3/1/2013</b>	Analysis Date: <b>3/4/2013</b>		SeqNo: <b>255804</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	62.6	136			
Surr: BFB	1300		1000		133	84	116			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

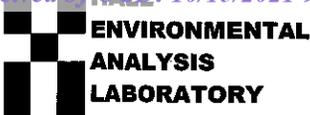
**Project:** San Juan 28-7 #58A

Sample ID	<b>MB-6293</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255857</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>LCS-6293</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255858</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	1.000	0	89.2	80	120			
Toluene	0.89	0.050	1.000	0	88.9	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	88.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



ENVIRONMENTAL ANALYSIS LABORATORY  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: 1303031

Received by/date: AF 03/02/13

Logged By: **Lindsay Mangin** 3/2/2013 12:00:00 PM *Lindsay Mangin*

Completed By: **Lindsay Mangin** 3/4/2013 8:06:26 AM *Lindsay Mangin*

Reviewed By: IS 03/04/2013

### Chain of Custody

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

### Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. VOA vials have zero headspace? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
- 14. Are matrices correctly identified on Chain of Custody? Yes  No
- 15. Is it clear what analyses were requested? Yes  No
- 16. 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)

- 17. 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:	_____		

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			





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)

March 06, 2013

Debbie Watson

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: CoP San Juan 28-7 #58A West Tank

OrderNo.: 1303112

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/5/2013 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. 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. 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.

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1303112

Date Reported: 3/6/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** ~~SC-1~~ SC-2 -lrc

**Project:** CoP San Juan 28-7 #58A West Tank

**Collection Date:** 3/4/2013 11:50:00 AM

**Lab ID:** 1303112-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/5/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	34	10		mg/Kg	1	3/5/2013 1:12:38 PM
Surr: DNOP	103	72.4-120		%REC	1	3/5/2013 1:12:38 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	25		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: BFB	316	84-116	S	%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	3/5/2013 2:16:58 PM
Toluene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Ethylbenzene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Xylenes, Total	1.5	0.50		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/5/2013 11:32:57 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID	<b>MB-6328</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256634</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-6328</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256635</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	1.5	15.00	0	104	90	110			

Sample ID	<b>1303064-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256638</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	4.634	83.5	64.4	117			

Sample ID	<b>1303064-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256639</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	7.5	15.00	4.634	92.2	64.4	117	7.31	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID <b>MB-6302</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256484</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	84	116			

Sample ID <b>LCS-6302</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256485</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	62.6	136			
Surr: BFB	1200		1000		120	84	116			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID <b>MB-6302</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256514</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID <b>LCS-6302</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R8966</b>		RunNo: <b>8966</b>							
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>		SeqNo: <b>256515</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.92	0.050	1.000	0	92.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.5	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits



4901 Hawkins NE  
Albuquerque, NM 87106  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1303112

Received by/date: AF 03/05/13

Logged By: Michelle Garcia 3/5/2013 9:55:00 AM *Michelle Garcia*

Completed By: Michelle Garcia 3/5/2013 10:09:15 AM *Michelle Garcia*

Reviewed By: *[Signature]* 03/05/13

### Chain of Custody

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

### Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. VOA vials have zero headspace? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 14. Are matrices correctly identified on Chain of Custody? Yes  No
- 15. Is it clear what analyses were requested? Yes  No
- 16. 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)

- 17. 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: \_\_\_\_\_

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



SJ 28-7 Unit 58A

3003923983

West BGT Closure

Historic BGT Closure Document clean-up. West BGT was closed 3/1/2013 but C-144 Closure document was never filed. Below is a current aerial shot of the BGT location. Location currently has a AGT.



**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
 Action 56261

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 56261
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

**CONDITIONS**

Created By	Condition	Condition Date
cwhitehead	None	1/10/2022