

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

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

Form C-144
Revised June 6, 2013

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

Pit, Below-Grade Tank, or

Proposed Alternative Method Permit or Closure Plan Application

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

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

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

1. Operator: Burlington Resources Oil & Gas Company, LP OGRID #: 14538

Address: PO BOX 4289, Farmington, NM 87499

Facility or well name: JOHNSTON A 15

API Number: 30-039-20538

OCD Permit Number: _____

U/L or Qtr/Qtr I Section 36 Township 26N Range 6W County: Rio Arriba

Center of Proposed Design: Latitude 36.439970 °N Longitude -107.41253 °W NAD: ☐ 1927 ☒ 1983

Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

OIL CONS. DIV DIST. 3

DEC 01 2016

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

Temporary: ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management

Low Chloride Drilling Fluid ☐ yes ☐ no

☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3. ☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC

Volume: 120 bbl Type of fluid: Produced Water

Tank Construction material: Metal

☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____

Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☒ Other UNSPECIFIED

4. ☐ **Alternative Method:**

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5. **Fencing:** Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

☐ Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify _____

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

- ☐ Screen ☐ Netting ☐ Other _____
- ☐ Monthly inspections (If netting or screening is not physically feasible)

7. **Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

8. **Variances and Exceptions:**

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

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

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

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

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

General siting

Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.

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

☐ Yes ☐ No
☒ NA

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

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

☐ Yes ☐ No
☒ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (**Does not apply to below grade tanks**)

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

☐ Yes ☐ No

Within the area overlying a subsurface mine. (**Does not apply to below grade tanks**)

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

☐ Yes ☐ No

Within an unstable area. (**Does not apply to below grade tanks**)

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain. (**Does not apply to below grade tanks**)

- FEMA map

☐ Yes ☐ No

Below Grade Tanks

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☒ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

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

☐ Yes ☒ No

Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

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

☐ Yes ☐ No

Within 100 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

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

☐ Yes ☐ No

Within 300 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

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

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

10.

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

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

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

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

11.

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

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

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

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

12.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

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

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Quality Control/Quality Assurance Construction and Installation Plan
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, 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	

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

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

☐ Yes ☐ No

Within the area overlying a subsurface mine.

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

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

16.

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

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

17.

Operator Application Certification:

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

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.

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

OCD Representative Signature: Vanessa [Signature] Approval Date: 12/27/2016

Title: Environmental Specialist OCD Permit Number: _____

19.

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

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

☒ Closure Completion Date: 9/12/2016

20.

Closure Method:

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

21.

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

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

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

Operator Closure Certification:

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

Name (Print) Crystal Walker Title: Regulatory Coordinator

Signature:  Date: 12/1/16

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

Burlington Resources Oil & Gas Company, LP
San Juan Basin
Below Grade Tank Closure Report

Lease Name: Johnston A 15

API No.: 30-039-20538

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. BR 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, BR 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. BR 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. BR 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 BR 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. BR will test the soils beneath the below-grade tank to determine whether a release has occurred. BR 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. COPC shall notify the division of its results on form C-141.

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 BR or the division determines that a release has occurred, then BR 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 BR 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:
- Operator's name
 - Location by Unit Letter, Section, Township, and Range. Well name and API number.

Notification is attached.

9. The surface owner shall be notified of BR'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, return receipt requested.

The closure process notification to the landowner was sent via email. (See Attached) (Well located on Federal Land, certified mail is not required for Federal Land per BLM/OCD MOU.)

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 place 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. BR 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. COPC will repeat seeding or planting will be continued until successful vegetative growth occurs.

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)**

Walker, Crystal

From: Walker, Crystal
Sent: Tuesday, March 15, 2016 2:36 PM
To: Cory Smith; Fields, Vanessa, EMNRD; Flaniken, Mike (Mike_Flaniken@blm.gov); Katherina Diemer (kdiemer@blm.gov)
Cc: Farrell, Juanita R; GRP:SJBU Regulatory; Jones, Lisa; SJBU E-Team; 'eskyles@animasenvironmental.com'
Subject: UPDATED: BGT Re-Sample Notification for sampling 3/18

Good afternoon,

The following locations contained below-grade tanks that require re-sampling, which is scheduled for **Friday, March 18th** to begin at 9:00am at the first location and continue to the next. ***ADDED WELLS**

Sampling Order	Name	BGT Latitude	BGT Longitude	Surface Owner
1	Canyon Largo Unit 430	36.397214	-107.547679	FEDERAL
2	Canyon Largo Unit 65	36.432545	-107.450724	FEDERAL
3	Canyon Largo Unit Com 138	36.426228	-107.469793	PRIVATE
4	Sanchez A 3	36.467931	-107.488061	FEDERAL
5	Johnston A 15	36.439970	-107.412488	STATE

Please feel free to contact me at any time if you have any questions or concerns regarding this information.

Thank you,

Crystal Walker
Regulatory Coordinator
ConocoPhillips Lower 48

T: 505-326-9837 | F: 505-599-4086 | M: 505-215-4361 | crystal.walker@cop.com

Visit the new Lower 48 website:
www.conocophillipsuslower48.com

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Burlington Resources Oil & Gas Co.	Contact	Bobby Spearman
Address	3401 East 30 th St, Farmington, NM	Telephone No.	(505)-320-3045
Facility Name	Johnston A 15	Facility Type	Gas well
Surface Owner	State	Mineral Owner	Fed
		API No.	3003920538

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	36	26N	6W	1460	South	800	East	Rio Arriba

Latitude 36.439970 Longitude -107.41253

NATURE OF RELEASE

Type of Release	Hydrocarbon	Volume of Release	Unknown	Volume Recovered	None
Source of Release	BGT	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	Unknown
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				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Historic contamination was encountered after a soil sample was taken on 3-18-16

Describe Area Affected and Cleanup Action Taken.

Historical hydrocarbon impacted soil was found during the BGT closure for the subject well.

September 12, 2016 Excavation was 11' x 11' x 5.5 in depth and 25 yds of soil was transported to Envirotech land farm and 25 yds of clean soil was transported 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:	OIL CONSERVATION DIVISION		
Printed Name: Bobby Spearman	Approved by Environmental Specialist:		
Title: Field Environmental Specialist	Approval Date:	Expiration Date:	
E-mail Address: Robert.E.Spearman@conocophillips.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 11-22-16	Phone: (505) 320-3045		

* Attach Additional Sheets If Necessary



November 14, 2016

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

Via electronic mail to:

SJBUE-Team@ConocoPhillips.com

**RE: Below Grade Tank Closure, Release Assessment, and Final Excavation Report
Johnston A 15
Rio Arriba County, New Mexico**

Dear Ms. Hunter and Mr. Spearman:

On March 18, April 19 and September 12, 2016, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, a release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (COPC) Johnston A 15 located in Rio Arriba County, New Mexico. At the request of the New Mexico Oil Conservation Division (NMOCD), resampling of the location below the former BGT was required to meet all required closure criteria listed in New Mexico Administrative Code (NMAC) 19.15.17.13E. The historic release at the BGT consisted of an unknown quantity of produced water and hydrocarbons. After obtaining the results of the March 2016 sampling event, an initial release assessment was completed on April 19, 2016. The final excavation was completed by COPC contractors while AES was on location on September 19, 2016.

1.0 Site Information

1.1 Location

Site Name – Johnston A 15

Location – NE¼ SE¼, Section 36, T26N, R6W, Rio Arriba County, New Mexico

Well Head Latitude/Longitude – N36.44002, W107.41254

BGT/Release Latitude/Longitude – N36.43997, W107.41248

Land Jurisdiction – Bureau of Land Management

Figure 1. Topographic Site Location Map

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

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

Figure 2. Aerial Site Map, April 2016

1.2 NMOCD Ranking

In accordance with 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:** Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be 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:** Tapicito Creek is approximately 500 feet northwest of the site. (10 points)

1.3 Assessment

AES was initially contacted by Robert Spearman, COPC representative, on March 1, 2016. At the request of the NMOCD, resampling of the location below the former BGT was required to meet all required closure criteria listed in NMAC 19.15.17.13E. On March 18, 2016, Corwin Lameman and Delilah Dougi of AES traveled to the location. Soil sampling consisted of collection of one discrete soil sample from below the former BGT. The sample location is presented on Figure 2.

On April 19, 2016, AES personnel completed the release assessment field work. The assessment included collection and field sampling of 20 soil samples from 4 soil borings (SB-1 through SB-4). Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On September 12, 2016, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples (SC-1 through SC-5) of the walls and base of the excavation. The area of the final excavation measured approximately 11 feet by 11 feet by 5.5 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 21 soil samples (S-1 and SB-1 through SB-4) and 5 composite samples (SC-1 through SC-5) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbon (TPH). One discrete sample (S-1) and all composite

samples (SC-1 through SC-5) collected were submitted for confirmation laboratory analysis.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

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

2.1.2 Total Petroleum Hydrocarbons

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

2.2 Laboratory Analyses

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

S-1 was laboratory analyzed for:

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

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

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

2.3 Field and Laboratory Analytical Results

On April 19, 2016, initial assessment field screening readings for VOCs via OVM were all measured at 0.0 ppm in SB-1 through SB-4. Field TPH concentrations ranged from less than 20.0 mg/kg in SB-1 through SB-4 to 26.8 mg/kg in SB-1.

On September 12, 2016, final excavation field screening results for VOCs via OVM ranged from 0.0 ppm in SC-1, SC-2 and SC-4, up to 10.4 ppm in SC-5. Field TPH concentrations ranged from 23.5 mg/kg in SC-3 up to 79.9 mg/kg in SC-2. Field screening VOC and TPH results are summarized in Table 1 and on Figure 3 and 4. The AES field sampling reports are attached.

Table 1. Soil Field VOCs, TPH, and Chloride Results
 Johnston A 15 BGT Closure, Release Assessment and Final Excavation
 March, April, and September 2016

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCD Action Level*			NE/100	100/100
S-1	3/18/16	4.5	NA	NA
SB-1	4/19/16	2	0.0	NA
		4	0.0	26.8
		6	0.0	<20.0
		8	0.0	25.2
		10	0.0	<20.0
		12	0.0	<20.0
SB-2	4/19/16	4	0.0	NA
		6	0.0	20.4
		8	0.0	NA
		10	0.0	NA
		12	0.0	<20.0
SB-3	4/19/16	4	0.0	NA
		8	0.0	<20.0
		10	0.0	NA
SB-4	4/19/16	12	0.0	<20.0
		4	0.0	NA
		6	0.0	<20.0
		8	0.0	NA
		10	0.0	NA
SC-1	9/12/16	0 to 5.5	0.0	31.3

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCD Action Level*			NE/100	100/100
SC-2	9/12/16	0 to 5.5	0.0	79.9
SC-3	9/12/16	0 to 5.5	0.1	23.5
SC-4	9/12/16	0 to 5.5	0.0	25.0
SC-5	9/12/16	5.5	10.4	78.4

NA – not analyzed

NE – not established

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and *NMAC 19.15.17.13E*.

Laboratory analysis of sample S-1 was used to determine the BTEX, TPH, and chloride concentrations for BGT closure sampling results. Total BTEX concentrations were reported at 477 mg/kg; TPH concentrations were 11,000 mg/kg; and the chloride concentration was less than 30 mg/kg.

Laboratory analyses for SC-1 through SC-5 were used to confirm field sampling results from the final excavation extents. Benzene, total BTEX and TPH-GRO concentrations were reported below laboratory detection limits in all samples (SC-1 through SC-5). Total TPH concentrations (as DRO and MRO) ranged from below the laboratory detection limit in SC-1 and SC-3 up to 224 mg/kg in SC-2. Results are summarized in Table 2 and included on Figure 4. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
Benzene, Total BTEX, Total TPH (418.1), TPH (8015), and Chlorides
Johnston A 15 BGT Closure, Release Assessment, and Final Excavation
March and September 2016

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	Total TPH (418.1) (mg/kg)	TPH GRO (8015) (mg/kg)	TPH DRO (8015) (mg/kg)	TPH MRO (8015) (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level*			0.2/10*	50	100/100*		100/100*		250/NE*
S-1	3/18/16	4.5	<2.4	477	11,000	NA	NA	NA	<30
SC-1	9/12/16	0 to 5.5	<0.024	<0.215	NA	<4.8	<10	<50	NA
SC-2	9/12/16	0 to 5.5	<0.023	<0.207	NA	<4.6	170	54	NA
SC-3	9/12/16	0 to 5.5	<0.023	<0.211	NA	<4.7	<9.6	<48	NA
SC-4	9/12/16	0 to 5.5	<0.024	<0.216	NA	<4.8	68	<48	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	Total TPH (418.1) (mg/kg)	TPH GRO (8015) (mg/kg)	TPH DRO (8015) (mg/kg)	TPH MRO (8015) (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level*			0.2/10*	50	100/100*		100/100*		250/NE*
SC-5	9/12/16	0 to 5.5	<0.024	<0.219	NA	<4.9	25	<50	NA

NA – not analyzed

NE – not established

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and *NMAC 19.15.17.13E*.

3.0 Conclusions and Recommendations

3.1 BGT Closure

On March 18, 2016, AES conducted a BGT closure and assessment of petroleum contaminated soils associated at the Johnston A 15. NMOCD action levels for BGT closures are specified in *NMAC 19.15.17.13E*. BGT closure sampling results for total BTEX and total TPH in March 2016 were above the NMOCD action levels, with S-1 at 477 mg/kg total BTEX and 11,000 mg/kg TPH. Laboratory results for chloride concentrations in S-1 were reported below the NMOCD action level of 250 mg/kg. Based on laboratory concentrations of total BTEX and total TPH, a release was confirmed at the Johnston A 15 location.

3.2 Release Confirmation

Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 30. In April 2016, release assessment field sampling results were all below the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH in SB-1 through SB-5. However, excavation of the release source area identified during the BGT assessment in March 2016 was recommended.

On September 12, 2016, final clearance of the excavation area was completed and measured approximately 11 feet by 11 feet by 5.5 feet in depth. Field sampling results of the excavation extents showed that VOC and field TPH concentrations were all below applicable NMOCD action levels for all four final walls and base of the excavation. Laboratory analytical results reported benzene, total BTEX and GRO concentrations in SC-1 through SC-5 as below NMOCD action levels. TPH concentrations as DRO and MRO were also reported below the applicable NMOCD action levels in all samples, except for SC-2, which had reported concentrations of 170 mg/kg DRO and 54 mg/kg MRO.

Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Johnston A 15, VOCs, benzene, total BTEX, and TPH-GRO concentrations were below the applicable NMOCD action levels for the final sidewalls and base of the excavation, except for SC-2. However, since the residual concentrations in SC-2 are comprised of DRO and MRO components, which are less mobile in the subsurface, and the benzene, total BTEX, and TPH-GRO concentrations in SC-2 were all below laboratory detection limits, no further work is recommended.

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

Sincerely,



David Reese
Environmental Scientist

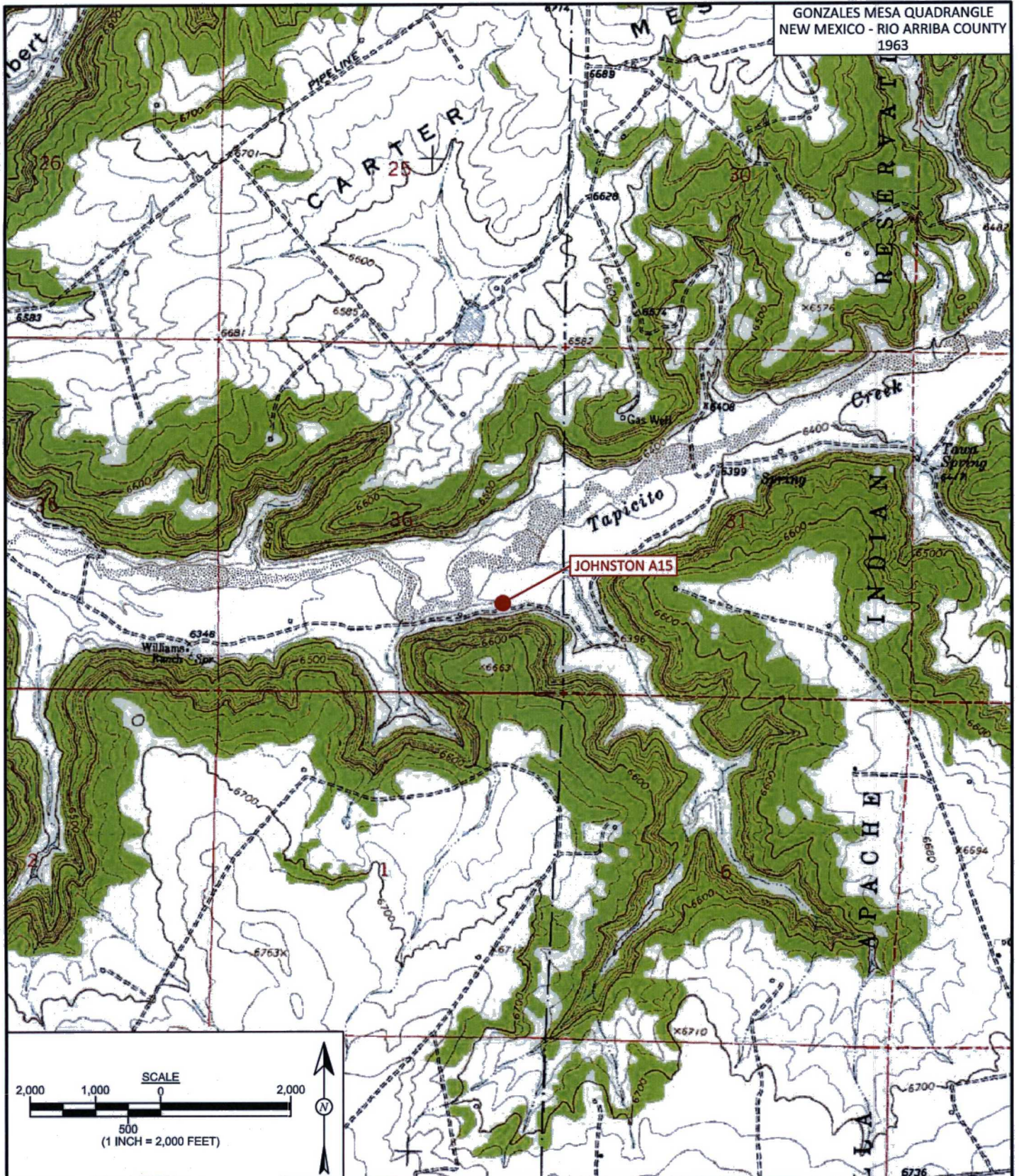


Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, BGT Assessment March 2016
- Figure 3. Release Assessment Sample Locations and Results, April 2016
- Figure 4. Final Excavation Sample Locations and Results, September 2016
- AES Field Sampling Report 041916
- AES Field Sampling Report 091216
- Hall Laboratory Analytical Report 1603A09
- Hall Laboratory Analytical Report 1609689

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DRAWN BY:

C. Lameman

DATE DRAWN:

April 28, 2016

REVISIONS BY:

C. Lameman

DATE REVISED:

April 28, 2016

CHECKED BY:

E. Skyles

DATE CHECKED:

April 28, 2016

APPROVED BY:

E. McNally

DATE APPROVED:

April 28, 2016

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
JOHNSTON A15
NE¼ SE¼, SECTION 36, T26N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.44002, W107.41254

LEGEND

● SAMPLE LOCATIONS

Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH (mg/kg)	Chlorides (mg/kg)
NMOC ACTION LEVEL			10	50	100	250
S-1	3/18/16	4.5	<2.4	477	11,000	<30

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B, 418.1 AND 300.0.

JOHNSTON A15 WELL MONUMENT

S-1

FORMER BELOW GRADE TANK
RELEASE LOCATION
N36.43997, W107.41248

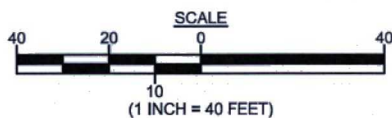
FORMER SEPARATOR

FORMER METER HOUSE

ENTRANCE

ENTRANCE

SERVICE ROAD



AERIAL SOURCE: © 2016 GOOGLE EARTH PRO, AERIAL DATE: MAY 2, 2013.



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DRAWN BY:
C. Lameman

DATE DRAWN:
April 28, 2016

REVISIONS BY:
S. Glasses

DATE REVISED:
November 21, 2016

CHECKED BY:
E. McNally

DATE CHECKED:
November 21, 2016

APPROVED BY:
E. McNally

DATE APPROVED:
November 21, 2016

FIGURE 2

AERIAL SITE MAP
BGT ASSESSMENT MARCH 2016
ConocoPhillips
JOHNSTON A15
NE¼ SE¼, SECTION 36, T26N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.44002, W107.41254

FIGURE 3

RELEASE ASSESSMENT
SAMPLE LOCATIONS AND RESULTS
APRIL 2016
ConocoPhillips
JOHNSTON A15
NE¼ SE¼, SECTION 36, T26N, R6W
RIO ARRIBA COUNTY, NEW MEXICO
N36.44002, W107.41254



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DRAWN BY: C. Lameman	DATE DRAWN: April 20, 2016
REVISIONS BY: S. Glasses	DATE REVISED: November 21, 2016
CHECKED BY: E. McNally	DATE CHECKED: November 21, 2016
APPROVED BY: E. McNally	DATE APPROVED: November 21, 2016

LEGEND

● SOIL BORING LOCATIONS

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL		100	100	
SB-1	4/19/16	2.0	0.0	NA
		4.0	0.0	26.8
		6.0	0.0	<20.0
		8.0	0.0	25.2
		10.0	0.0	<20.0
SB-2	4/19/16	12.0	0.0	<20.0
		4.0	0.0	NA
		6.0	0.0	NA
		8.0	0.0	20.4
		10.0	0.0	NA
SB-3	4/19/16	12.0	0.0	NA
		4.0	0.0	NA
		6.0	0.0	NA
		8.0	0.0	<20.0
		10.0	0.0	NA
SB-4	4/19/16	12.0	0.0	<20.0
		4.0	0.0	NA
		6.0	0.0	NA
		8.0	0.0	NA
		10.0	0.0	NA

NA - NOT ANALYZED

JOHNSTON A15 WELL MONUMENT

FORMER SEPARATOR

FORMER METER HOUSE

SB-1

FORMER BELOW GRADE TANK
RELEASE LOCATION
N36.43997, W107.41248

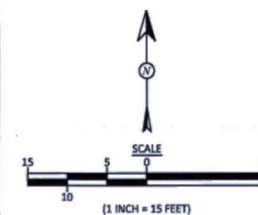
SB-3

SB-4

SB-2

ENTRANCE

ENTRANCE



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	9/12/16	0 to 5.5	0.0	31.3
SC-2	9/12/16	0 to 5.5	0.0	79.9
SC-3	9/12/16	0 to 5.5	0.1	23.5
SC-4	9/12/16	0 to 5.5	0.0	25.0
SC-5	9/12/16	5.5	10.4	78.4

ALL SAMPLES WERE COMPOSITE SAMPLES.

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100		
SC-1	9/12/16	0 to 5.5	<0.024	<0.215	<4.8	<10	<50
SC-2	9/12/16	0 to 5.5	<0.023	<0.207	<4.6	170	54
SC-3	9/12/16	0 to 5.5	<0.023	<0.211	<4.7	<9.6	<48
SC-4	9/12/16	0 to 5.5	<0.024	<0.216	<4.8	68	<48
SC-5	9/12/16	5.5	<0.024	<0.219	<4.9	25	<50

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

JOHNSTON A15 WELL MONUMENT

FORMER SEPARATOR

FORMER METER HOUSE

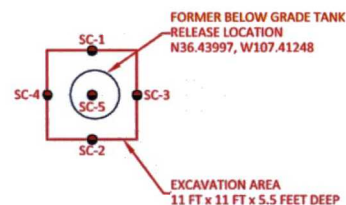


FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
SEPTEMBER 2016
 CanocoPhillips
 JOHNSTON A15
 NE¼, SE¼, SECTION 36, T26N, R6W
 RIO ARriba COUNTY, NEW MEXICO
 N36.44002, W107.41254



animas environmental services
 Farmington, NM • Durango, CO
 animasenvironmental.com

DRAWN BY:
C. Lameman

DATE DRAWN:
April 20, 2016

REVISIONS BY:
S. Glasses

DATE REVISED:
November 18, 2016

CHECKED BY:
V. Giannola

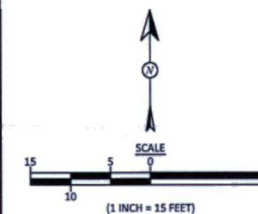
DATE CHECKED:
November 18, 2016

APPROVED BY:
E. McNally

DATE APPROVED:
November 18, 2016

LEGEND

● SOIL BORING LOCATIONS



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Johnston A 15

Date: 4/19/2016

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 2'	4/19/2016	10:35	0.0	Not Analyzed for TPH				
SB-1 @ 4'	4/19/2016	10:41	0.0	26.8	12:37	20.0	1	CL
SB-1 @ 6'	4/19/2016	10:50	0.0	15.7	12:43	20.0	1	CL
SB-1 @ 8'	4/19/2016	10:55	0.0	25.2	12:48	20.0	1	CL
SB-1 @ 10'	4/19/2016	11:10	0.0	15.7	12:53	20.0	1	CL
SB-1 @ 12'	4/19/2016	11:19	0.0	10.9	12:58	20.0	1	CL
SB-2 @ 4'	4/19/2016	11:33	0.0	Not Analyzed for TPH				
SB-2 @ 6'	4/19/2016	11:38	0.0	20.4	13:55	20.0	1	CL
SB-2 @ 8'	4/19/2016	11:43	0.0	Not Analyzed for TPH				
SB-2 @ 10'	4/19/2016	11:49	0.0	Not Analyzed for TPH				
SB-2 @ 12'	4/19/2016	11:58	0.0	12.5	14:00	20.0	1	CL
SB-3 @ 4'	4/19/2016	12:20	0.0	Not Analyzed for TPH				
SB-3 @ 8'	4/19/2016	12:31	0.0	15.7	14:05	20.0	1	CL

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-3 @ 10'	4/19/2016	12:39	0.0	Not Analyzed for TPH				
SB-3 @ 12'	4/19/2016	12:44	0.0	12.5	14:09	20.0	1	CL
SB-4 @ 4'	4/19/2016	13:05	0.0	Not Analyzed for TPH				
SB-4 @ 6'	4/19/2016	13:10	0.0	14.1	14:14	20.0	1	CL
SB-4 @ 8'	4/19/2016	13:13	0.0	Not Analyzed for TPH				
SB-4 @ 10'	4/19/2016	13:20	0.0	Not Analyzed for TPH				
SB-4 @ 12'	4/19/2016	13:28	0.0	9.3	14:20	20.0	1	CL

DF Dilution Factor
NA Not Analyzed
PQL Practical Quantitation Limit

**Field TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Johnston A 15

Date: 9/12/2016

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	9/12/2016	12:32	North Wall	0.0	31.3	13:15	20.0	1	EMS
SC-2	9/12/2016	12:35	South Wall	0.0	79.9	13:18	20.0	1	EMS
SC-3	9/12/2016	12:29	East Wall	0.1	23.5	13:20	20.0	1	EMS
SC-4	9/12/2016	12:44	West Wall	0.0	25.0	13:22	20.0	1	EMS
SC-5	9/12/2016	12:41	Base	10.4	78.4	13:24	20.0	1	EMS

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Emil SkL*



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

March 30, 2016

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

RE: COPC JOHNSTON A 15

OrderNo.: 1603A09

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/19/2016 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

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

Lab Order 1603A09

Date Reported: 3/30/2016

CLIENT: Animas Environmental**Client Sample ID:** S-1**Project:** COPC JOHNSTON A 15**Collection Date:** 3/18/2016 1:06:00 PM**Lab ID:** 1603A09-001**Matrix:** SOIL**Received Date:** 3/19/2016 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	11000	1900		mg/Kg	100	3/23/2016	24342
EPA METHOD 300.0: ANIONS							Analyst: SRM
Chloride	ND	30		mg/Kg	20	3/26/2016 10:50:28 PM	24454
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.4		mg/Kg	100	3/22/2016 5:45:46 PM	24355
Toluene	20	4.7		mg/Kg	100	3/22/2016 5:45:46 PM	24355
Ethylbenzene	17	4.7		mg/Kg	100	3/22/2016 5:45:46 PM	24355
Xylenes, Total	440	9.5		mg/Kg	100	3/22/2016 5:45:46 PM	24355
Surr: 4-Bromofluorobenzene	126	80-120	S	%Rec	100	3/22/2016 5:45:46 PM	24355

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603A09

30-Mar-16

Client: Animas Environmental
Project: COPC JOHNSTON A 15

Sample ID	MB-24454	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	24454	RunNo	33106					
Prep Date	3/26/2016	Analysis Date	3/26/2016	SeqNo	1016110	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24454	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	24454	RunNo	33106					
Prep Date	3/26/2016	Analysis Date	3/26/2016	SeqNo	1016111	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603A09

30-Mar-16

Client: Animas Environmental
Project: COPC JOHNSTON A 15

Sample ID	MB-24342	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	24342	RunNo:	32998					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1012149	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-24342	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	24342	RunNo:	32998					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1012150	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	109	83.4	127			

Sample ID	LCSD-24342	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	24342	RunNo:	32998					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1012151	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	105	83.4	127	3.98	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603A09

30-Mar-16

Client: Animas Environmental
Project: COPC JOHNSTON A 15

Sample ID	MB-24355		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	24355		RunNo:	32985			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011677		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	LCS-24355		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	24355		RunNo:	32985			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011678		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.9	75.3	123			
Toluene	0.89	0.050	1.000	0	88.8	80	124			
Ethylbenzene	0.92	0.050	1.000	0	91.7	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	90.6	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1603A01-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	24355		RunNo:	32985			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011680		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.023	0.9381	0.01203	93.7	71.5	122			
Toluene	0.89	0.047	0.9381	0.01902	92.9	71.2	123			
Ethylbenzene	0.98	0.047	0.9381	0.04876	99.8	75.2	130			
Xylenes, Total	3.4	0.094	2.814	0.4616	106	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.9381		120	80	120			S

Sample ID	1603A01-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	24355		RunNo:	32985			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011681		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9515	0.01203	93.4	71.5	122	1.07	20	
Toluene	0.91	0.048	0.9515	0.01902	93.7	71.2	123	2.25	20	
Ethylbenzene	0.99	0.048	0.9515	0.04876	99.3	75.2	130	0.854	20	
Xylenes, Total	3.4	0.095	2.854	0.4616	103	72.4	131	1.27	20	
Surr: 4-Bromofluorobenzene	1.2		0.9515		123	80	120	0	0	S

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1603A09

RcptNo: 1

Received by/date:

Logged By: Joe Archuleta

3/19/2016 11:00:00 AM

Completed By: Joe Archuleta

3/19/2016 12:08:38 PM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

FULL-TIME TITLE.

☒ Standard ☐ Rush

Project Name:

Project #: COPC JOHNSTON A 15

Project Manager:
E. Skyles

☒ Standard ☐ Level 4 (Full Validation)

Sampler: CL/DTD

On Ice: ☒ Yes ☐ No

Sample Temperature: _____

[illegible]

Remarks: Bill to Conoco Phillips
WO # 21340555
Supervisor: Nelson
USERID: MCINNSK
Area: 9
Ordered by: Bobby Spearman



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

September 19, 2016

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

RE: COPC Johnston A 15

OrderNo.: 1609689

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/13/2016 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1609689

Date Reported: 9/19/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COPC Johnston A 15

Collection Date: 9/12/2016 12:32:00 PM

Lab ID: 1609689-001

Matrix: SOIL

Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/16/2016 3:33:59 PM	27519
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/16/2016 3:33:59 PM	27519
Surr: DNOP	112	70-130		%Rec	1	9/16/2016 3:33:59 PM	27519
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/15/2016 12:50:57 PM	27505
Surr: BFB	78.0	68.3-144		%Rec	1	9/15/2016 12:50:57 PM	27505
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	9/15/2016 12:50:57 PM	27505
Toluene	ND	0.048		mg/Kg	1	9/15/2016 12:50:57 PM	27505
Ethylbenzene	ND	0.048		mg/Kg	1	9/15/2016 12:50:57 PM	27505
Xylenes, Total	ND	0.095		mg/Kg	1	9/15/2016 12:50:57 PM	27505
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	9/15/2016 12:50:57 PM	27505

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609689

Date Reported: 9/19/2016

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COPC Johnston A 15

Collection Date: 9/12/2016 12:35:00 PM

Lab ID: 1609689-002

Matrix: SOIL

Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	170	9.7		mg/Kg	1	9/16/2016 3:55:34 PM	27519
Motor Oil Range Organics (MRO)	54	49		mg/Kg	1	9/16/2016 3:55:34 PM	27519
Surr: DNOP	111	70-130		%Rec	1	9/16/2016 3:55:34 PM	27519
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/15/2016 2:01:31 PM	27505
Surr: BFB	78.7	68.3-144		%Rec	1	9/15/2016 2:01:31 PM	27505
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	9/15/2016 2:01:31 PM	27505
Toluene	ND	0.046		mg/Kg	1	9/15/2016 2:01:31 PM	27505
Ethylbenzene	ND	0.046		mg/Kg	1	9/15/2016 2:01:31 PM	27505
Xylenes, Total	ND	0.092		mg/Kg	1	9/15/2016 2:01:31 PM	27505
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	9/15/2016 2:01:31 PM	27505

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

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

Analytical Report

Lab Order 1609689

Date Reported: 9/19/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: COPC Johnston A 15

Collection Date: 9/12/2016 12:29:00 PM

Lab ID: 1609689-003

Matrix: SOIL

Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/16/2016 4:17:11 PM	27519
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/16/2016 4:17:11 PM	27519
Surr: DNOP	111	70-130		%Rec	1	9/16/2016 4:17:11 PM	27519
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/15/2016 3:12:12 PM	27505
Surr: BFB	77.8	68.3-144		%Rec	1	9/15/2016 3:12:12 PM	27505
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	9/15/2016 3:12:12 PM	27505
Toluene	ND	0.047		mg/Kg	1	9/15/2016 3:12:12 PM	27505
Ethylbenzene	ND	0.047		mg/Kg	1	9/15/2016 3:12:12 PM	27505
Xylenes, Total	ND	0.094		mg/Kg	1	9/15/2016 3:12:12 PM	27505
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	9/15/2016 3:12:12 PM	27505

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609689

Date Reported: 9/19/2016

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: COPC Johnston A 15

Collection Date: 9/12/2016 12:44:00 PM

Lab ID: 1609689-004

Matrix: SOIL

Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	68	9.6		mg/Kg	1	9/16/2016 4:38:48 PM	27519
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/16/2016 4:38:48 PM	27519
Surr: DNOP	114	70-130		%Rec	1	9/16/2016 4:38:48 PM	27519
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/15/2016 3:35:43 PM	27505
Surr: BFB	78.1	68.3-144		%Rec	1	9/15/2016 3:35:43 PM	27505
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	9/15/2016 3:35:43 PM	27505
Toluene	ND	0.048		mg/Kg	1	9/15/2016 3:35:43 PM	27505
Ethylbenzene	ND	0.048		mg/Kg	1	9/15/2016 3:35:43 PM	27505
Xylenes, Total	ND	0.096		mg/Kg	1	9/15/2016 3:35:43 PM	27505
Surr: 4-Bromofluorobenzene	92.3	80-120		%Rec	1	9/15/2016 3:35:43 PM	27505

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609689

Date Reported: 9/19/2016

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: COPC Johnston A 15

Collection Date: 9/12/2016 12:41:00 PM

Lab ID: 1609689-005

Matrix: SOIL

Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	25	9.9		mg/Kg	1	9/16/2016 5:00:34 PM	27519
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/16/2016 5:00:34 PM	27519
Surr: DNOP	113	70-130		%Rec	1	9/16/2016 5:00:34 PM	27519
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2016 3:59:12 PM	27505
Surr: BFB	77.8	68.3-144		%Rec	1	9/15/2016 3:59:12 PM	27505
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	9/15/2016 3:59:12 PM	27505
Toluene	ND	0.049		mg/Kg	1	9/15/2016 3:59:12 PM	27505
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2016 3:59:12 PM	27505
Xylenes, Total	ND	0.097		mg/Kg	1	9/15/2016 3:59:12 PM	27505
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	9/15/2016 3:59:12 PM	27505

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609689

19-Sep-16

Client: Animas Environmental

Project: COPC Johnston A 15

Sample ID	LCS-27519		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	27519		RunNo:	37245				
Prep Date:	9/15/2016		Analysis Date:	9/16/2016		SeqNo:	1156026		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	53	10	50.00	0	106	62.6	124				
Surr: DNOP	5.1		5.000		101	70	130				

Sample ID	MB-27519		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	27519		RunNo:	37245				
Prep Date:	9/15/2016		Analysis Date:	9/16/2016		SeqNo:	1156027		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10		10.00		102	70	130				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609689

19-Sep-16

Client: Animas Environmental

Project: COPC Johnston A 15

Sample ID	MB-27505	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	27505	RunNo:	37219					
Prep Date:	9/14/2016	Analysis Date:	9/15/2016	SeqNo:	1155555	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	800		1000		79.7	68.3	144			

Sample ID	LCS-27505	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	27505	RunNo:	37219					
Prep Date:	9/14/2016	Analysis Date:	9/15/2016	SeqNo:	1155556	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.7	80	120			
Surr: BFB	860		1000		86.2	68.3	144			

Sample ID	1609689-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	27505	RunNo:	37219					
Prep Date:	9/14/2016	Analysis Date:	9/15/2016	SeqNo:	1155562	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	23.85	0	100	59.3	143			
Surr: BFB	870		954.2		91.6	68.3	144			

Sample ID	1609689-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	27505	RunNo:	37219					
Prep Date:	9/14/2016	Analysis Date:	9/15/2016	SeqNo:	1155563	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.6	22.94	0	106	59.3	143	1.57	20	
Surr: BFB	820		917.4		89.7	68.3	144	0	0	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609689

19-Sep-16

Client: Animas Environmental

Project: COPC Johnston A 15

Sample ID	MB-27505		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	27505		RunNo:	37219				
Prep Date:	9/14/2016		Analysis Date:	9/15/2016		SeqNo:	1155569		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.0	80	120			

Sample ID	LCS-27505		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 27505		RunNo: 37219					
Prep Date:	9/14/2016		Analysis Date: 9/15/2016		SeqNo: 1155570		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	0.97	0.025	1.000	0	96.6	75.3	123			
Toluene	0.99	0.050	1.000	0	99.2	80	124			
Ethylbenzene	1.0	0.050	1.000	0	103	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	102	83.9	122			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.6	80	120			

Sample ID	1609689-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-1		Batch ID:	27505		RunNo:	37219				
Prep Date:	9/14/2016		Analysis Date:	9/15/2016		SeqNo:	1155572		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	1.0	0.024	0.9756	0	105	71.5	122			
Toluene	1.1	0.049	0.9756	0	109	71.2	123			
Ethylbenzene	1.1	0.049	0.9756	0	112	75.2	130			
Xylenes, Total	3.3	0.098	2.927	0	111	72.4	131			
Surr: 4-Bromofluorobenzene	0.94		0.9756		96.0	80	120			

Sample ID	1609689-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-1		Batch ID:	27505		RunNo:	37219				
Prep Date:	9/14/2016		Analysis Date:	9/15/2016		SeqNo:	1155573		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	1.0	0.024	0.9524	0	105	71.5	122	2.38	20	
Toluene	1.0	0.048	0.9524	0	108	71.2	123	3.53	20	
Ethylbenzene	1.1	0.048	0.9524	0	111	75.2	130	3.36	20	
Xylenes, Total	3.1	0.095	2.857	0	109	72.4	131	4.93	20	
Surr: 4-Bromofluorobenzene	0.91		0.9524		96.0	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1609689

RcptNo: 1

Received by/date:

Logged By:

Ashley Gallegos

9/13/2016 8:15:00 AM

Completed By:

Ashley Gallegos

9/13/2016 5:59:29 PM

Reviewed By:

09/14/16

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒

No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client:	Animas Environmental Services, LLC	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Mailing Address:	604 W Pinon St. Farmington, NM 87401	Project Name: COPC JOHNSTON A#15
Phone #:	505-564-2281	Project #:
Email or Fax#:	eskyles@animasenvironmental.com	Project Manager: E. Skyles
QA/QC Package:	<input checked="" type="checkbox"/> X Standard <input type="checkbox"/> Level 4 (Full Validation)	Sampler: E. Skyles
Accreditation:	<input type="checkbox"/> NELAP <input type="checkbox"/> Other	On-site: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type)		Sample Temperature: 31.3

☒ Standard ☐ Rush

COPC JOHNSTON A#15

Project #:

Project Manager:

E. Skyles

Sampler: E. Skyles

On Ice ☒ Yes ☐ No

Sample Temperature: 33

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/12/16	1152	Si L Sky C	Christine White	9/12/16	1152
Date:	Time:	Relinquished by:	Received by:	Date	Time
9/12/16	1848	Christine White	Romana Coneja	09/13/16	0815

Remarks: Bill to Conoco Phillips
WO # 21340555
Supervisor: Nelson
USERID: MCINNSK
Area: 9
Ordered by: Lisa Hunter

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



Photo #1	
Client: ConocoPhillips	
Project Name: Johnston A #15	
Rio Arriba County, NM	
Date Photo Taken: March 18, 2016	
BGT GPS and Location: 36.43997, -107.41248 NE¼ SE¼, Section 36, T26N, R6W	
Taken by: Delilah Dougi, AES	Subject: BGT sampling, March 2016 Description: Facing N, overview of entire location.

Photo #2	
Client: ConocoPhillips	
Project Name: Johnston A #15	
Rio Arriba County, NM	
Date Photo Taken: March 18, 2016	
BGT GPS and Location: 36.43997, -107.41248 NE¼ SE¼, Section 36, T26N, R6W	
Taken by: Delilah Dougi, AES	Subject: BGT sampling, March 2016 Description: Facing N, sample location.