<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 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.
12826 39-07652 Proposed Alt	Pit, Below-Grade Tank, or	RECEIVED By OCD at 7:34 am, Mar 26, 2015
Proposed And         Type of action:       Below         Permit       Closu         Modit       Closu         Instructions:       Please be advised that approval of this request does represented to the second	ernative Method Permit or Closure F w grade tank registration it of a pit or proposed alternative method ure of a pit, below-grade tank, or proposed alternati fication to an existing permit/or registration ure plan only submitted for an existing permitted on thod one application (Form C-144) per individual pit, below- not relieve the operator of liability should operations result is of its responsibility to comply with any other applicable go	ive method r non-permitted pit, below-grade tank, -grade tank or alternative request in pollution of surface water, ground water or the
1.		
Operator:         ConocoPhillips Company           Address:         PO BOX 4289, Farmington, NM 8	OGRID #: <u>1</u>	<u>7617</u>
Facility or well name: San Juan 29-6 Unit 20	1722	
	umber:	
	ownship <u>29N</u> Range <u>06W</u> County: <u>Rio Arriba</u>	
	51• <u>N</u> Longitude <u>-107.48878</u> • <u>W</u> NAD: □	1927 🖂 1983
Surface Owner: 🗌 Federal 🗌 State 🛛 Private		
2.		
<b><u>Pit</u>:</b> Subsection F, G or J of 19.15.17.11 N	IMAC	
Temporary: 🗌 Drilling 🗌 Workover	Closed Prior to Close	ure Plan Approval
		.ow Chloride Drilling Fluid 🗌 yes 🗌 no
Lined Unlined Liner type: Thickness	mil 🛛 LLDPE 🗋 HDPE 🔲 PVC 🗍 Other _	
String-Reinforced		
Liner Seams: Welded Factory Other	r Volume:bbl Dime	ensions: Lx Wx D
3.		
Below-grade tank: Subsection I of 19.15.	17.11 NMAC	
Volume: <u>120</u> bbl Typ	be of fluid: Produced Water	
Tank Construction material: <u>Metal</u>		
	Visible sidewalls, liner, 6-inch lift and automatic o	
	ewalls only  Other	
Liner type: Thickness45	mil  HDPE  PVC  Mother <u>LLDPE</u>	
<ul> <li><u>Alternative Method</u>:</li> <li>Submittal of an exception request is required.</li> </ul>	Exceptions must be submitted to the Santa Fe Environme	ental Bureau office for consideration of approval.
5. Fencing: Subsection D of 19.15.17.11 NMAC	(Applies to permanent pits, temporary pits, and below-g	rade tanks)
Chain link, six feet in height, two strands of	barbed wire at top (Required if located within 1000 feet	
<i>institution or church)</i> Four foot height, four strands of barbed wire	e evenly spaced between one and four feet	
Alternate. Please specify		

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)

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

#### 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.

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	□ 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
<ul> <li>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)</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within the area overlying a subsurface mine. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	🗌 Yes 🗌 No
Within a 100-year floodplain. (Does not apply to below grade tanks) <ul> <li>FEMA map</li> </ul>	🗌 Yes 🗌 No
Below Grade Tanks	
<ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🛛 No
<ul> <li>Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🖾 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
<ul> <li>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.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	🗋 Yes 🗌 No
<ul> <li>application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	
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

<ul> <li>Within 100 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Temporary Pit Non-low chloride drilling fluid	
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>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;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🗌 No
<ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 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	
<ul> <li>lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	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
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
10. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N	NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached.	cuments are
<ul> <li>Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC</li> <li>Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.1</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> </ul>	9 NMAC
<ul> <li>Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> </ul>	
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC	.15.17.9 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 dot 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 and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC	9.15.17.9 NMAC
<ul> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Previously Approved Design (attach copy of design) API Number: or Permit Number:</li> </ul>	

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 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            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	documents are
<ul> <li>Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> <li>Emergency Response Plan</li> <li>Oil Field Waste Stream Characterization</li> <li>Monitoring and Inspection Plan</li> <li>Erosion Control Plan</li> <li>Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>	
<ul> <li>13.</li> <li>Proposed Closure: 19.15.17.13 NMAC</li> <li>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</li> <li>Type: Drilling Workover Emergency Cavitation P&amp;A Permanent Pit Below-grade Tank Multi-well F</li> </ul>	luid Management Dit
Type:       Drining       Workover       Emergency       Cavitation       P&A       Permanent Pit       Below-grade Tank       Multi-went P         Alternative       Alternative       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       Method       Method       On-site Trench Burial       On-site Closure Method	
<ul> <li><sup>14.</sup> Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached.</li> <li>△ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>△ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC</li> <li>△ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)</li> <li>△ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>△ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>△ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	
<sup>15.</sup> 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 sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. F 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ NA
<ul> <li>Ground water is more than 100 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	☐ Yes ☐ No ☐ NA
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🔲 Yes 🗋 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🗋 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 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
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

- Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 Yes 🗌 No
<ul> <li>Within the area overlying a subsurface mine.</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	🗋 Yes 🗌 No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	🗋 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 plant of the box, that the documents are attached.         by a check mark in the box, that the documents are attached.         Construction/Design Plan of Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC         Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.13 NMAC         Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 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 canntal 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	.11 NMAC 15.17.11 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 belined with the information submitted with this application.         Name (Print):	
Signature: Date:	
e-mail address: Telephone:	····
18. <b>OCD Approval:</b> Permit Application (including closure plan) X Closure Plan (only).  OCD Conditions (see attachment)	
18. <b>OCD Approval:</b> Permit Application (including closure plan) X Closure Plan (only).  OCD Conditions (see attachment)	
18. <u>OCD Approval</u> : Permit Application (including closure plan) I Closure Plan (only) OCD Conditions (see attachment)	
18.       OCD Approval:       Permit Application (including closure plan)       Image: Closure Plan (only)       OCD Conditions (see attachment)         OCD Representative Signature:	Jun 09, 2015
18.       OCD Approval:       Permit Application (including closure plan)       Image: Closure Plan (only)       OCD Conditions (see attachment)         OCD Representative Signature:	Jun 09, 2015 g the closure report. t complete this

#### 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): Denise Journey Title: Staff Regulatory Technician

Signature: 0 enisi

Date: 03/20/2015

e-mail address: Denise.Journey@conocophillips.com Telephone: (505) 326-9556

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

#### Lease Name: San Juan 29-6 Unit 20 API No.: 30-039-07652

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:

- 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.
- 2. The below-grade tank referenced above was permitted and closed within 60 days of cessation of the below-grade tanks operation.
- 3. 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.

4. 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.

5. 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.

6. BR will test the soils beneath the below-grade tank to determine whether a release has occurred. COPC 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.

7. A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Subsection B of 19.15.17.13 (B)(1)(b). (Sample results attached).

Components	Tests Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
ТРН	EPA SW-846 418.1	100
Chlorides	EPA 300.1	250

8. 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 not determined for the above referenced well.

9. 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.

- 10. 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 missing due to employee turnovers. ConocoPhillips has reviewed our internal processes and has updated them to include the required 72 hour notification.

11. 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 not found. COPC was not aware that the original notification sent at the time of Permitting was not the only closure notification required. ConocoPhillips has reviewed our internal processes and has updated them to include the required 72 hour notification.

12. 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. 13. 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 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.

14. 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.

- 15. 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)

Closure Documentation was not submitted within the 60 day requirement due to employee turnovers. ConocoPhillips has reviewed our internal processes and has updated them to ensure closure documentation is submitted with the 60 day time frame.



September 20, 2012

Crystal Tafoya ConocoPhillips San Juan Business Unit Office 214-5 5525 Hwy 64 Farmington, New Mexico 87401

624 E. Comanche

www.animasenvironmental.com

Durango, Colorado 970-403-3274

505-564-2281

Farmington, NM 87401

#### RE: Below Grade Tank Closure Report San Juan 29-6 #20 Rio Arriba County, New Mexico

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 29-6 #20, located in Rio Arriba County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

#### 1.0 Site Information

#### 1.1 Location

Site Name – San Juan 29-6 #20 Legal Description - NE¼ SW¼, Section 8, T29N, R6W, Rio Arriba County, New Mexico Well Latitude/Longitude – N36.73755 and W107.48900, respectively BGT Latitude/Longitude – N36.73751 and W107.48878, respectively Land Jurisdiction - Private Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, August 2012

#### 1.2 NMOCD Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) the release location was assigned a ranking score to establish release action levels. The ranking score was obtained in part by reviewing available records of nearby oil/gas wells using the NMOCD online database. A Cathodic report dated June 1993 for the San Juan 29-6 #20 reported depth to groundwater at 230 feet below ground surface (bgs). Additionally, the New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water

Crystal Tafoya SJ 29-6 #20 BGT Closure Report September 20, 2012 Page 20f 5

wells, and no registered water wells were reported to be located within 1,000 feet of the location.

Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (<u>http://ford.nmt.edu/react/project.html</u>) were accessed to aid in the identification of downgradient surface water. An unnamed wash is located approximately 700 feet south of the release location. Based on this information, the release location was assessed a ranking score of 10.

### 1.3 BGT Closure Assessment

AES was initially contacted by Jess Henson, CoP representative, on August 16, 2012, and on August 17, 2012, Tom Long and Corwin Lameman of AES mobilized to the location. AES personnel collected six soil samples from the below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

#### 2.0 Soil Sampling

On August 16, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.2 feet below the former BGT for field screening of volatile organic compounds (VOCs), total petroleum hydrocarbon (TPH), and chlorides. Soil sample SC-1 was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

## 2.1 Field Screening

#### 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors with a photoionization 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.

Crystal Tafoya SJ 29-6 #20 BGT Closure Report September 20, 2012 Page 3of 5

#### 2.1.3 Chlorides

Soil samples were field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

### 22 Laboratory Analyses

The composite soil sample SC-1 collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- Chloride per USEPA Method 300.0.

### 23 Field and Laboratory Analytical Results

Field screening for VOCs via OVM showed readings ranging from 6.0 ppm in S-3 up to 73.6 ppm in S-1. Field TPH concentrations ranged from 87.4 mg/kg in S-4 and S-5 up to 100 mg/kg in S-1. The field chloride concentration in SC-1 was 60 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action	evel (NMAC 19.	15.17.13E)		100	250
S-1	08/17/12	0.2	73.6	100	NA
S-2	08/17/12	0.2	14.2	96.3	NA
S-3	08/17/12	0.2	6.0	79.9	NA
S-4	08/17/12	0.2	40.1	87.4	NA
S-5	08/17/12	0.2	48.1	87.4	NA
SC-1	08/17/12	0.2	20.3	NA	60

Table 1.	Soil Field Screening VOCs, TPH, and Chloride Results
	San Juan 29-6 #20 BGT Closure August 2012

NA = not analyzed

Crystal Tafoya SJ 29-6 #20 BGT Closure Report September 20, 2012 Page 4of 5

Laboratory analytical results showed that the benzene and total BTEX concentrations in SC-1 were less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations were less than 5.0 mg/kg GRO and less than 9.8 mg/kg DRO. The laboratory chloride concentration was below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action	Level (NMAC 19.15	.17.13E)	0.2	50	1	00	250
SC-1	8/17/12	0.2	<0.050	<0.25	<5.0	<9.8	<30

Table 2. Soil Laboratory Analytical Results, San Juan 29-6 #20 BGT Closure, August 2012

## 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene concentrations in SC-1 were below the laboratory detection limit of 0.050 mg/kg, and total BTEX concentrations were below the NMOCD action level of 50 mg/kg. Field TPH was reported below the NMOCD action level of 100 mg/kg in all samples, except S-1 with 100 mg/kg. However, laboratory analytical results for TPH as GRO/DRO were reported below laboratory detection limits. Chloride concentrations for SC-1 were below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, BTEX, TPH, and chlorides, no further work is recommended.

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

Sincerely,

pin lum

Corwin Lameman, Geologist Intern

Elizabeth V Mervely

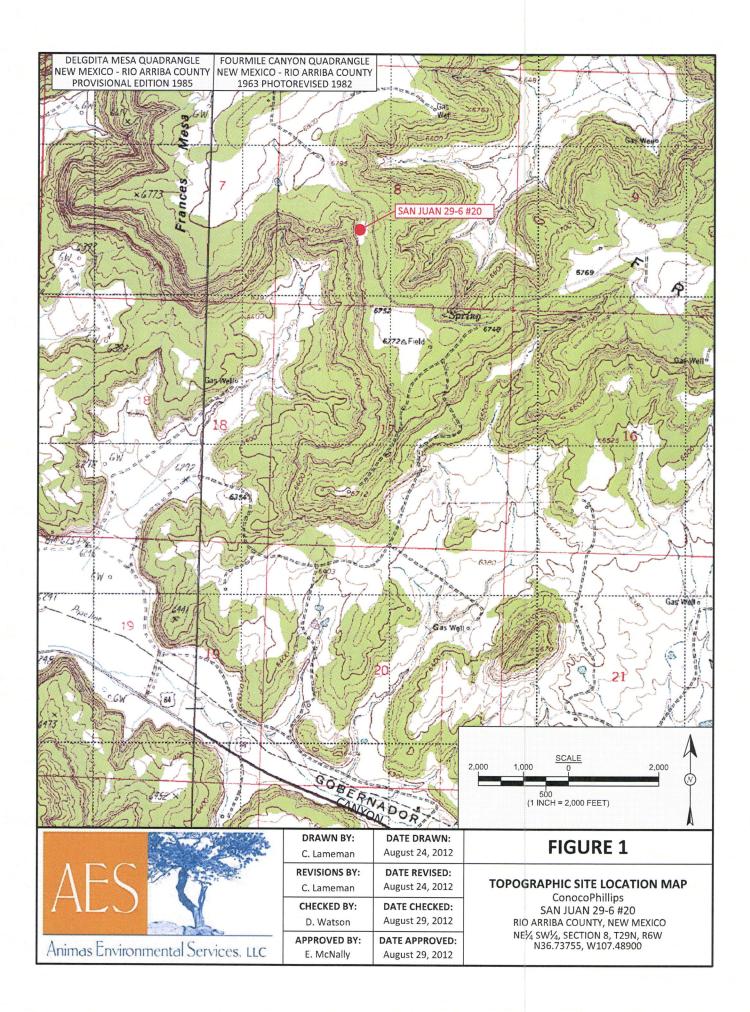
Elizabeth McNally, P.E.

Crystal Tafoya SJ 29-6 #20 BGT Closure Report September 20, 2012 Page 5of 5

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, August 2012 AES Field Screening Report 081712 Hall Analytical Report 1208802

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Sample ID	Date	PID (ppm)	(mg/kg)	Chlorides (mg/kg)			Laborato	ry Analytica			r	100
NMOC	D ACTION LEVEL	(ppm) 	100	250	Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)	
S-1	8/17/12		100	NA	NMOCD ACTI	ON LEVEL	0.2	50		00	250	
S-2	8/17/12		96.3	NA	SC-1	8/17/12	<0.050	<0.25	<5.0	<9.8	<30	
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**AES Field Screening Report** 

Animas Environmental Services, LLC 

www.animasenvironmental.com

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

Project Location: San Juan 29-6 #20

Date: 8/17/2012

Matrix: Soil

Client: ConocoPhillips

Durango, Colorado 970-403-3274

		Time of			Eiold	ניטא דפח				Har
	Collection	Sample	Sample	MVO	Chloride	Analysis	Field TPH*	ТРН РОС		Analysts
Sample ID	Date	Collection	Location	(ppm)	(mg/kg)	Time	(mg/kg)	(mg/kg)	DF	Initials
S-1	8/17/2012	13:02	North	73.6	NA	16:19	100	20.0	ч	บี
S-2	8/17/2012	13:03	South	14.2	NA	16:23	96.3	20.0	1	ซ
S-3	8/17/2012	13:04	East	6.0	NA	16:27	79.9	20.0	1	כר
S-4	8/17/2012	13:05	West	40.1	NA	16:31	87.4	20.0	Ч	บี
S-5	8/17/2012	13:06	Center	48.0	NA	16:32	87.4	20.0	1	ษ
SC-1	8/17/2012	13:13	Composite	NA	60		Not and	Not analyzed for Field TPH.	ТРН.	

Total Petroleum Hydrocarbons - USEPA 418.1 Analyst:

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with

Silver Nitrate

\*Field TPH concentrations recorded may be below PQL.

Not Detected at the Reporting Limit

**Dilution Factor** 

**Practical Quantitation Limit** 

PQL QN Ы

AN

Not Analyzed

Report Finalized:08/17/12



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

August 21, 2012

Debbie Watson

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

RE: CoP San Juan 29-6 #20

OrderNo.: 1208802

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/18/2012 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 <u>www.hallenvironmental.com</u> 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,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.						
	(	Client Sample	e ID: SC-1			
		<b>Collection D</b>	Date: 8/17/20	012 1:22:00 PM		
Matrix:	MEOH (SOIL)					
Result	RL Qual	Units	DF	Date Analyzed		
RGANICS				Analyst: JMP		
ND	9.8	mg/Kg	1	8/19/2012 11:31:33 AM		
122	77.6-140	%REC	1	8/19/2012 11:31:33 AM		
E				Analyst: RAA		
ND	5.0	mg/Kg	1	8/18/2012 3:20:59 PM		
97.1	84-116	%REC	1	8/18/2012 3:20:59 PM		
				Analyst: RAA		
ND	0.050	mg/Kg	1	8/18/2012 3:20:59 PM		
ND	0.050	mg/Kg	1	8/18/2012 3:20:59 PM		
ND	0.050	mg/Kg	1	8/18/2012 3:20:59 PM		
ND	0.10	mg/Kg	1	8/18/2012 3:20:59 PM		
101	80-120	%REC	1	8/18/2012 3:20:59 PM		
				Analyst: SRM		
ND	30	mg/Kg	20	8/20/2012 10:19:11 AM		
	Matrix: Result RGANICS ND 122 ND 97.1 ND ND ND ND ND ND 101	Matrix:         MEOH (SOIL)           Result         RL         Qual           RGANICS         9.8         122         77.6-140           ND         9.8         122         77.6-140           ND         5.0         97.1         84-116           ND         0.050         ND         0.050           ND         0.050         ND         0.050           ND         0.10         101         80-120	Client Sample           Collection E           Matrix:         MEOH (SOIL)         Received E           Result         RL         Qual         Units           RGANICS         MD         9.8         mg/Kg           122         77.6-140         %REC           ND         5.0         mg/Kg           97.1         84-116         %REC           ND         0.050         mg/Kg           ND         0.10         mg/Kg           ND         0.10         mg/Kg           ND         0.10         mg/Kg           ND         0.10         mg/Kg	Client Sample ID: SC-1           Collection Date: 8/17/20           Matrix: MEOH (SOIL)         Received Date: 8/18/20           Result         RL         Qual         Units         DF           RGANICS         ND         9.8         mg/Kg         1           ND         9.8         mg/Kg         1           122         77.6-140         %REC         1           ND         5.0         mg/Kg         1           97.1         84-116         %REC         1           ND         0.050         mg/Kg         1           ND         0.050         mg/Kg         1           ND         0.050         mg/Kg         1           ND         0.050         mg/Kg         1           ND         0.10         mg/Kg         1 <tr< td=""></tr<>		

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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting L
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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**Analytical Report** 

or analysis exceeded

Limit

RL Reporting Detection Limit U Samples with CalcVal < MDL

Page 1 of 5

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

### Client: Animas Environmental Services

Project: CoP San Juan 29-6 #20

Sample ID	1208662-002AMS	SampT	ampType: MS TestCode: EPA Method 300.0: Anions								
Client ID:	BatchQC	Batch	ID: 34	: 3400 RunNo: 4977							
Prep Date:	te: 8/20/2012 Analysis Date: 8/20/2012 SeqNo: 140823 Units: mg/Kg										
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		53	7.5	15.00	37.51	105	64.4	117			
Sample ID	1208662-002AMSE	SampT	pe: MS	SD.	Tes	tCode: EF	PA Method	300.0: Anion	5		<u></u>
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Client ID: Prep Date:	BatchQC 8/20/2012	Batch Analysis Da				RunNo: <b>4</b> 9 SeqNo: <b>1</b> 4		Units: <b>mg/K</b>	g		
				20/2012				Units: <b>mg/K</b> HighLimit	g %RPD	RPDLimit	Qual

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limitsR RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

21-Aug-12

WO#: 1208802

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Animas Environmental Services

CoP San Juan 29-6 #20

**Project:** 

Sample ID	MB-3395	SampTy	/pe: ME	BLK	Tes	tCode: E	PA Method	8015B: Dies	el Range (	Organics	
Client ID: F	PBS	Batch	ID: 339	95	F	RunNo: 4952					
Prep Date:	8/18/2012	Analysis Da	nte: <b>8/</b>	19/2012	S	eqNo: 1	40029	Units: mg/M	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	rganics (DRO)	ND	10								
Surr: DNOP		12		10.00		121	77.6	140			
Sample ID LCS-3395 SampType: LCS TestCode: EPA Method 8015B: Diesel Range Organ									Organics		
Client ID: L	LCSS	Batch ID: 3395				tunNo: 4	952				
Prep Date:	8/18/2012	Analysis Da	ite: <b>8/</b> '	19/2012	S	eqNo: 1	40030	Units: mg/k	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range On	rganics (DRO)	36	10	50.00	0	72.0	52.6	130			
Surr: DNOP		4.7	_	5.000		93.6	77.6	140	_		
Sample ID 1	1208802-001AMS	Samp⊺y	pe: MS		Test				Don no (		
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Client ID: S	SC-1	Batch	ID: 339			unNo: 4		SUISE: Dies	er Kange (	Drganics	
Client ID: S		Batch Analysis Da		95	F		952	Units: mg/k	Ū	Organics	
				<del>9</del> 5 19/2012	F	unNo: 4	952		Ū	<b>Prganics</b> RPDLimit	Qual
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Prep Date: Analyte	8/18/2012	Analysis Da Result	ite: <b>8/</b> ' PQL	95 19/2012 SPK value	R S SPK Ref Val	unNo: 4 eqNo: 1 %REC	952 40032 LowLimit	Units: <b>mg/K</b> HighLimit	(g		Qual
Prep Date: Analyte Diesel Range Or Surr: DNOP	8/18/2012	Analysis Da Result 35 4.8	ite: <b>8/</b> PQL 9.8	95 19/2012 SPK value 49.07 4.907	F S SPK Ref Val 0	unNo: 4 eqNo: 1 %REC 71.5 97.0	952 40032 LowLimit 57.2 77.6	Units: <b>mg/K</b> HighLimit 146	(g %RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range Or Surr: DNOP	8/18/2012 rganics (DRO) 1208802-001AMSD	Analysis Da Result 35 4.8 SampTy	ite: <b>8/</b> PQL 9.8	95 19/2012 SPK value 49.07 4.907	R S SPK Ref Val 0 Test	unNo: 4 eqNo: 1 %REC 71.5 97.0	952 40032 LowLimit 57.2 77.6 PA Method	Units: <b>mg/K</b> HighLimit 146 140	(g %RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range On Surr: DNOP Sample ID 1	8/18/2012 rganics (DRO) 1208802-001AMSD SC-1	Analysis Da Result 35 4.8 SampTy	nte: 8/* PQL 9.8 pe: MS ID: 339	95 19/2012 SPK value 49.07 4.907 5D 95	F S SPK Ref Val 0 Tesi F	eqNo: 4 %REC 71.5 97.0 Code: El	952 40032 LowLimit 57.2 77.6 PA Method 952	Units: <b>mg/K</b> HighLimit 146 140	(g %RPD el Range (	RPDLimit	Qual
Prep Date: Analyte Diesel Range Or Sur: DNOP Sample ID 1 Client ID: 5	8/18/2012 rganics (DRO) 1208802-001AMSD SC-1	Analysis Da Result 35 4.8 SampTy Batch	nte: 8/* PQL 9.8 pe: MS ID: 339	95 19/2012 SPK value 49.07 4.907 5D 95 19/2012	F S SPK Ref Val 0 Tesi F	kunNo: 4 keqNo: 1 %REC 71.5 97.0 Code: El kunNo: 4 keqNo: 1	952 40032 LowLimit 57.2 77.6 PA Method 952	Units: mg/K HighLimit 146 140 8015B: Diese	(g %RPD el Range (	RPDLimit	Qual
Prep Date: Analyte Diesel Range On Surr: DNOP Sample ID 1 Client ID: S Prep Date:	8/18/2012 rganics (DRO) 1208802-001AMSD SC-1 8/18/2012	Analysis Da Result 35 4.8 SampTy Batch Analysis Da	tte: 8/* PQL 9.8 pe: MS ID: 339 tte: 8/*	95 19/2012 SPK value 49.07 4.907 5D 95 19/2012	F SPK Ref Val 0 Tesi F S	kunNo: 4 keqNo: 1 %REC 71.5 97.0 Code: El kunNo: 4 keqNo: 1	952 40032 LowLimit 57.2 77.6 PA Method 952 40033	Units: mg/K HighLimit 146 140 8015B: Diese Units: mg/K	(g %RPD 	RPDLimit	

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

**Client:** Animas Environmental Services **Project:** 

CoP San Juan 29-6 #20

Client ID:         PBS         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139979         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Sample ID         LCS-         SampType:         LCS         TestCode:         EPA Method 8015B:         Gasoline Range           Client ID:         LCSs         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139983         Units:         mg/Kg           Analyte         Result         POL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Basoline Range Organics (GRO)         23         5.0         25.00         0         93.8         74         117           Surr: BFB         1000         1000         100         84         116         116         116           Sample ID         1208728-0014 MS </th <th></th>												
Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139979         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK value         SPK value         SPK value         SeqNo:         139979         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK value         SPK value         SeqNo:         139979         Units:         mg/Kg           Sample ID         LCS-3385         SampType:         LCS         TestCode:         EPA Method 8015B:         Gasoline Range           Client ID:         LCSS         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139983         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           asoline Range Organics (GRO)         23         5.0         25.00         0         93.8         74         117           Surr: BFB         1000         1000         1000         84         116         <	Sample ID MB-3385	SampTyp	e: MB	LK	Tes	tCode: E	PA Method	8015B: Gase	oline Rang	e		
Analyte       Result       PQL       SPK ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Surr: BFB       970       1000       97.0       84       116	Client ID: PBS	Batch ID	D: 338	5	F	RunNo: <b>4951</b>						
Basoline Range Organics (GRO)         ND         5.0         Surr. BFB         970         1000         97.0         84         116           Sample ID         LCS-3385         SampType: LCS         TestCode: EPA Method 8015B: Gasoline Range         Image: Comparison of the state of the st	Prep Date: 8/17/2012	Analysis Date	e: <b>8/1</b>	18/2012	S	SeqNo: 1	39979	Units: mg/k	٢g			
Surr. BFB         970         1000         97.0         84         116           Sample ID         LCS-3385         SampType: LCS         TestCode:         EPA Method 8015E:         Gasoline Range           Client ID:         LCSS         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139983         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           asoline Range Organics (GRO)         23         5.0         25.00         0         93.8         74         117           Surr. BFB         1000         1000         100         84         116         100         100         84         116           Sample ID         1208728-001A MS         SampType: MS         TestCode:         EPA Method 8015E:         Gasoline Range         116         116         116         116         116         116         116         116         116         116         116         116         116         116         116         116         116         116 </td <td>Analyte</td> <td>Result F</td> <td>PQL</td> <td>SPK value</td> <td>SPK Ref Val</td> <td>%REC</td> <td>LowLimit</td> <td>HighLimit</td> <td>%RPD</td> <td>RPDLimit</td> <td>Qual</td>	Analyte	Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sample ID         LCS         TestCode:         EPA Method 8015B:         Gasoline Range           Client ID:         LCSS         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139983         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           iasoline Range Organics (GRO)         23         5.0         25.00         0         93.8         74         117           Surr: BFB         1000         1000         100         84         116         116           Sample ID         1208728-001A MS         SampType:         MS         TestCode:         EPA Method 8015B:         Gasoline Range           Client ID:         BatchQC         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139984         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLi	Gasoline Range Organics (GRO)	ND	5.0									
Client ID:       LCSS       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139983       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         assoline Range Organics (GRO)       23       5.0       25.00       0       93.8       74       117         Surr: BFB       1000       1000       100       84       116         Sample ID       1208728-001A MS       SampType: MS       TestCode: EPA Method 8015B: Gasoline Range         Client ID:       Batch QC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130       30       30       30////////////////////////////////////	Sun: BFB	970		1000		97.0	84	116				
Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139983       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         assoline Range Organics (GR0)       23       5.0       25.00       0       93.8       74       117         Sum BFB       1000       1000       1000       84       116       900       900       84       116         Sample ID       1208728-001A MS       SampType:       MS       TestCode:       EPA Method 8015B:       Gasoline Range         Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130         Sum BFB       950       974.7       97.7       84 <td colspan="11">Sample ID LCS-3385 SampType: LCS TestCode: EPA Method 8015B: Gasoline Range</td>	Sample ID LCS-3385 SampType: LCS TestCode: EPA Method 8015B: Gasoline Range											
Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Sample ID       1000       1000       100       84       117         Surr: BFB       1000       1000       100       84       116         Sample ID       1208728-001A MS       SampType: MS       TestCode:       EPA Method 8015B: Gasoline Range         Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130         Surr: BFB       950       974.7       97.7       84       116       116         Sample ID       1208728-001A MSD       SampType:       MSD       TestCode:       EPA Method 8015B:       Gasoline Range         Client ID:       BatchQC       Batch ID:       3385 <td< td=""><td>Client ID: LCSS</td><td>Batch ID</td><td>D: 338</td><td>5</td><td>F</td><td>RunNo: 4</td><td>951</td><td></td><td>-</td><td></td><td></td></td<>	Client ID: LCSS	Batch ID	D: 338	5	F	RunNo: 4	951		-			
Basoline Range Organics (GRO)         23         5.0         25.00         0         93.8         74         117           Surr: BFB         1000         1000         100         84         116         100         100         84         116           Sample ID         1208728-001A MS         SampType: MS         TestCode: EPA Method 8015B: Gasoline Range         Editation         100         84         116           Sample ID         1208728-001A MS         SampType: MS         TestCode: EPA Method 8015B: Gasoline Range         100         100         84         116         100         117         100	Prep Date: 8/17/2012	2012 Analysis Date: 8/18/2012 SeqNo: 139983						Units: mg/k	۲g			
Surr: BFB         1000         1000         100         84         116           Sample ID         1208728-001A MS         SampType: MS         TestCode: EPA Method 8015B: Gasoline Range           Client ID:         Batch QC         Batch ID:         3385         RunNo:         4951           Prep Date:         8/17/2012         Analysis Date:         8/18/2012         SeqNo:         139984         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           asoline Range Organics (GRO)         20         4.9         24.37         0         80.1         70         130           Surr: BFB         950         974.7         97.7         84         116         100           Sample ID         1208728-001A MSD         SampType: MSD         TestCode: EPA Method 8015B: Gasoline Range         200	Analyte	Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sample ID       1208       100       100       100       110         Sample ID       1208728-001A MS       SampType: MS       TestCode: EPA Method 8015B: Gasoline Range         Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130         Surr: BFB       950       974.7       97.7       84       116       20       20       4.9       24.37       0       80.1       70       130       20       20       4.9       24.37       0       80.1       70       130       20       20       4.9       24.37       0       80.1       70       130       20       20       20       4.9       24.37       0       80.1       70       130       20       20       20       27       7       84       116       20	Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	74	117				
Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK value       SPK Ref Val       % REC       LowLimit       HighLimit       % RPD       RPDLimit       Qual         Analyte       Result       PQL       SPK value       SPK Ref Val       % REC       LowLimit       HighLimit       % RPD       RPDLimit       Qual         Analyte       Result       PQL       SPK value       SPK Ref Val       % REC       LowLimit       HighLimit       % RPD       RPDLimit       Qual         Gasoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130       130       130         Surr: BFB       950       974.7       97.7       84       116       100       1	Surr: BFB	1000		1000		100	84	116				
Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139984       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Sample ID       1208728-001A MSD       SampType:       MSD       TestCode:       EPA Method 8015B:       Gasoline Range         Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139985       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70 <td< td=""><td colspan="11">Sample ID 1208728-001A MS SampType: MS TestCode: EPA Method 8015B: Gaseline Bance</td></td<>	Sample ID 1208728-001A MS SampType: MS TestCode: EPA Method 8015B: Gaseline Bance											
Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         aasoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130         Surr: BFB       950       974.7       97.7       84       116         Sample ID       1208728-001A MSD       SampType: MSD       TestCode:       EPA Method 8015B: Gasoline Range         Client ID:       Batch QC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139985       Units: mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70       130       12.9       22.1	Sample ID 1208728-001A M	S SampType	e: MS		Tes	tCode: El	PA Method	8015B: Gaso	line Rang	e		
asoline Range Organics (GRO)       20       4.9       24.37       0       80.1       70       130         Sur: BFB       950       974.7       97.7       84       116         Sample ID       1208728-001A MSD       SampType: MSD       TestCode: EPA Method 8015B: Gasoline Range         Client ID:       Batch QC       Batch ID:       3385       RunNo: 4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo: 139985       Units: mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70       130       12.9       22.1								8015B: Gasc	line Rang	e		
Surr: BFB       950       974.7       97.7       84       116         Sample ID       1208728-001A MSD       SampType: MSD       TestCode: EPA Method 8015B: Gasoline Range         Client ID:       Batch QC       Batch ID:       3385       RunNo: 4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139985       Units: mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70       130       12.9       22.1		Batch ID	D: <b>338</b>	5	F	RunNo: 4	951		-	e		
Sample ID       1208728-001A MSD       SampType: MSD       TestCode: EPA Method 8015B: Gasoline Range         Client ID:       BatchQC       Batch ID:       3385       RunNo: 4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139985       Units: mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70       130       12.9       22.1	Client ID: BatchQC Prep Date: 8/17/2012 Analyte	Batch ID Analysis Date	D: 338 e: 8/1	5 8/2012	F	RunNo: 4 SeqNo: 1	951 39984	Units: <b>mg/k</b>	(g		Qual	
Client ID:       BatchQC       Batch ID:       3385       RunNo:       4951         Prep Date:       8/17/2012       Analysis Date:       8/18/2012       SeqNo:       139985       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         asoline Range Organics (GRO)       22       4.9       24.39       0       91.0       70       130       12.9       22.1	Client ID: BatchQC Prep Date: 8/17/2012 Analyte	Batch ID Analysis Date Result F	D: <b>338</b> e: <b>8/1</b> PQL	5 8/2012 SPK value	F S SPK Ref Val	RunNo: 4 SeqNo: 1 %REC	951 39984 LowLimit	Units: <b>mg/F</b> HighLimit	(g		Qual	
Prep Date:     8/17/2012     Analysis Date:     8/18/2012     SeqNo:     139985     Units:     mg/Kg       Analyte     Result     PQL     SPK value     SPK Ref Val     %REC     LowLimit     HighLimit     %RPD     RPDLimit     Qual       asoline Range Organics (GRO)     22     4.9     24.39     0     91.0     70     130     12.9     22.1	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Gasoline Range Organics (GRO)	Batch ID Analysis Date Result F 20	D: <b>338</b> e: <b>8/1</b> PQL	5 8/2012 SPK value 24.37	F S SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 80.1	951 39984 LowLimit 70	Units: <b>mg/F</b> HighLimit 130	(g		Qual	
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           asoline Range Organics (GRO)         22         4.9         24.39         0         91.0         70         130         12.9         22.1	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Gasoline Range Organics (GRO) Surr: BFB	Batch ID Analysis Date Result F 20 950	D: <b>338</b> e: <b>8/1</b> PQL 4.9	5 8/2012 SPK value 24.37 974.7	F S SPK Ref Val 0	RunNo: 4 SeqNo: 1 %REC 80.1 97.7	951 39984 LowLimit 70 84	Units: <b>mg/F</b> HighLimit 130 116	(g %RPD	RPDLimit	Qual	
asoline Range Organics (GRO) 22 4.9 24.39 0 91.0 70 130 12.9 22.1	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1208728-001A MS	Batch ID Analysis Date Result F 20 950 SD SampType	D: 338 e: 8/1 PQL 4.9 e: MSI	5 8/2012 SPK value 24.37 974.7	F S SPK Ref Val 0 Test	RunNo: 4 SeqNo: 1 %REC 80.1 97.7 Code: El	951 39984 LowLimit 70 84 PA Method	Units: <b>mg/F</b> HighLimit 130 116	(g %RPD	RPDLimit	Qual	
	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1208728-001A MS Client ID: BatchQC	Batch ID Analysis Date Result F 20 950 SD SampType Batch ID	D: 338 e: 8/1 PQL 4.9 e: MSI D: 338	5 8/2012 24.37 974.7 D 5	F S SPK Ref Val 0 Tesi R	RunNo: 4 SeqNo: 1 %REC 80.1 97.7 Code: El	951 39984 LowLimit 70 84 PA Method 951	Units: mg/F HighLimit 130 116 8015B: Gasc	Kg %RPD Mine Rang	RPDLimit	Qual	
Surr: BFB 970 975.6 99.0 84 116 0 0	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Basoline Range Organics (GRO) Surr: BFB Sample ID 1208728-001A MS Client ID: BatchQC Prep Date: 8/17/2012	Batch ID Analysis Date Result F 20 950 SD SampType Batch ID Analysis Date	D: 338 e: 8/1 PQL 4.9 e: MSI D: 338 e: 8/1	5 8/2012 24.37 974.7 D 5 8/2012	F SPK Ref Val 0 Tesi R S	RunNo: 4 SeqNo: 1: <u>%REC</u> 80.1 97.7 Code: El RunNo: 4: SeqNo: 1:	951 39984 LowLimit 70 84 PA Method 951 39985	Units: mg/K HighLimit 130 116 8015B: Gasc Units: mg/K	Kg %RPD willine Rang	RPDLimit e		
	Client ID: BatchQC Prep Date: 8/17/2012 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1208728-001A MS	Batch ID Analysis Date Result F 20 950 SD SampType Batch ID Analysis Date Result F	D: 338 e: 8/1 PQL 4.9 e: MSI D: 338 e: 8/1 PQL	5 8/2012 24.37 974.7 D 5 8/2012 SPK value	F S SPK Ref Val 0 Tesi R S SPK Ref Val	2unNo: 4 SeqNo: 1: <u>%REC</u> 80.1 97.7 Code: El 2unNo: 4: SeqNo: 1: %REC	951 39984 LowLimit 70 84 PA Method 951 39985 LowLimit	Units: mg/F HighLimit 130 116 8015B: Gasc Units: mg/F HighLimit	Kg %RPD bline Rang Kg %RPD	RPDLimit e RPDLimit		

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

- J Analyte detected below quantitation limits R
  - RPD outside accepted recovery limits
- В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit 21-Aug-12

WO#:

1208802

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Animas Environmental Services

CoP San Juan 29-6 #20

**Project:** 

Project:	CoP San J										
Sample ID	MB-3385	3385 SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBS	Batch	1D: 33	85	F	RunNo: 4	951				
Prep Date:	8/17/2012	Analysis D	ate: 8/	18/2012	S	SeqNo: 1	40000	Units: mg/K	g		
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-Brom	ofluorobenzene	1.0		1.000		101	80	120			
Sample ID	LCS-3385	SampT	ype: LC	s	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batch	1D: 33	85	F	RunNo: 4	951				
Prep Date:	8/17/2012	Analysis D	ate: 8/	18/2012	S	SeqNo: 1	40004	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.050	1.000	0	91.1	76.3	117			
Toluene		0.94	0.050	1.000	0	93.9	80	120			
Ethylbenzene		0.97	0.050	1.000	0	96.9	77	116			
Xylenes, Total		2.9	0.10	3.000	0	97.0	76.7	117			
Surr: 4-Brom	ofluorobenzene	1.0		1.000		103	80	120			
Sample ID	1208727-001A MS	SampT	ype: MS	3	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	BatchQC	Batch	n ID: 33	85	F	RunNo: 4	951				
Prep Date:	8/17/2012	Analysis D	ate: 8/	18/2012	5	SeqNo: 1	40006	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.95	0.048	0.9643	0	98.7	67.2	113			
Toluene		1.0	0.048	0.9643	0	104	62.1	116			
Ethylbenzene		1.0	0.048	0.9643	0	108	67.9	127			
Xylenes, Total		3.1	0.096	2.893	0	109	60.6	134			
Surr: 4-Brom	ofluorobenzene	0.95		0.9643		98.8	80	120			
Sample ID	1208727-001A MSI	D SampT	ype: MS	SD	Tes	tCode: E	PA Method	8021B: Volat	tiles		
1	Detables			~-	5	RunNo: 4	951				
Client ID:	BatchQC	Batch	n ID: 33	85	1	(unito: +					
Client ID: Prep Date:	8/17/2012	Batch Analysis D				SeqNo: 1		Units: mg/K	g		
				18/2012				Units: <b>mg/K</b> HighLimit	<b>g</b> %RPD	RPDLimit	Qual
Prep Date:		Analysis D	ate: 8/	18/2012	S	SeqNo: 1	40007	-	•	RPDLimit 14.3	Qual
Prep Date: Analyte Benzene		Analysis D Result	ate: 8/	18/2012 SPK value	SPK Ref Val	eqNo: 1 %REC	40007 LowLimit	HighLimit	%RPD		Qual
Prep Date: Analyte Benzene Toluene		Analysis D Result 0.97	eate: <b>8</b> / PQL 0.048	18/2012 SPK value 0.9653	SPK Ref Val	SeqNo: 1 %REC 101	40007 LowLimit 67.2	HighLimit 113	%RPD 2.20	14.3	Qual
Prep Date: Analyte		Analysis D Result 0.97 1.0	eate: 8/ PQL 0.048 0.048	18/2012 SPK value 0.9653 0.9653	SPK Ref Val 0 0	SeqNo: 1 <u>%REC</u> 101 104	40007 LowLimit 67.2 62.1	HighLimit 113 116	%RPD 2.20 0.224	14.3 15.9	Qual
Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total		Analysis D Result 0.97 1.0 1.0	PQL PQL 0.048 0.048 0.048 0.048	18/2012 SPK value 0.9653 0.9653 0.9653	SPK Ref Val 0 0 0	SeqNo: 1 <u>%REC</u> 101 104 107	40007 LowLimit 67.2 62.1 67.9	HighLimit 113 116 127	%RPD 2.20 0.224 1.24	14.3 15.9 14.4	Qual

#### Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

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21-Aug-12

WO#: 1208802

HALL ENVIRONMENTAL ANALYSIS LABORATORY	tiati Environmental Albu Albu TEL: 505-345-3975 J Website: www.hal	4901 Ha querque, N FAX: 505-	witing NE VM 87105 345-410;	Sample	Log-In (	Check List
Client Name: Animas Environmental Received by/date:	8/18/12 W	ork Order	r Number: '	1208802		
Logged By: Michelle Garcia 8/1	8/2012 10:30:00 AM		-m	Halls Garnes		
Completed By: Michelle Gercia 8/1 Reviewed By: MQ	8/2012 11:01:00 AM		-174	telle Gennes		
Chain of Custody		••••••••••••••••••••••••••••••••••••••			· · · ·	
<ol> <li>Were seals intact?</li> <li>Is Chain of Custody complete?</li> <li>How was the sample delivered?</li> </ol>		Yes Yes M <u>Courier</u>	] No 🗌	Not Present Not Present		
<u>.og In</u>						
4. Coolers are present? (see 19. for cooler specifi	c 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)?			No			
<ul><li>8. Sufficient sample volume for indicated test(s)?</li><li>9. Are samples (except VOA and ONG) property p</li></ul>	meanuad?	Yes M				
10. Was preservative added to bottles?		Yes [	] No 🗹	NA		
11. VOA vials have zero headspace?		Yes	-	No VOA Vials		
<ul> <li>12. Were any sample containers received broken?</li> <li>13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)</li> </ul>		Yes 🖵 Yes 🗹	No 12 No 🗌		served checked	<u></u>
14. Are matrices correctly identified on Chain of Cu 15. Is it clear what analyses were requested?	stody?	Yes 🗹 Yes 🗹		for pH:	(<2 or > djusted?	12 unices noted)
16. Were all holding times able to be met? (If no, notify customer for authorization.)			No 🗆	C	necked by:	
pecial <u>Handling (if applicable)</u> 17. Was client notified of all discrepancies with this	- de la contra de la	Yee [	] No 🔲	L		
Person Notified:						-
By Whom: Regarding: Cilent Instructions:	Via:	] eMail	Phone	- Fax - Ir	Person	
18. Additional remarks:		· -			•••••	<b></b> _
19. <u>Cooler Information</u> Cooler No. Temp C. Condition Seel 1 1 1.7 Good Yes	ntact Seal No . S	eal Date	Signe	d By		

Page 1 of 1

HALL ENVIRONMENTAL         HALL ENVIRONMENTAL         ANALYSIS LABORATORY         www.hallenvironmiental.com         4901 Hawkins NE - Albuquerque, NM 87109         Tel. 505-345-3975        Fax 505-345-4107         Analysis Request				10 LUDE: BALL 17 CONOCO PUBLIPE Remarks: BALL 17 CONOCO PUBLIPE Remarks: BALL 17 CONOCO PUBLIPE Remarks: BALL 17 CONOCO PUBLIPE BUPARY SOFT: HAVING DE AVER. 17 BUPARY SOFT: HAVING DE AVER. 17
Tum-Around Time: Standard Kush Salve day. Project Name: CoP San Juan 29-6 #20 Project #:	Project Manager: D. W.d. HSOM Sampler: T. Lovic Container Preservative Type and # Type	100		Received by: Date Time The The Time Time Charter by: Date to Time Charter by Charter C
Client: Animis Environmental Client: Animis Environmental Services U.C. Mailing Address: 624 E Comanchu Faitmungton N.M. 87401	axat: and a ckage: and and and and and and and and and and	8-17-12 1322 soil SC-1		Pate: Time: Reinquished by: Virja [10] Representation of the Car Dete: Time: Representation of the Car Minja 1701 Johnst, Wate Le

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.

1220 S. St. Franc	ris Di., Saina	re, mivi 87505			CONTRACTOR OF STREET, ST.	e, NM 875							
			Rele	ase Notific	atio			ction			<b>_</b>		
						<b>OPERA</b>			Initial	Report	$\bowtie$	Final Report	
Name of Co	mpany Co	onocoPhillip	s Compai	ny			enise Journey	56					
Address 34				M 87402			lo. 505-326-95 e Gas Well	30					
Facility Nan	ne San Ju	ian 29-6 Un	it 20							20.020	07(50		
Surface Own	ner Priv	vate		Mineral C	wner	Federal Lea	ase # SF-080379	9 A	API No.	30-039-	07652		
				LOCA	TIO	N OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the	North	n/South Line	Feet from the	East/V	West Line		County		
K	K 8 29N 06W 1660						1850		West		Rio Ai	rriba	
K	0	2711		Latitude 36.	73751	Longitu	de107.48878						
					URE	Volume of	EASE Release n/a		Volume R	ecovered	n/a		
Type of Rele Source of Re		BGT Closure	e Summar	У			Hour of Occurrent	ce	Date and H			У	
Was Immedi		Given?				If YES, To							
			Yes	No 🛛 Not R	equired								
By Whom?						Date and I	Hour olume Impacting	the Wat	ercourse				
Was a Water	course Read	ched?	I Ves 🛛	No N/A		II YES, V	olume impacting	une wat	creourse.				
If a Waterco	urse was Im	pacted, Desci	ibe Fully.										
N/A													
Describe Ca	use of Prob	lem and Reme	edial Actio	on Taken.*									
N/A													
Describe Ar	ea Affected	and Cleanup	Action Ta	iken.*									
BGT CLOS	URE: NO R	ELEASE FO	UND UP	ON REMOVAL									
I haraby car	tify that the	information	viven aboy	e is true and com	plete to	the best of m	y knowledge and	underst	and that purs	suant to N	MOCD	rules and	
				nce of a C-141 reply investigate and									
should their	operations	have failed to addition NM	OCD acce	eptance of a C-14	1 report	t does not relie	eve the operator o	f respon	sibility for c	ompliance	e with a	any other	
federal, stat	e, or local la	aws and/or reg	gulations.	·P		1							
		. 1					OIL CON	VSER	VATION	DIVIS	IUN		
Signature:	Den	IM ON	ally										
			0			Approved b	y Environmental	Special	ist:				
Printed Nar	ne: Denise	Journey											
Title: Staf	f Regulator	y Technician				Approval D	ate:		Expiration	Date:			
		se.Journey@c	conocophi	llips.com		Conditions	of Approval:			Attach	ned 🗌	]	
				5-326-9556									
Date:	3/20/2015		none. St	5 520 7550									

\* Attach Additional Sheets If Necessary



