

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brázos 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  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

**Pit, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application**

11510  
Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

**Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, 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: <u>BP AMERICA PRODUCTION COMPANY</u> OGRID #: <u>778</u>	
Address: <u>200 Energy Court, Farmington, NM 87401</u>	
Facility or well name: <u>GALLEGOS CANYON UNIT COM G 179E</u>	
API Number: <u>3004524556</u>	OCD Permit Number: _____
U/L or Qtr/Qtr <u>J</u> Section <u>26.0</u> Township <u>29.0N</u> Range <u>12W</u> County: <u>San Juan County</u>	
Center of Proposed Design: Latitude <u>36.69502</u> Longitude <u>-108.06591</u> NAD: <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983	
Surface Owner: <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment	

2. <input type="checkbox"/> Pit: Subsection F or G of 19.15.17.11 NMAC		<b>OIL CONS. DIV DIST. 3</b>  <b>DEC 06 2013</b>
Temporary: <input type="checkbox"/> Drilling <input type="checkbox"/> Workover		
<input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A		
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____		
<input type="checkbox"/> String-Reinforced		
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____		

3. <input type="checkbox"/> Closed-loop System: Subsection H of 19.15.17.11 NMAC	
Type of Operation: <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)	
<input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____	

4. <input checked="" type="checkbox"/> Below-grade tank: Subsection I of 19.15.17.11 NMAC Tank ID: <u>A</u>	
Volume: <u>95.0</u> bbl Type of fluid: <u>Produced Water</u>	
Tank Construction material: <u>Steel</u>	
<input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
<input type="checkbox"/> Visible sidewalls and liner <input checked="" type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other <u>SINGLE WALLED SINGLE BOTTOMED</u>	
Liner type: Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	

5. <input type="checkbox"/> Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	

6.	<p><b>Fencing:</b> Subsection D of 19.15.17.11 NMAC (<i>Applies to permanent pits, temporary pits, and below-grade tanks</i>)</p> <p><input type="checkbox"/> Chain link, six feet in height, two strands of barbed wire at top (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>).</p> <p><input type="checkbox"/> Four foot height, four strands of barbed wire evenly spaced between one and four feet</p> <p><input checked="" type="checkbox"/> Alternate. Please specify <u>4' Hogwire with single barbed wire</u></p>																				
7.	<p><b>Netting:</b> Subsection E of 19.15.17.11 NMAC (<i>Applies to permanent pits and permanent open top tanks</i>)</p> <p><input type="checkbox"/> Screen <input type="checkbox"/> Netting <input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Monthly inspections (If netting or screening is not physically feasible)</p>																				
8.	<p><b>Signs:</b> Subsection C of 19.15.17.11 NMAC</p> <p><input type="checkbox"/> 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers</p> <p><input checked="" type="checkbox"/> Signed in compliance with 19.15.16.8 NMAC</p>																				
9.	<p><b>Administrative Approvals and Exceptions:</b></p> <p>Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.</p> <p><i>Please check a box if one or more of the following is requested, if not leave blank:</i></p> <p><input checked="" type="checkbox"/> Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.</p> <p><input type="checkbox"/> Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</p>																				
10.	<p><b>Siting Criteria (regarding permitting):</b> 19.15.17.10 NMAC</p> <p><i>Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.</i></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; vertical-align: top;"> <p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p> </td> <td style="width: 20%; text-align: center; vertical-align: top;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>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).</p> <p>- Topographic map; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> NA </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to permanent pits)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No  <input checked="" type="checkbox"/> NA </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.</p> <p>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: center; vertical-align: top;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>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.</p> <p>- Written confirmation or verification from the municipality; Written approval obtained from the municipality</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 500 feet of a wetland.</p> <p>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within the area overlying a subsurface mine.</p> <p>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within an unstable area.</p> <p>- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p> </td> <td style="text-align: center; vertical-align: top;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within a 100-year floodplain.</p> <p>- FEMA map</p> </td> <td style="text-align: center; vertical-align: top;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> </table>	<p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>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).</p> <p>- Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	<p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to permanent pits)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	<p>Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.</p> <p>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>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.</p> <p>- Written confirmation or verification from the municipality; Written approval obtained from the municipality</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Within 500 feet of a wetland.</p> <p>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Within the area overlying a subsurface mine.</p> <p>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Within an unstable area.</p> <p>- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Within a 100-year floodplain.</p> <p>- FEMA map</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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<p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA																				
<p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>(Applies to permanent pits)</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA																				
<p>Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.</p> <p>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				
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<p>Within an unstable area.</p> <p>- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
<p>Within a 100-year floodplain.</p> <p>- FEMA map</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				

11. **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: \_\_\_\_\_

12. **Closed-loop Systems 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.*

☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - 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: \_\_\_\_\_

☐ Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

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

☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Climatological Factors Assessment  
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Quality Control/Quality Assurance Construction and Installation Plan  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan  
☐ Emergency Response Plan  
☐ Oil Field Waste Stream Characterization  
☐ Monitoring and Inspection Plan  
☐ Erosion Control Plan  
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14. **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 ☐ Closed-loop System  
☐ 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15. **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 F 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 I of 19.15.17.13 NMAC  
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

*Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

- ☐ 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 I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

**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 may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.*

Ground water is less than 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 between 50 and 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
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 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	<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 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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
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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 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 the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

18.

**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 F of 19.15.17.13 NMAC  
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 Subsection F of 19.15.17.13 NMAC  
☐ Waste-Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

**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): Jeffrey PeaceTitle: Field Environmental AdvisorSignature: Jeffrey H. PeaceDate: 06/14/2010e-mail address: Peace.Jeffrey@bp.comTelephone: 505-326-9479

20.

**OCD Approval:** ☐ Permit Application (including closure plan) ☒ Closure Plan Only ☐ OCD Conditions (see attachment)OCD Representative Signature: Joseph D. KellyApproval Date: 1/15/2013Title: Senior HydrologistOCD Permit Number: 10/26/12

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 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: 7-29-2013

22.

**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.

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:***Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_

Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_

Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Site Reclamation (Photo Documentation)  
☐ Soil Backfilling and Cover Installation  
☐ Re-vegetation Application Rates and Seeding Technique

24.

**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)  
☐ 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 36.69502Longitude -108.06591NAD: ☐ 1927 ☒ 1983

25.

**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): Jeff PeaceTitle: Field Environmental AdvisorSignature: Jeff PeaceDate: December 5, 2013e-mail address: peace.jeffrey@bp.comTelephone: (505) 326-9479

BP AMERICA PRODUCTION COMPANY  
SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

Gallegos Canyon Unit Com G 179E – Tank A

API No. 3004524556

Unit Letter J, Section 26, T29N, R12W

OIL CONS. DIV DIST. 3

DEC 20 2013

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on BP America Production Company (BP) well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, BP shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the New Mexico Oil Conservation Division (NMOCD) requires because of imminent danger to fresh water, public health, safety or the environment. If deviations from this plan are necessary, any specific changes will be included on form C-144 and approved by the NMOCD. BP shall close an existing BGT that does 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 after June 16, 2008, if not retrofit with a BGT that complies with the BP NMOCD approved BGT design attached to the BP Design and Construction Plan. BP shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not previously retrofitted to comply with the BP NMOCD approved BGT Design attached to the BP Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. BP shall close the permitted BGT within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, D, or E of 19.15.17.17 NMAC.

General Closure Plan

1. BP shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.

**No notice was made due to misunderstanding of the notice requirements. BP did not think notice was necessary if BGT replaced with LPT, but realizes notice is required for any BGT closure. Closure notices will be made for all BGT closures from this point forward.**

2. BP shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice shall include the operator's name, and the location to be closed by unit letter, section, township and range. If the BGT closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

**No notice was made due to misunderstanding of the notice requirements. BP did not think notice was necessary if BGT replaced with LPT, but realizes notice is required for any BGT closure. Closure notices will be made for all BGT closures from this point forward.**

3. BP shall remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. The facilities to be used are:
- BP Crouch Mesa Landfarm, Permit NM-02-003 (Solids)
  - JFJ Landfarm, Permit NM-01-010(B) (Solids and Sludge)
  - Basin Disposal, Permit NM-01-0005 (Liquids)
  - Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
  - BP Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)
  - BP Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
  - BP Operated GCU 259 SWD, API 30-045-20006 (Liquids)
  - BP Operated GCU 306 SWD, API 30-045-24286 (Liquids)
  - BP Operated GCU 307 SWD, API 30-045-24248 (Liquids)
  - BP Operated GCU 328 SWD, API 30-045-24735 (Liquids)
  - BP Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

**All liquids and sludge in the BGT were removed and sent to one of the above NMOCD approved facilities for disposal.**

4. BP shall remove the BGT and dispose of it in a NMOCD approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD approves. If a liner is present and must be disposed of it will be cleaned by scraping any soils or other attached materials on the liner to a de minimus amount and disposed at a permitted solid waste facility, pursuant to Subparagraph (m) of Paragraph (1) of Subsection C of 19.15.35.8 NMAC. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.

**The BGT was transported to a storage area for sale and re-use.**

5. BP shall remove any on-site equipment associated with a BGT unless the equipment is required for well production.

**All equipment associated with the BGT has been removed.**

6. BP shall test the soils beneath the BGT to determine whether a release has occurred. BP shall collect at a minimum: a five (5) point composite sample and individual grab samples from any area that is wet, discolored or showing other evidence of a release and analyze for BTEX, TPH and chlorides. The testing methods for those constituents are as follows;

Constituents	Testing Method <b>95 bbl BGT</b>	Release Verification (mg/Kg)	Sample results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	ND
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	ND
TPH	US EPA Method SW-846 418.1	100	ND
Chlorides	US EPA Method 300.0 or 4500B	250 or background	16

**Notes: mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons. Other EPA methods that the division approves may be applied to all constituents listed. Chloride closure standards will be determined by which ever concentration level is greatest.**

**Soil under the BGT was sampled and TPH, BTEX and chloride levels were below the stated limits. Sampling data is attached.**

7. BP shall notify the division District III office of its results on form C-141.  
**C-141 is attached.**
8. If it is determined that a release has occurred, then BP will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.  
**Sampling results indicate no release occurred.**
9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP shall backfill the excavation, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover, re-contour and re-vegetate the location. The location will be reclaimed if it is not within the active process area  
**The area under the BGT was backfilled with clean soil and is covered by the raised compressor pad.**
10. BP shall reclaim the BGT location and all areas associated with the BGT including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. BP shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.  
**The area over the 95 bbl BGT is covered by the raised compressor pad. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.**
11. The soil cover for closures where the BGT has been removed or remediated to the NMOC's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and all practicable efforts will be made to prevent ponding of water and erosion of the cover material.  
**The area over the 95 bbl BGT is covered by the raised compressor pad. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.**
12. BP shall seed the disturbed area the first growing season after closure of the BGT. Seeding will be accomplished by drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will be, at a minimum, 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation), consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.



**The area over the 95 bbl BGT is covered by the raised compressor pad. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.**

13. BP shall seed, plant and re-seed pursuant to Paragraph (3) of Subsection I of 19.15.17.13 NMAC, until the location successfully achieves the required vegetative cover.

**BP will seed the area when the well is plugged and abandoned.**

14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, BP shall notify the NMOCD when it has seeded or planted and when it successfully achieves re-vegetation.

**BP will notify NMOCD when re-vegetation is successful.**

15. Within 60 days of closure completion, BP shall submit a closure report on NMOCD's form C-144, and will include the following;

- a. proof of closure notification (surface owner and NMOCD)
- b. sampling analytical reports; information required by 19.15.17 NMAC;
- c. disposal facility name and permit number
- d. details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
- e. site reclamation, photo documentation.

**Closure report on C-144 form is included.**

16. BP shall certify that all information in the report and attachments is accurate, truthful, and compliant with all applicable closure requirements and conditions specified in the approved closure plan.

**Certification section of C-144 has been completed.**

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Gallegos Canyon Unit Com G 179E	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004524556
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**LOCATION OF RELEASE**

Unit Letter J	Section 26	Township 29N	Range 12W	Feet from the 1,615	North/South Line South	Feet from the 1,740	East/West Line East	County: San Juan
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Latitude 36.69502 Longitude 108.06591

**NATURE OF RELEASE**

Type of Release: none	Volume of Release: N/A	Volume Recovered: N/A
Source of Release: below grade tank – 95 bbl Tank A	Date and Hour of Occurrence:	Date and Hour of Discovery:
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.	

RCVD JAN 14 '14

OIL CONS. DIV.  
DIST. 3

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Sampling of the soil and water beneath the BGT was done during removal to ensure no soil impacts from the BGT. Soil analysis resulted in TPH, BTEX and chlorides below standards. Analysis results are attached.

Describe Area Affected and Cleanup Action Taken.\* BGT was removed and the area underneath the BGT was sampled. The excavated area was backfilled and compacted. The raised compressor pad was placed over the 95 bbl BGT site and it is still within the active well area.

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: <i>Jeff Peace</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jeff Peace	Approved by Environmental Specialist:	
Title: Field Environmental Advisor	Approval Date:	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: December 5, 2013	Phone: 505-326-9479	

\* Attach Additional Sheets If Necessary

CLIENT: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>3004524556</b> TANK ID (if applicable): <b>A &amp; B</b>
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## FIELD REPORT:

(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:

PAGE #: **1** of **1**

  

SITE INFORMATION:	SITE NAME: <b>GCU COM G # 179E</b>	DATE STARTED: <b>07/29/13</b>
QUAD/UNIT: <b>J</b> SEC: <b>26</b> TWP: <b>29N</b> RNG: <b>12W</b> PM: <b>NM</b> CNTY: <b>SJ</b> ST: <b>NM</b>		DATE FINISHED:
1/4 - 1/4 FOOTAGE: <b>1,615'S/1,740'W</b> <b>NW/SE</b> LEASE TYPE: <b>FEDERAL / STATE</b> <u>FEE</u> <b>INDIAN</b>		ENVIRONMENTAL SPECIALIST(S): <b>JCB</b>
LEASE #: <b>SF - 078109</b> PROD. FORMATION: <b>DK</b> CONTRACTOR: <b>ELKHORN MBF - S. GENTRY</b>		

  

REFERENCE POINT:	WELL HEAD (W.H.) GPS COORD.: <b>36.69482 X 108.06590</b> GL ELEV.: <b>5,406'</b>	
1) <b>95 BGT (SW/SB)</b>	GPS COORD.: <b>36.69502 X 108.06591</b>	DISTANCE/BEARING FROM W.H.: <b>70', N7W</b>
2) <b>21 BGT (SW/SB)</b>	GPS COORD.: <b>36.69517 X 108.06583</b>	DISTANCE/BEARING FROM W.H.: <b>137', N9.5E</b>
3) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
4) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____

  

SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <b>HALL</b>	OVM READING (ppm)
1) SAMPLE ID: <b>95 BGT 5 - pt. @ 5'</b> SAMPLE DATE: <b>07/29/13</b> SAMPLE TIME: <b>1340</b> LAB ANALYSIS: <b>418.1/8015B/8021B/300.0(CI)</b>		<b>0.0</b>
2) SAMPLE ID: <b>21 BGT 5 - pt. @ 6'</b> SAMPLE DATE: <b>07/29/13</b> SAMPLE TIME: <b>1356</b> LAB ANALYSIS: <b>418.1/8015B/8021B/300.0(CI)</b>		<b>0.0</b>
3) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		
4) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		

  

SOIL DESCRIPTION:	SOIL TYPE: <u>SAND / SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____
SOIL COLOR: <b>DARK YELLOWISH ORANGE</b>	
COHESION (ALL OTHERS): <u>NON COHESIVE</u> SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE	PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
CONSISTENCY (NON COHESIVE SOILS): <u>LOOSE / FIRM</u> DENSE / VERY DENSE	DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY / <u>SLIGHTLY MOIST</u> / MOIST / WET / SATURATED / SUPER SATURATED	HC ODOR DETECTED: YES <u>NO</u> EXPLANATION - _____
SAMPLE TYPE: GRAB <u>COMPOSITE</u> # OF PTS. <b>5</b>	
DISCOLORATION/STAINING OBSERVED: YES <u>NO</u> EXPLANATION - _____	
ANY AREAS DISPLAYING WETNESS: YES <u>NO</u> EXPLANATION - _____	
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED : YES / <u>NO</u> EXPLANATION : _____	
ADDITIONAL COMMENTS: _____	

  

SOIL IMPACT DIMENSION ESTIMATION: <b>NA</b> ft. X <b>NA</b> ft. X <b>NA</b> ft.	EXCAVATION ESTIMATION (Cubic Yards): <b>NA</b>
DEPTH TO GROUNDWATER: <b>&lt;50'</b> NEAREST WATER SOURCE: <b>&lt;1,000'</b> NEAREST SURFACE WATER: <b>&lt;1,000'</b>	NMOC DTPH CLOSURE STD: <b>100</b> ppm

  

### SITE SKETCH

**PLOT PLAN** circle: attached

OVM CALIB. READ. = <b>100.1</b> ppm	RF = 1.00
OVM CALIB. GAS = <b>100</b> ppm	
TIME: <b>9:52</b> am/pm	DATE: <b>07/29/13</b>

  

**X - S.P.D.**

**NOTES:** BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD;  
 T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA = NOT  
 APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

### MISCELL. NOTES

WO: **N15164553**

PO #:

PK: **ZEVH01BGT2**

PJ #: **Z2-006L3-C**

Permit date(s): **06/14/10**

OCD Appr. date(s): **10/26/12**

Tank ID	OVM = Organic Vapor Meter ppm = parts per million
<b>A</b>	BGT Sidewalls Visible: <u>Y</u> / N
<b>B</b>	BGT Sidewalls Visible: <u>Y</u> / N
BGT Sidewalls Visible: Y / N	

Magnetic declination: **10° E**

  

TRAVEL NOTES:	CALLOUT: _____ ONSITE: <b>07/29/13</b>
---------------	--

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

Lab Order 1308135

Date Reported: 8/13/2013

**CLIENT:** Blagg Engineering**Client Sample ID:** 95 BGT 5-pt @ 5'**Project:** GCU Com G 179E**Collection Date:** 7/29/2013 1:40:00 PM**Lab ID:** 1308135-001**Matrix:** SOIL**Received Date:** 8/3/2013 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/6/2013 12:00:02 PM	8722
Surr: DNOP	100	63-147		%REC	1	8/6/2013 12:00:02 PM	8722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>DAM</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/6/2013 3:39:00 PM	8724
Surr: BFB	103	80-120		%REC	1	8/6/2013 3:39:00 PM	8724
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>DAM</b>
Benzene	ND	0.047		mg/Kg	1	8/6/2013 3:39:00 PM	8724
Toluene	ND	0.047		mg/Kg	1	8/6/2013 3:39:00 PM	8724
Ethylbenzene	ND	0.047		mg/Kg	1	8/6/2013 3:39:00 PM	8724
Xylenes, Total	ND	0.094		mg/Kg	1	8/6/2013 3:39:00 PM	8724
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	8/6/2013 3:39:00 PM	8724
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	16	1.5		mg/Kg	1	8/5/2013 4:55:12 PM	8731
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>LRW</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/6/2013	8740

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

<b>Chain-of-Custody Record</b>		Turn-Around Time:
Client: <u>BLAGG ENGINEERING INC.</u>		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
<u>BP AMERICA</u>		Project Name:
Mailing Address: <u>P.O. Box 87</u>		<u>GCU Com G 179E</u>
<u>BLOOMFIELD NM 87413</u>		Project #:
Phone #: <u>505-632-1199</u>		
email or Fax#:		Project Manager:
QA/QC Package:		<u>J. Blagg</u>
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation		Sampler: <u>J. Blagg</u>
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		<input type="checkbox"/> Once <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type) _____		Sample Temperature: <u>55</u>

Sample Temperature: 23.0 °C

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

	X	BTEX + MTBE + TPH's (8021)
	X	BTEX + MTBE + TPH (Gas only)
	X	TPH 8015B (GRO / DRO / MRO)
	X	TPH (Method 418.1)
		EDB (Method 504.1)
		PAH's (8310 or 8270 SIMS)
		RCRA 8 Metals
		Anions ( $F, Cl, NO_3, NO_2, PO_4, SO_4$ )
		8081 Pesticides / 8082 PCB's
		8260B (VOA)
		8270 (Semi-VOA)
	X X	CHLORIDE
		Air Bubbles (Y or N)

[illegible]

Date: 8/2/13	Time: 1400	Relinquished by: Jeff Bogg	Received by: Christopher Waller	Date 8/2/13	Time 1400
Date: 8/2/13	Time: 1530	Relinquished by: Christopher Waller	Received by: [Signature]	Date 08/05/13	Time 1100

Remarks: BILL BP  
PAYKEY: ZEVH01BGT2  
CONTACT: JEFF PEACE

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.

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308135

13-Aug-13

Client: Blagg Engineering

Project: GCU Com G 179E

Sample ID	MB-8731	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	8731	RunNo:	12430					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353758	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-8731	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	8731	RunNo:	12430					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353759	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308135

13-Aug-13

Client: Blagg Engineering

Project: GCU Com G 179E

Sample ID	MB-8740	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	8740	RunNo:	12439					
Prep Date:	8/6/2013	Analysis Date:	8/6/2013	SeqNo:	354090	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-8740	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	8740	RunNo:	12439					
Prep Date:	8/6/2013	Analysis Date:	8/6/2013	SeqNo:	354091	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	103	80	120			

Sample ID	LCSD-8740	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	8740	RunNo:	12439					
Prep Date:	8/6/2013	Analysis Date:	8/6/2013	SeqNo:	354092	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	101	80	120	2.67	20	

## Qualifiers:

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308135

13-Aug-13

Client: Blagg Engineering

Project: GCU Com G 179E

Sample ID	MB-8722	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	8722	RunNo:	12400					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353060	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		99.2	63	147			

Sample ID	1308127-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8722	RunNo:	12400					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353063	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	49.95	14.67	70.7	61.3	138			
Surr: DNOP	3.7		4.995		73.3	63	147			

Sample ID	1308127-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8722	RunNo:	12400					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353064	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.9	49.55	14.67	73.0	61.3	138	1.68	20	
Surr: DNOP	3.7		4.955		74.6	63	147	0	0	

Sample ID	LCS-8722	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	8722	RunNo:	12400					
Prep Date:	8/5/2013	Analysis Date:	8/5/2013	SeqNo:	353065	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	77.1	128			
Surr: DNOP	3.5		5.000		69.8	63	147			

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- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308135

13-Aug-13

Client: Blagg Engineering

Project: GCU Com G 179E

Sample ID	MB-8724	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	8724	RunNo:	12441					
Prep Date:	8/5/2013	Analysis Date:	8/6/2013	SeqNo:	354525	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.3	80	120			

Sample ID	LCS-8724	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	8724	RunNo:	12441					
Prep Date:	8/5/2013	Analysis Date:	8/6/2013	SeqNo:	354526	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	62.6	136			
Surr: BFB	980		1000		97.9	80	120			

## Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308135

13-Aug-13

Client: Blagg Engineering

Project: GCU Com G 179E

Sample ID	MB-8724		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	8724		RunNo:	12441			
Prep Date:	8/5/2013		Analysis Date:	8/6/2013		SeqNo:	354556		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.6	80	120			

Sample ID	LCS-8724		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	8724		RunNo:	12441			
Prep Date:	8/5/2013		Analysis Date:	8/6/2013		SeqNo:	354557		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1308132-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	8724		RunNo:	12441			
Prep Date:	8/5/2013		Analysis Date:	8/6/2013		SeqNo:	354558		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.047	0.9416	0	114	67.3	145			
Toluene	1.1	0.047	0.9416	0.007148	111	66.8	144			
Ethylbenzene	1.1	0.047	0.9416	0	115	61.9	153			
Xylenes, Total	3.3	0.094	2.825	0	116	65.8	149			
Surr: 4-Bromofluorobenzene	1.0		0.9416		106	80	120			

Sample ID	1308132-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	8724		RunNo:	12441			
Prep Date:	8/5/2013		Analysis Date:	8/6/2013		SeqNo:	354559		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.047	0.9416	0	103	67.3	145	10.6	20	
Toluene	0.93	0.047	0.9416	0.007148	98.5	66.8	144	12.2	20	
Ethylbenzene	0.96	0.047	0.9416	0	102	61.9	153	12.2	20	
Xylenes, Total	2.9	0.094	2.825	0	103	65.8	149	12.0	20	
Surr: 4-Bromofluorobenzene	1.0		0.9416		106	80	120	0	0	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
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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: BLAGG

Work Order Number: 1308135

RcptNo: 1

Received by/date:

AT

08/03/2013

Logged By:

Ashley Gallegos

8/3/2013 11:00:00 AM

Completed By:

Ashley Gallegos

8/5/2013 9:14:30 AM

Reviewed By:

KWS

8/5/13

### Chain of Custody

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

### Log In

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

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

**BP AMERICA PRODUCTION COMPANY**  
**GALLEGOS CANYON UNIT COM G 179E**  
**API 3004524556 LEASE NMSF078109**  
**1615 FSL 1740 FEL (J) SEC 26 T29N R12W**  
**San Juan County ELEV 5406**  
**LAT 36° 41' 40.200"**  
**LONG 108° 3' 54.828"**

Previous 95 bbl BGT  
Position (tank ID: A)

