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

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

# OIL CONS. DIV DIST. 3 Form C-144

Revised June 6, 2013

For temporary pits, betow-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.

6047 <u>Pit, Below-Grade Tank, or</u> Proposed Alternative Method Permit or Closure Plan Application						
Type of action:  Below grade tank registration						
<ul> <li>Permit of a pit or proposed alternative method</li> <li>Closure of a pit, below-grade tank, or proposed alternative method</li> </ul>						
Modification to an existing permit/or registration						
Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method						
Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request						
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.						
1. Operator: <u>BP America Production Company</u> OGRID #: 778						
Address: 200 Energy Court, Farmington, NM 87401						
Facility or well name:Gallegos Canyon Unit 172						
API Number:         3004507793         OCD Permit Number:						
U/L or Qtr/Qtr P Section 25 Township 29N Range 13W County: San Juan						
Center of Proposed Design: Latitude         36.69261         Longitude         -108.15099         NAD:         □1927 ⊠ 1983						
Surface Owner: 🛛 Federal 🗌 State 🗌 Private 🗌 Tribal Trust or Indian Allotment						
2. Pit: Subsection F, G or J of 19.15.17.11 NMAC						
Temporary: Drilling Workover						
Permanent Emergency Cavitation P&A Multi-Well Fluid Management Low Chloride Drilling Fluid yes no						
Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other						
String-Reinforced						
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D						
3. Below-grade tank: Subsection I of 19.15.17.11 NMAC <u>TANK A</u>						
Volume: 95 bbl Type of fluid: Produced water						
Tank Construction material: Steel						
Tank Construction material:       Steel         Secondary containment with leak detection       Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off						
Tank Construction material:       Steel         Secondary containment with leak detection       Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off         Visible sidewalls and liner       Visible sidewalls only       Other         Single wall/       Double bottom; sidewalls not visible						
Secondary containment with leak detection 🗌 Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off						
Secondary containment with leak detection      Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off     Visible sidewalls and liner      Visible sidewalls only      Other <u>Single wall/Double bottom; sidewalls not visible</u> Liner type: Thicknessmil      HDPE      PVC      Other  4.						
<ul> <li>Secondary containment with leak detection</li> <li>Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off</li> <li>Visible sidewalls and liner</li> <li>Visible sidewalls only</li> <li>Other <u>Single wall/ Double bottom; sidewalls not visible</u></li> <li>Liner type: Thicknessmil</li> <li>HDPE</li> <li>PVC</li> <li>Other</li> </ul>						

Oil Conservation Division

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tan	Fencing: S	Subsection D of 19.15.17.11	NMAC (Applies to permanent pits,	temporary pits, and below-grade tanks
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Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

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

Alternate. Please specify

5

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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 naterial 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					
<ul> <li>Within a 100-year floodplain. (Does not apply to below grade tanks)</li> <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					

<ul> <li>Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> </ul>						
II.         Multi-Well Fluid Management Pit Checklist:       Subsection B of 19.15.17.9 NMAC         Instructions:       Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. <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> <li>A List of wells with approved application for permit to drill associated with the pit.</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC</li> </ul>						
Previously Approved Design (attach copy of design) API Number: or Permit Number:						
<ul> <li>10.</li> <li>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached.</li> <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 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.1 and 19.15.17.13 NMAC</li> </ul>	numents are					
<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					
initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site						
<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> <li>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</li> </ul>						
lake (measured from the ordinary high-water mark).         -       Topographic map; Visual inspection (certification) of the proposed site         □       Yes □         No						
Permanent Pit or Multi-Well Fluid Management Pit Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa						
<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					
<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 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 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					
Temporary Pit Non-low chloride drilling fluid						
<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					
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.						
<ul> <li>application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>						
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes No					

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<ul> <li>Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC</li> <li>Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached.</li> <li>Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC</li> </ul>	documents are					
<ul> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Climatological Factors Assessment</li> </ul>						
<ul> <li>Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>						
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC						
<ul> <li>Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Quality Control/Quality Assurance Construction and Installation Plan</li> </ul>						
<ul> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>						
Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan						
<ul> <li>Emergency Response Plan</li> <li>Oil Field Waste Stream Characterization</li> </ul>						
<ul> <li>Monitoring and Inspection Plan</li> <li>Erosion Control Plan</li> </ul>						
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC						
<ol> <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> </ol>						
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F	uid Management Pit					
Proposed Closure Method: 🗌 Waste Excavation and Removal						
<ul> <li>Waste Removal (Closed-loop systems only)</li> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>						
In-place Burial On-site Trench Burial Alternative Closure Method						
14. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be of	attached to the					
<ul> <li>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>						
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 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.						
<ul> <li>Ground water is less than 25 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					
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						
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						
<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>						
<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>						
<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						
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adopted pursuant to NMSA 1978, Section 3-273, as amended.              Written confirmation or verification from the municipality; Written approval obtained from the municipality               \Vertex \Dots            Wittin confirmation or verification or map from the NM EMNRD-Mining and Mineral Division               \Vertex \Dots            Wittin an unstable area.              Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological             Society; Topographic map            Wittin an 100-year floodplain.              \Vertex \Dots            Prod Construction Plance Demonstrations - based upon the appropriate requirements of 19.15.17.13 NMACC               Press (Dots)            By a check mark in the box, that the documents are attached.              Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.13 NMACC               Proof OS Marke Convert NOVE and appropriate requirements of 19.15.17.13 NMACC            ConstructionDesign Plan of Burial Trench (f applicable) based upon the appropriate requirements of Subsection K of 19.15.17.13 NMACC               ConstructionDesign Plan of Implicable based upon the appropriate requirements of Subsection K of 19.15.17.13 NMACC            ConstructionDesign Plan of Implicable based upon the appropriate requirements of Subsection K of 19.15.17.13 NMACC               ConstructionDesign Plan of Implicable based upon the appropriate requirements of Subsection K of 19.15.17.13 NMAC		
Writen confirmation or verification or map from the NM EMNRD-Mining and Mineral Division     Writhin an unstable area.     Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological     Society; Topographic map     Writhin a 100-year floodplain.     FEMA map     Prof of Surface Course Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please Indica     by a check mark in the box. that the documents are attached.     Sing Erchera Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC     Construction/Design Plan of Europrovide traditionents of Subsection B of 19.15.17.13 NMAC     Construction/Design Plan of Burial Trench (17 applicable) based upon the appropriate requirements of 19.15.17.13 NMAC     Construction/Design Plan of Burial Trench (17 applicable) based upon the appropriate requirements of 19.15.17.13 NMAC     Construction/Design Plan of Europrovite requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC     Site Reclamation 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     Site Reclamation		Yes No
Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological     Society; Topographic map     Types = No     Yes = No     Yes = No     Yes = No     Society; Topographic map     Types = No     Society; Topographic map		Yes No
Society: Topographic map       Image: Society: Topographic map       Image: Society: Topographic map         Within a 100-year floodplain.       FEMA map       Image: Society: Soci		
Within a 100-year floadplain.       Image: Standard S		] Yes ∏ No
Point       Press       Press <td< td=""><td></td><td></td></td<>		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicates of a check mark in the hox. Instructions: a catached.         by a check mark in the hox. Match the documents are attached.         Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC         Construction/Design Plan of Temporary Pit (for in-place barial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC         Construction/Design Plan of Temporary Pit (for in-place barial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC         Construction/Design Plan of Temporary Pit (for in-place barial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC         Construction/Design Plan of Temporary Pit (for in-place barial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC         Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill curtings or in case on-site closure standards cannot be achieved)         Sile Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC         Bervegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC         Operator Application Certification:         I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.         Name (Print):       Title:         Signature:       Date:	- FEMA map	Yes No
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):	On-Site Closure Plan Checklist:       (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan.         by a check mark in the box, that the documents are attached.       Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC         Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC         Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11         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 cannot be 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	NMAC .17.11 NMAC
Name (Print):		
Signature:	I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.	
Signature:	Name (Print): Title:	
18.       OCD Approval:       Permit Application (including closure plan) (Closure Plan (only))       OCD Conditions (see attachment)         OCD Representative Signature:       Approval Date:       935330000000000000000000000000000000000		
OCD Approval:       Permit Application (including closure Ran)       Closure Plan (only)       OCD Conditions (see attachment)         OCD Representative Signature:       Approval Date:       9	e-mail address: Telephone:	
Closure Report (required within 60 days of closure completion):       19.15.17.13 NMAC         Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report         The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.	OCD Approval:       Permit Application (including closure fan)       Closure Plan (only)       OCD Conditions (see attachment)         OCD Representative Signature:       OCD No       Approval Date:       OCD Section (Section Conditions)	1064
Closure Report (required within 60 days of closure completion):       19.15.17.13 NMAC         Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report         The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.	10	
<ul> <li>20.</li> <li><u>Closure Method:</u></li> <li>Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)</li> <li>If different from approved plan, please explain.</li> </ul>	<u>Closure Report (required within 60 days of closure completion)</u> : 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not com-	
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.	Closure Completion Date: 6/16/2017	
	Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop	systems only)
mark in the box, that the documents are attached.         Proof of Closure Notice (surface owner and division)         Proof of Deed Notice (required for on-site closure for private land only)         Plot Plan (for on-site closures and temporary pits)         Confirmation Sampling Analytical Results (if applicable)	Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indice mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) Plot Plan (for on-site closures and temporary pits)	cate, by a check

Oil Conservation Division

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): Erin Garifalos	Title: Field Environmental Coordinator					
Signature: Date: Date:	September 11, 2017					
e-mail address:erin.garifalos@bp.com	Telephone: (832) 609-7048					

#### BP AMERICA PRODUCTION COMPANY SAN JUAN BASIN, NORTHWEST NEW MEXICO

#### BELOW-GRADE TANK CLOSURE PLAN

#### <u>Gallegos Canyon Unit #172</u> <u>API No. 3004507793</u> <u>Unit Letter P, Section 25, T29N, R13W</u>

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 approve 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. Notice is attached.
- 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. Notice was provided and is attached.
- 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:
  - a. BP Crouch Mesa Landfarm, Permit NM-02-003 (Solids)
  - b. JFJ Landfarm, Permit NM-01-010(B) (Solids and Sludge)
  - c. Basin Disposal, Permit NM-01-0005 (Liquids)
  - d. Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
  - e. BP Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)

- f. BP Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
- g. BP Operated GCU 259 SWD, API 30-045-20006 (Liquids)
- h. BP Operated GCU 306 SWD, API 30-045-24286 (Liquids)
- i. BP Operated GCU 307 SWD, API 30-045-24248 (Liquids)
- j. BP Operated GCU 328 SWD, API 30-045-24735 (Liquids)
- k. 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 for recycling.

 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	Release Verification	Sample
	95 bbl BGT	(mg/Kg)	results
Benzene	US EPA Method SW-846 8021B or 8260B	10	< 0.018
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	< 0.074
TPH	US EPA Method SW-846 418.1 or 8015 extended	100	<u>&lt;48</u>
Chlorides	US EPA Method 300.0 or 4500B	620	48

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 for chloride, TPH and BTEX with all concentrations below the stated limits. The field report and laboratory reports are attached.

BP shall notify the division District III office of its results on form C-141.
 C-141 is attached.

- 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 a release has not occurred. Attached is a laboratory report and C-141.
- 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 with in the active process area

# Sampling results indicate a release has not occurred. Attached is a laboratory report and field report.

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 has been backfilled. The location will be reclaimed once the well is plugged and abandoned.

11. The soil cover for closures where the BGT has been removed or remediated to the NMOCD'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 has been backfilled. The location will be reclaimed once the well is plugged and abandoned.

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 has been backfilled. The location will be reclaimed once the well is plugged and abandoned.

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.

The area has been backfilled. The location will be reclaimed once 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 revegetation.

The area has been backfilled. The location will be reclaimed once the well is plugged and abandoned.

- 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. BP did not meet the 60 closure completion requirement due to an error in internal tracking. Closure report on C-144 form is included including photos of reclamation completion.
- 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.

#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

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

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

**Release Notification and Corrective Action** 

		OPERATOR		Initial Report	$\bowtie$	Final Report
Name of Company: BP		Contact: Erin Garifalos				
Address: 200 Energy Court, Farmington, NM 8	7401	Telephone No.: 832-609-7048				
Facility Name: Gallegos Canyon Unit 172		Facility Type: Natural gas well				
Surface Owner: Fee	Mineral Owner	:: Fee	A	PI No. 30045077	793	

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
Р	25	29N	13W	830	South	790	East	

Latitude 36.69261° 

#### NATURE OF RELEASE

Type of Release: none	Volume of Release: unknown	Volume Recovered: N/A		
Source of Release: below grade tank – 95 bbl				
Was Immediate Notice Given?	If YES, To Whom?			
By Whom?	Date and Hour			
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.		
If a Watercourse was Impacted, Describe Fully.*				
Describe Cause of Problem and Remedial Action Taken.* Sampling of the Chlorides, BTEX, and TPH below BGT closure standards. Field reports	Soil analysis resulted for			
Describe Area Affected and Cleanup Action Taken.* No action necessary	. Final laboratory analysis determine	d no remedial	l action is required.	
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release multiplic health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report defederal, state, or local laws and/or regulations.	otifications and perform corrective ac e NMOCD marked as "Final Report" e contamination that pose a threat to a	tions for relea does not relie ground water,	ases which may endanger we the operator of liability surface water, human health	
Signature: Utin garifalos	OIL CONSERVATION DIVISION			
Printed Name: Erin Garifalos	Approved by Environmental Specialist:			
Title: Field Environmental Coordinator	Approval Date: Expiration Date:			
E-mail Address: erin.garifalos@bp.com Date: September 11, 2017 Phone: 832-609-7048	Conditions of Approval: Attached			

\* Attach Additional Sheets If Necessary

bp



**BP America Production Company** 200 Energy Court Farmington, NM 87401

June 2, 2017

Bureau of Land Management Whitney Thomas 6251 College Suite A Farmington, NM 87402

VIA EMAIL

Re: Notification of plans to close/remove a below grade tank Well Name: GALLEGOS CANYON UNIT 172 API #: 3004507793

Dear Mrs. Thomas,

As part of the NM "Pit Rule": 19.15.17.13 Closure Requirements, Paragraph J. BP America Production Company (BP) is required to notify the surface owner of BP's plans to close/remove a below grade tank. BP wishes to inform you of our plans to close/remove the below grade tank on its well pad located on your surface. BP plans to commence this work on or about June 7, 2017. If there aren't any unforeseen problems, the work should be completed within 10 working days.

As a point of clarification, BP will be closing the below grade tank and either operating without one or replacing it with an above ground tank, the well site will continue to operate.

If witnessing of the tank removal is required please contact me for a specific time (505)-326-9497.

Sincerely,

Steven Moskal

**BP** America Production Company

#### **Garifalos**, Erin

To: Cc:

From: Buckley, Farrah (CH2M HILL) Friday, June 09, 2017 6:50 AM Sent: 'Smith, Cory, EMNRD'; 'Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us)' 'ieffcblagg@aol.com'; 'blagg\_niv@vahoo.com'; Moskal, Steven BP Pit Close Notification - GALLEGOS CANYON UNIT 172 Subject:

> **BP** America Production Company 200 Energy Court Farmington, NM 87401 Phone: (505) 326-9200

#### SENT VIA E-MAIL TO: CORY.SMITH@STATE.NM.US; VANESSA.FIELDS@STATE.NM.US

June 9, 2017

New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

#### RE: Notice of Proposed Below-Grade Tank (BGT) Closure

**GALLEGOS CANYON UNIT 172** API 30-045-07793 (P) Section 25 - T29N - R13W San Juan County, New Mexico

Dear Mr. Cory Smith and Mrs. Vanessa Fields,

In regards to the captioned subject and requirements of the NMOCD pit rule, this letter is notification that BP is planning to close a 95bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around June 14, 2017.

Should you have any questions, please feel free to contact BP at our Farmington office.

Sincerely,

Steven Moskal **BP** Field Environmental Coordinator (505) 326-9497

Farrah Buckley BGT Project Support 970-946-9199 -cell

This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.

CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 TANK ID (if applicble):	4507793 A
FIELD REPORT:	(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER: PAGE #: 1	of
SITE INFORMATION QUAD/UNIT: P SEC: 25 TWP: 1/4 -1/4/FOOTAGE: 830'S / 790'B LEASE #: SF078926	29N RNG: 13W PM: NM CNTY: SJ ST: NM DATE FINISHED:	06/14/17 NJV
2)	GPS COORD.:         36.69261 X 108.15099         DISTANCE/BEARING FROM WH.:         1           GPS COORD.:         DISTANCE/BEARING FROM WH.:         1	92', S85E
2) SAMPLE ID:      3) SAMPLE ID:      4) SAMPLE ID:      5) SAMPLE ID:	CHAIN OF CUSTODY RECORD(S) # OR LAB USED:       HALL         (95)       SAMPLE DATE:       06/14/17       SAMPLE TIME:       1435       LAB ANALYSIS:       8015B/8021B/300.0 (         SAMPLE DATE:       SAMPLE TIME:       LAB ANALYSIS:	(CI)
SOIL COLOR: DARK YEL COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY CONSISTENCY (NON COHESIVE SOILS): LC MOISTURE: DRY/SLIGHTLYMOIST/MOIST/W SAMPLE TYPE: GRAB (COMPOSITE) # DISCOLORATION/STAINING OBSERVED: YES N SITE OBSERVATION APPARENT EVIDENCE OF A RELEASE OBSERVE EQUIPMENT SET OVER RECLAIMED AREA:	Y COHESIVE / COHESIVE / HIGHLY COHESIVE       DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / H.         Y COHESIVE / COHESIVE / COHESIVE       DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / H.         Y COEF       FIRM / DENSE / VERY DENSE       HC ODOR DETECTED: YES NO EXPLANATION -         # OF PTS.       5       ANY AREAS DISPLAYING WETNESS: YES NO EXPLANATION -         IO EXPLANATION -       -	ARD
EXCAVATION DIMENSION ESTIMATION: DEPTH TO GROUNDWATER:		

<b>Analytical Report</b>
Lab Order 1706834

# Hall Environmental Analysis Laboratory, Inc.

# Date Reported: 6/16/2017

 CLIENT: Blagg Engineering
 Client Sample ID: 5PC-TB @ 5' (95)

 Project: GCU #172
 Collection Date: 6/14/2017 2:35:00 PM

 Lab ID: 1706834-001
 Matrix: SOIL
 Received Date: 6/15/2017 9:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	48	30	mg/Kg	20	6/15/2017 12:41:38 PM	1 32305
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	6/15/2017 11:21:20 AM	1 32302
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	6/15/2017 11:21:20 AN	1 32302
Surr: DNOP	98.5	70-130	%Rec	1	6/15/2017 11:21:20 AM	1 32302
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	II NSB
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	6/15/2017 10:27:48 AN	32286
Surr: BFB	96.4	54-150	%Rec	1	6/15/2017 10:27:48 AN	32286
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.018	mg/Kg	1	6/15/2017 10:27:48 AN	32286
Toluene	ND	0.037	mg/Kg	1	6/15/2017 10:27:48 AN	32286
Ethylbenzene	ND	0.037	mg/Kg	1	6/15/2017 10:27:48 AN	32286
Xylenes, Total	ND	0.074	mg/Kg	1	6/15/2017 10:27:48 AN	32286
Surr: 4-Bromofluorobenzene	121	66.6-132	%Rec	1	6/15/2017 10:27:48 AM	32286

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix

Client:			/ BP AMERICA	Standard Rush DAY						A	A	LYS	SI	5 L	A	30	RAT		
Mailing A	ddress:	P.O. 80	X 87		GCU #172			4901 Hawkins NE - Albuquerque, NM 87109											
10000		BLOOM	FIELD, NM 87413	Postardi					Tel. 505-345-3975 Fax 505-345-4107										
Phone #:	in a	(505) 63	2-1199					Analysis Request											
email or F	ax#:	10.12111		Project Manager:					-		-			1201	-		(7	4	
QA/QC Pa	all the second		Level 4 (Full Validation)	NELSON VELEZ			ABS (8021B)	(Aluo s	/ MRO)		(S)		PO4, SO4	PCB's			water - 300,1)		÷
Accreditat	lion:			Sampler: NELSON VELEZ 97			12 (S)	(Gas	RO	(F	11 MISI	1	102	3082			EW /		mple
	•	C Other		On Ice: XYes E No				HAT	0/0	418.	3270		O3, N	s/s		NA)	1 0.00E	1	le sa
	(ype)	_		Sample Temperature: 2.3			11	3E +	(GR(	po	or	etals	CI'N	cide	(Y	01-1		e	osit
Date	Time	Matrix	Sample Request ID	Type and #	Preservative Type	HEAL NO.	BTEX +-MH	BTEX + MYBC + TMB5 (8021B) BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO		TPH (Method 418.1)	PAH (8310 or 82705IMS)	RCRA 8 Metals	Anians (F,Cl,NO3,NO2,PD4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil -	Grab sample	5 pt. composite sample
6/14/17	1435	SOIL	5PC-TB@ 5 '(95)	4 oz 1	Cool	-201	V		V			1					V	-	V
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Turner of	-													100	1.1				
Date:	Time	Relinguishe	AP 1946	Received by:		Date Time	Ran	narks		RB1 FVF	PCTIV	TOR	LISIN	THE	CONT	ACTN	ATH COR	RESECT	NDING
6/14/17	1810	1 Th	Un VI	Monst	u Walto	4/HAN 1810				& REFE	ENCE	WHE	N APP	LICA	BLEI		ITH COR	ncar o	(pirad
Dates	Time:	Relinquishe	to by:	Received by	06	Date Time		1	VID:	VHIXC	NEVE	12							
114/17	1910	111	mitted to Hall Environmental may be su	angen C	0.0		1	eren	Cold Street		- 787						-		

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

Client: Blagg Engineering Project: GCU #172

Sample ID MB-32305	SampType: mblk	TestCode: EPA Method	300.0: Anions						
Client ID: PBS	Batch ID: 32305	RunNo: 43534							
Prep Date: 6/15/2017	Analysis Date: 6/15/2017	SeqNo: 1371963	Units: mg/Kg						
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual					
Chloride	ND 1.5								
	-32305 SampType: Ics TestCode: EPA Method 300.0: Anions								
Sample ID LCS-32305	SampType: Ics	TestCode: EPA Method	300.0: Anions						
Sample ID LCS-32305 Client ID: LCSS	SampType: Ics Batch ID: 32305	TestCode: EPA Method RunNo: 43534	300.0: Anions						
	1 31		300.0: Anions Units: mg/Kg						
Client ID: LCSS	Batch ID: 32305 Analysis Date: 6/15/2017	RunNo: 43534		RPDLimit Qual					

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

R

- RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

Page 2 of 5

WO#: 1706834

16-Jun-17

### QC SUMMARY REPORT Hall Environmental Analysis Labora

WO#: 1706834

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Client:Blagg EngineeringProject:GCU #172

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Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
  - P Sample pH Not In Range
  - R RPD outside accepted recovery limits
  - S % Recovery outside of range due to dilution or matrix

Page 3 of 5

16-Jun-17

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

**Client: Project:** 

Sample ID MB-32286	SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID:	32286	F						
Prep Date: 6/14/2017	Analysis Date:	6/15/2017	SeqNo: 1371437			Units: mg/M	g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5	.0							
Surr: BFB	960	1000		96.5	54	150			
Sample ID LCS-32286	SampType:	LCS	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID:	32286	F	RunNo: 4	3526				
Prep Date: 6/14/2017	Analysis Date:	6/15/2017	S	SeqNo: 1	371438	Units: mg/K	g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25 5	.0 25.00	0	99.7	76.4	125			
Surr: BFB	1100	1000		107	54	150			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit

- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

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WO#: 1706834 16-Jun-17

Blagg Engineering GCU #172

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

Client: Blagg Engineering Project: GCU #172

Sample ID MB-32286	SampT	уре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	1 ID: 32	286	F	RunNo: 4	3526				
Prep Date: 6/14/2017	Analysis D	ate: 6/	15/2017	S	SeqNo: 1	371467	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		122	66.6	132			
Sample ID LCS-32286	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	n ID: 32	286	F	RunNo: 4	3526				
Prep Date: 6/14/2017	Analysis D	ate: 6/	15/2017	S	SeqNo: 1	371469	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		126	66.6	132			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

Page 5 of 5

16-Jun-17

1706834

WO#:

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.hal	4901 Iquerqu FAX: 5	Hawkins NI e, NM 8710 05-345-410	e 9 <b>S</b>	am	ple Log-In Check List
Client Name: BLAGG	Work Order Number:	1706	334			RcptNo: 1
Received By: Anne Thorne	6/15/2017 9:00:00 AM			Arru, Arru,	Ha	_
Completed By: Anne Thorne	6/15/2017 9:28:35 AM			am	Am	_
Reviewed By:	6115/17					
Chain of Custody						
1. Custody seals intact on sample bottles?		Yes		No		Not Present
2. Is Chain of Custody complete?		Yes	$\checkmark$	No		Not Present
3. How was the sample delivered?		Cour	ier			
Log In						
4. Was an attempt made to cool the sample	es?	Yes		No		NA 🗌
5. Were all samples received at a temperate	ure of >0° C to 6.0°C	Yes	✓	No		
6. Sample(s) in proper container(s)?		Yes		No		
7. Sufficient sample volume for indicated tes	st(s)?	Yes	$\checkmark$	No		,
8. Are samples (except VOA and ONG) pro	perly preserved?	Yes	$\checkmark$	No		
9. Was preservative added to bottles?		Yes		No	V	NA 🗌
10. VOA vials have zero headspace?		Yes		No		No VOA Vials 🗹
11. Were any sample containers received br	oken?	Yes		No	V	# of preserved
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	$\checkmark$	No		for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain	of Custody?	Yes	$\checkmark$	No		Adjusted?
14. Is it clear what analyses were requested?		Yes	$\checkmark$	No		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No		Checked by:
Special Handling (if applicable)						
16. Was client notified of all discrepancies with	th this order?	Yes		No		NA 🗹
Person Notified:	Date					
By Whom:	Via:	eMa		ne 🗌	Fax	
Regarding: Client Instructions:	BARABARAN MINING MANAGARAN AN AMARANA ANY ANY ANY ANY ANY ANY ANY ANY ANY	is islama a as			CALL COMPANY OF	
17. Additional remarks:	11 88-					
18. Cooler Information						
	Seal Intact   Seal No   S	eal Da	te Si	gned B	y I	
	/es				-	
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