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

# State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

| Pit, Below-Grade Tank, or   |
|---|
| Proposed Alternative Method Permit or Closure Plan Application  |
| Proposed Alternative Method Permit or Closure Plan Application  Type of action:   Below-Grade Tank, or  Proposed Alternative Method Permit or Closure Plan Application  Type of action:   Below grade tank registration   |
| Permit of a pit or proposed alternative method  Closure of a pit, below-grade tank, or proposed alternative method  Modification to an existing permit/or registration  Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method  |
| Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request  |
| Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances. |
| Operator: BP America Production Company  OGRID #: 778   |
| Address: 200 Energy Court, Farmington, NM 87401   |
| Facility or well name: Gallegos Canyon Unit 219   |
| API Number: 3004511629 OCD Permit Number:   |
| U/L or Qtr/Qtr A Section 23 Township 28N Range 12W County: San Juan   |
| Center of Proposed Design: Latitude <u>36.651041</u> Longitude <u>-108.071897</u> NAD: □1927 ⋈ 1983   |
| Surface Owner: ☑ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment   |
| Pit: Subsection F, G or J of 19.15.17.11 NMAC   Temporary:  |
| 3.  |
| ☑ Below-grade tank:       Subsection I of 19.15.17.11 NMAC       TANK B         Volume:       21       bbl Type of fluid:       Produced water  |
| 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; visible sidewalls  |
| Liner type: Thicknessmil  |
| 4.  Alternative Method:   |

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

| Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify   |               |  |  |  |  |  |
|--|---------------|--|--|--|--|--|
| 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. |               |  |  |  |  |  |
| 9. Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptate are provided below. Siting criteria does not apply to drying pads or above-grade tanks.  | ptable source |  |  |  |  |  |
| General siting   |               |  |  |  |  |  |
| Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  - □ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells  | Yes No        |  |  |  |  |  |
| 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        |  |  |  |  |  |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality   | Yes No        |  |  |  |  |  |
| Within the area overlying a subsurface mine. (Does not apply to below grade tanks)  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  | ☐ Yes ☐ No    |  |  |  |  |  |
| <ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>  | ☐ Yes ☐ No    |  |  |  |  |  |
| Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map   | ☐ Yes ☐ No    |  |  |  |  |  |
| Below Grade Tanks  |               |  |  |  |  |  |
| Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |  |  |  |  |  |
| Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |  |  |  |  |  |
| Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)   |               |  |  |  |  |  |
| Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site  | ☐ Yes ☐ No    |  |  |  |  |  |

| Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial   | Yes No        |
|---|---------------|
| <ul> <li>application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>   |               |
| Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Temporary Pit Non-low chloride drilling fluid   |               |
| Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole,   |               |
| or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site  | ☐ Yes ☐ No    |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | ☐ Yes ☐ No    |
| Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Within 300 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Permanent Pit or Multi-Well Fluid Management Pit  |               |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image   | ☐ Yes ☐ No    |
| Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of  |               |
| initial application NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No    |
| 10.  Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 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.  |               |
| 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  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. and 19.15.17.13 NMAC |               |
| ☐ Previously Approved Design (attach copy of design) API Number: or Permit Number:  |               |
| 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 doc attached.  | cuments are   |
| □ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC □ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC □ A List of wells with approved application for permit to drill associated with the pit. □ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC □ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  | .15.17.9 NMAC |
| ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   |               |
| Previously Approved Design (attach copy of design) API Number: or Permit Number:  |               |

| 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   |                     |  |  |  |  |  |  |
| <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> <li>□ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> <li>□ Emergency Response Plan</li> </ul>   |                     |  |  |  |  |  |  |
| ☐ 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   |                     |  |  |  |  |  |  |
| Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.   |                     |  |  |  |  |  |  |
| Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F Alternative Proposed Closure Method: Waste Excavation and Removal   | luid Management Pit |  |  |  |  |  |  |
| Waste Removal (Closed-loop systems only)  ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  ☐ In-place Burial ☐ On-site Trench Burial  ☐ Alternative Closure Method  |                     |  |  |  |  |  |  |
| 14.  |                     |  |  |  |  |  |  |
| Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached.  □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC |                     |  |  |  |  |  |  |
|  |                     |  |  |  |  |  |  |
| Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. In 19.15.17.10 NMAC for guidance.  |                     |  |  |  |  |  |  |
| Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | ☐ Yes ☐ No<br>☐ NA  |  |  |  |  |  |  |
| Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | Yes No              |  |  |  |  |  |  |
| 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   | Yes No              |  |  |  |  |  |  |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site   | ☐ Yes ☐ No          |  |  |  |  |  |  |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image   |                     |  |  |  |  |  |  |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site  | ☐ 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   |                     |  |  |  |  |  |  |
| 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.  |                          |  |  |  |  |  |  |  |  |
|---|--------------------------|--|--|--|--|--|--|--|--|
| adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality  Yes  |                          |  |  |  |  |  |  |  |  |
| Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  Yes  |                          |  |  |  |  |  |  |  |  |
| Within an unstable area.  |                          |  |  |  |  |  |  |  |  |
| - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map   |                          |  |  |  |  |  |  |  |  |
| Within a 100-year floodplain FEMA map   |                          |  |  |  |  |  |  |  |  |
| 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.  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.  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 cann 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 | 11 NMAC<br>15.17.11 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 believed.   | ief.                     |  |  |  |  |  |  |  |  |
| Name (Print): Title:  |                          |  |  |  |  |  |  |  |  |
| Signature: Date:  |                          |  |  |  |  |  |  |  |  |
| e-mail address: Telephone:  |                          |  |  |  |  |  |  |  |  |
| e-mail address: Telephone:  |                          |  |  |  |  |  |  |  |  |
| e-mail address:  DCD Approval:  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)  OCD Representative Signature:  Approval Date:  Title:  OCD Permit Number:  |                          |  |  |  |  |  |  |  |  |
| 18.  OCD Approval: Permit Application (including closure plan)  OCD Representative Signature:  Approval Date:  OCD Permit Number:  19.  Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.   | the closure report.      |  |  |  |  |  |  |  |  |
| 18.  OCD Approval: Permit Application (including closure plan)  OCD Representative Signature:  Approval Date:  Title: OCD Permit Number:  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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date: 4/12/2017   | the closure report.      |  |  |  |  |  |  |  |  |
| 18.  OCD Approval: Permit Application (including closure plan)  OCD Representative Signature:  Approval Date:  OCD Permit Number:  19.  Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.   | the closure report.      |  |  |  |  |  |  |  |  |

| 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 requirement  | its and conditions specified in the approved closure plan. |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
| Name (Print): Steve Moskal  | Title: Field Environmental Coordinator                     |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
| Signature: Alexa Mily   | D . L. 12 2017   |  |  |  |  |  |  |  |  |
| Signature:  | Date:June 13, 2017   |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
| e-mail address: steven.moskal@bp.com  | Telephone: (505) 326-9497                                  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |

### BP AMERICA PRODUCTION COMPANY

SAN JUAN BASIN, NORTHWEST NEW MEXICO

### BELOW-GRADE TANK CLOSURE PLAN

## Gallegos Canyon Unit 219 API No. 3004511629 Unit Letter A, Section 23, T28N, R12W

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.

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                              | Release Verification | Sample  |
|--------------|---|----------------------|---------|
|              | 21 bbl BGT                                  | (mg/Kg)              | results |
| Benzene      | US EPA Method SW-846 8021B or 8260B         | 0.2                  | < 0.020 |
| Total BTEX   | US EPA Method SW-846 8021B or 8260B         | 50                   | < 0.078 |
| TPH          | US EPA Method SW-846 418.1 or 8015 extended | 100                  | <50     |
| Chlorides    | US EPA Method 300.0 or 4500B                | 250 or background    | <30     |

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 TPH, BTEX and chloride with all concentrations below the stated limits. The field report and laboratory reports are 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 indicates no release had 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 indicates no release had occurred. Attached is a laboratory report and field report. The location will be reclaimed when the well is plugged and abandoned.

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 when 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 location will be reclaimed when 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 location will be reclaimed when 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 location will be reclaimed 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 revegetation.

### The location will be reclaimed when 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.

    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.

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

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

Form C-141

Revised August 8, 2011

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

|   |  |              | Kele       | ease Notiii                        | catio    | on and Co                                 | orrective A                    | ction        |                                   |              |             |              |  |  |
|---|--|--------------|------------|------------------------------------|----------|---|--------------------------------|--------------|-----------------------------------|--------------|-------------|--------------|--|--|
|   |  |              |            |                                    |          | <b>OPERA</b>                              | ΓOR                            |              | Initia                            | al Report    | $\boxtimes$ | Final Report |  |  |
| Name of Co  | mpany: BP  | 1            |            |                                    |          | Contact: Steve Moskal                     |                                |              |                                   |              |             |              |  |  |
| Address: 20   |  |              |            | M 87401                            |          |   | No.: 505-326-94                |              |                                   |              |             |              |  |  |
| Facility Na   | me: Gallego  | s Canyon U   | Init 219   |                                    |          | Facility Typ                              | e: Natural gas v               | well         |                                   |              |             |              |  |  |
| Surface Ow  | ner: Federa  | 1            |            | Mineral (                          | Owner    | : Federal                                 |                                | A            | API No                            | . 3004511    | 629         |              |  |  |
|   |  |              |            |                                    |          |   | LEACE                          |              |                                   |              |             |              |  |  |
| Unit Letter   | Section  | Township     | Range      | Feet from the                      |          | N OF RE                                   | Feet from the                  | East/West    | Line                              | County: S    | an Ilian    |              |  |  |
| A   |  | 28N          | 12W        | 990                                | North    |   | 790                            | East         | Line                              | County. 5    | an Juan     |              |  |  |
| Latitude 36.651041° Longitude -108.071897°  NATURE OF RELEASE       |  |              |            |                                    |          |   |                                |              |                                   |              |             |              |  |  |
| Tyma of Dala  | 0001 0000  |              |            | NAI                                | UKI      |   | Release: unknow                | III Vo       | Juma D                            | Recovered: 1 | T/A         |              |  |  |
| Type of Rele<br>Source of Re  |  | grade tank   | 21 bbl     |                                    |          |   | Hour of Occurrence             |              |                                   | Hour of Dis  |             | none         |  |  |
| Source of Re  | lease. Delow   | grade tank – | 21 001     |                                    |          | none                                      | iour of Occurrence             | Da           | ne and                            | Hour of Dis  | covery.     | none         |  |  |
| Was Immedi  | ate Notice Gi  |              | Yes 🗵      | No □ Not R                         | equired  | If YES, To                                | Whom?                          |              |                                   |              |             |              |  |  |
| By Whom?  |  |              |            |                                    |          | Date and I                                |                                |              |                                   |              |             |              |  |  |
| Was a Water   | course Reach   |              | Yes 🗵      | No                                 |          | If YES, Volume Impacting the Watercourse. |                                |              |                                   |              |             |              |  |  |
| If a Watercon   |  |              |            |                                    |          |   |                                |              |                                   |              |             |              |  |  |
|   |  |              |            | n Taken.* Samplerds. Field reports |          |   | the BGT was do s are attached. | ne during re | moval.                            | Soil analys  | is resul    | ted for TPH, |  |  |
| Describe Are  | a Affected ar  | nd Cleanup A | Action Tak | ken.* No further                   | action n | necessary. Fina                           | al laboratory analy            | ysis determi | ned no                            | remedial ac  | tion is r   | equired.     |  |  |
| regulations a<br>public health<br>should their or<br>or the environ | 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. |              |            |                                    |          |   |                                |              | danger<br>liability<br>man health |              |             |              |  |  |
| Signature:  | Hans Mi  | Ew .         |            |                                    |          | OIL CONSERVATION DIVISION                 |                                |              |                                   |              |             |              |  |  |
| Printed Name  | e: Steve Mosi  | kal          |            |                                    |          | Approved by                               | Environmental S                | pecialist:   |                                   |              |             |              |  |  |
| Title: Field E  | invironmenta   | l Coordinato | r          |                                    |          | Approval Date: Expiration D               |                                |              | Date:                             |              |             |              |  |  |
| E-mail Addre  | ess: steven.m  | oskal@bp.co  | om         |                                    |          | Conditions of Approval:                   |                                |              |                                   |              |             |              |  |  |
| Date: June 13   | 3, 2017  | I            | Phone: 50  | 5-326-9497                         |          |   |                                |              |                                   |              |             |              |  |  |

<sup>\*</sup> Attach Additional Sheets If Necessary

### bp



BP America Production Company 200 Energy Court Farmington, NM 87401

April 4, 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 219

API#: 3004511629

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 April 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

### Moskal, Steven

From:

Moskal, Steven

Sent:

Monday, April 10, 2017 7:13 AM

To:

Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us);

'l1thomas@blm.gov'

Cc:

jeffcblagg@aol.com; blagg\_njv@yahoo.com; Powell, Ross L (MBF SERVICES)

Subject:

RE: BP Pit Close Notification - GCU 219

The 21 bbl BGT is scheduled to be closed at 9:30 this morning.

Thank you,

### Steve Moskal

BP Lower 48 – San Juan – Farmington Field Environmental Coordinator Office: (505) 326-9497

Cell: (505) 326-949



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From: Buckley, Farrah (CH2M HILL) Sent: Tuesday, April 04, 2017 11:57 AM

To: Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us)

Cc: <u>jeffcblagg@aol.com</u>; <u>blagg\_njv@yahoo.com</u>; Moskal, Steven

Subject: RE: BP Pit Close Notification - GCU 219

BP will be closing the 21bbl BGT on this location Friday not the 95bbl as stated below.

Thanks, Farrah

From: Buckley, Farrah (CH2M HILL) Sent: Tuesday, April 04, 2017 11:51 AM

To: 'Smith, Cory, EMNRD'; 'Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us)'

Cc: 'jeffcblagg@aol.com'; 'blagg\_njv@yahoo.com'; Moskal, Steven

Subject: BP Pit Close Notification - GCU 219

**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

April 4, 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 219 API 30-045-11629 (A) Section 23 – T28N – R12W 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 April 7, 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.<br>P.O. BOX 87, BLOOMFIELD, NM 87413   | API#: 3004511629  |  |  |  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|--|--|--|
| OLILIVI.   | (505) 632-1199   | TANK ID (if applicble):   |  |  |  |  |  |  |  |  |
| FIELD REPORT:  | (circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:  | PAGE#: 1 of 1   |  |  |  |  |  |  |  |  |
| SITE INFORMATION   | J: SITE NAME: GCU # 219  | DATE STARTED: 04/10/17  |  |  |  |  |  |  |  |  |
| QUAD/UNIT: A SEC: 23 TWP:  | 28N RNG: 12W PM: NM CNTY: SJ ST: NN  |   |  |  |  |  |  |  |  |  |
| 1/4 -1/4/FOOTAGE: 990'N / 790'I  |  |   |  |  |  |  |  |  |  |  |
| LEASE #: <b>SF078904</b>   | PROD. FORMATION: MV CONTRACTOR: MBF - R. POWELL  | SPECIALIST(S): NJV  |  |  |  |  |  |  |  |  |
| REFERENCE POINT  |  | .74 GL ELEV.: 5,822'  |  |  |  |  |  |  |  |  |
| 1) 21 BGT (SW/DB)  |  | DE/BEARING FROM W.H.: 944', S62E  |  |  |  |  |  |  |  |  |
| 2)   | GPS COORD.: DISTANC  | E/BEARING FROM W.H.:  |  |  |  |  |  |  |  |  |
| 3)   | GPS COORD.: DISTANC  | CE/BEARING FROM W.H.:   |  |  |  |  |  |  |  |  |
| 4)   | GPS COORD.: DISTANC  |   |  |  |  |  |  |  |  |  |
| SAMPLING DATA:   | CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL   | OVM<br>READING<br>(ppm)   |  |  |  |  |  |  |  |  |
| 1) SAMPLE ID: 5PC - TB @ 6'  | (21) SAMPLE DATE: 04/10/17 SAMPLE TIME: 0945 LAB ANALYSIS:   |   |  |  |  |  |  |  |  |  |
| 2) SAMPLE ID:  | SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:  |   |  |  |  |  |  |  |  |  |
| 3) SAMPLE ID:  | SAMPLE DATE:SAMPLE TIME: LAB ANALYSIS:   |   |  |  |  |  |  |  |  |  |
| 4) SAMPLE ID:  | SAMPLE DATE:SAMPLE TIME: LAB ANALYSIS:   |   |  |  |  |  |  |  |  |  |
| SOIL COLOR: MODERATI  COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY  CONSISTENCY (NON COHESIVE SOILS): LC  MOISTURE: DRY/SLIGHTLY MOIST/ MOIST/ W           | SOIL DESCRIPTION: SOIL TYPE: SAND SILTY SAND SILT (SILTY CLAY) CLAY / GRAVEL / OTHER CALICHE (VERY PALE ORANGE)  SOIL COLOR: MODERATE BROWN  COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY COHESIVE / CHESIVE / CLAYS & SILTS): SOFT (FIRM) STIFF / VERY STIFF / HARD  CONSISTENCY (NON COHESIVE SOILS): LOOSE FIRM) DENSE / VERY DENSE  MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED  SAMPLE TYPE: GRAB (COMPOSITE) # OF PTS. 5  ANY AREAS DISPLAYING WETNESS: YES NO EXPLANATION-   |   |  |  |  |  |  |  |  |  |
| SITE OBSERVATION APPARENT EVIDENCE OF A RELEASE OBSERVE EQUIPMENT SET OVER RECLAIMED AREA: OTHER: NMOCD REP. PRESENT TO WIT PIPING DISCONNECTED PRIOR TO A | LOST INTEGRITY OF EQUIPMENT: YES NO EXPLANATION - ED AND/OR OCCURRED: YES NO EXPLANATION: YES NO EXPLANATION - TNESS CONFIRMATION SAMPLING. CALICHE BELOW 5 FT. FROM GRADE. IRRIVAL.   |   |  |  |  |  |  |  |  |  |
| SOIL IMPACT DIMENSION ESTIMATION: DEPTH TO GROUNDWATER: <50' N   |  | NOCD TPH CLOSURE STD: 100 ppm   |  |  |  |  |  |  |  |  |
| SITE SKETCH  | DOT I was a second of the seco | OMONUD DEAD - NA  |  |  |  |  |  |  |  |  |
| TO W.H.  | PEOT PEAN CITCLE. ALLACTICAL PLOT PEAN CITCLE.   | OVM CALIB. READ. = NA ppm RF = 0.52 OVM CALIB. GAS = NA ppm TIME: NA am/pm DATE: NA  MISCELL. NOTES WO:   |  |  |  |  |  |  |  |  |
|  | PROD. TANK  PBGTL T.B. ~6' B.G.  WOODEN R.W.  X - S.P.D.  ON DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD;  ON DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD;   | REF #: P - 830  VID: VHIXONEVB2  PJ #:  Permit date(s): 03/28/17  OCD Appr. date(s): 03/29/17  Tank OVM = Organic Vapor Meter ppm = parts per million  B BGT Sidewalls Visible: Y / N  BGT Sidewalls Visible: Y / N |  |  |  |  |  |  |  |  |
|  | .OW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT<br>E WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.  | Magnetic declination: 10° E   |  |  |  |  |  |  |  |  |
| NOTES: GOOGLE EARTH IMAGE  | ERY DATE: 3/15/2015. ONSITE: 04/10/17  |   |  |  |  |  |  |  |  |  |

revised: 11/26/13

### **Analytical Report**

### Lab Order 1704366

Date Reported: 4/12/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Blagg Engineering

Client Sample ID: 5PC-TB @ 6' (21)-B

Project: GCU 219

Collection Date: 4/10/2017 9:45:00 AM

Lab ID: 1704366-001

Received Date: 4/11/2017 7:15:00 AM

| Analyses                        | Result     | PQL Qu   | al Units | DF | Date Analyzed         | Batch |
|---------------------------------|------------|----------|----------|----|-----------------------|-------|
| EPA METHOD 300.0: ANIONS        |            |          |          |    | Analyst               | MRA   |
| Chloride                        | ND         | 30       | mg/Kg    | 20 | 4/11/2017 10:55:51 AM | 31182 |
| EPA METHOD 8015M/D: DIESEL RANG | E ORGANICS | 3        |          |    | Analyst               | TOM   |
| Diesel Range Organics (DRO)     | ND         | 9.9      | mg/Kg    | 1  | 4/11/2017 10:04:56 AM | 31175 |
| Motor Oil Range Organics (MRO)  | ND         | 50       | mg/Kg    | 1  | 4/11/2017 10:04:56 AM | 31175 |
| Surr: DNOP                      | 110        | 70-130   | %Rec     | 1  | 4/11/2017 10:04:56 AM | 31175 |
| EPA METHOD 8015D: GASOLINE RAN  | GE         |          |          |    | Analyst:              | NSB   |
| Gasoline Range Organics (GRO)   | ND         | 3.9      | mg/Kg    | 1  | 4/11/2017 10:58:47 AM | 31164 |
| Surr: BFB                       | 110        | 54-150   | %Rec     | 1  | 4/11/2017 10:58:47 AM | 31164 |
| EPA METHOD 8021B: VOLATILES     |            |          |          |    | Analyst:              | NSB   |
| Benzene                         | ND         | 0.020    | mg/Kg    | 1  | 4/11/2017 10:58:47 AM | 31164 |
| Toluene                         | ND         | 0.039    | mg/Kg    | 1  | 4/11/2017 10:58:47 AM | 31164 |
| Ethylbenzene                    | ND         | 0.039    | mg/Kg    | 1  | 4/11/2017 10:58:47 AM | 31164 |
| Xylenes, Total                  | ND         | 0.078    | mg/Kg    | 1  | 4/11/2017 10:58:47 AM | 31164 |
| Surr: 4-Bromofluorobenzene      | 119        | 66.6-132 | %Rec     | 1  | 4/11/2017 10:58:47 AM | 31164 |

Matrix: SOIL

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

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

| Chain-of-Custody Record     |         | i urn-Arouna | ıme:                      | SAME                 |                       |           |   | ш  | AI             |                    | NI                 | /TI                                   |   | BII             | ME          | :NT             | FA               |          |             |                 |                      |
|-----------------------------|---------|--------------|---------------------------|----------------------|-----------------------|-----------|---|--|----------------|--------------------|--------------------|---------------------------------------|---|-----------------|-------------|-----------------|------------------|----------|-------------|-----------------|----------------------|
| Client:                     | BLAG    | G ENGR.      | / BP AMERICA              | ☐ Standard           | Rush _                | DAY )     | -   |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
|                             |         |              | Project Name:             |                      |                       |           | ANALYSIS LABORATORY www.hallenvironmental.com |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
| Mailing A                   | ddress: | P.O. BO      | X 87                      |                      | GCU # 21              | .9        | 4901 Hawkins NE - Albuquerque, NM 87109       |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
|                             |         | BLOOM        | FIELD, NM 87413           | Project #:           |                       |           | Tel. 505-345-3975 Fax 505-345-4107            |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
| Phone #:                    |         | (505) 63     | 2-1199                    |                      |                       |           | Analysis Request                              |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
| email or F                  | ax#:    |              | •                         | Project Manag        | ger:                  |           |   |  |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
| QA/QC Pa                    | -       |              | Level 4 (Full Validation) |                      | NELSON VI             | ELEZ      | FMB <sup>4</sup> s (8021B)                    | only)  | / MRO)         |                    |                    | 2                                     | 04,50   | PCB's           |             |                 | er - 300.1)      |          |             |                 |                      |
| Accredita                   |         |              |                           | Sampler:             | NELSON VI             | ELEZ ny   | 8 (8  | (Gas   | / DRO /        | =                  |                    | N N                                   | 0,5   | 8082            |             |                 | / water          |          |             | sample          |                      |
| □ NELAF                     | •       | □ Other      |                           | On Ice               |                       | G No. 34  | 1   | 표  | 0/0            | 118.               | 9 6                | 2 .                                   | S, S  | s/8             |             | <u>₹</u>        | 300.0 /          |          |             | e sal           | N N                  |
| □ EDD (                     | Гуре)   |              |                           | Sample Temp          | erature : /           | 0         | 4   | #  | (GR(           | po                 | bo                 | or o                                  | Z,  | cide            | æ           | ΙŞ              |                  |          | e           | osit            | 3                    |
| Date                        | Time    | Matrix       | Sample Request ID         | Container Type and # | Preservative<br>Type  | HEAL No.  | BTEX +-MFF                                    | BTEX + MTBE + TPH (Gas only)                                       | TPH 8015B (GRO | TPH (Method 418.1) | EDB (Method 504.1) | PAH (8310 of 82705) MST RCRA 8 Metals | Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> ) | 8081 Pesticides | 8260B (VOA) | 8270 (Semi-VOA) | Chloride (soil - |          | Grab sample | 5 pt. composite | Air Bubbles (Y or N) |
| 4/0/17                      | 0945    | SOIL         | 5PC-TB@ 6 '(21)-B         | 4 oz 1               | Cool                  | 701       | ٧   |  | ٧              |                    |                    |                                       | T   |                 |             |                 | ٧                |          |             | ٧               |                      |
|                             |         |              |                           |                      |                       |           |   | $\neg$   |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
|                             |         |              |                           |                      |                       |           |   | $\neg$   |                | $\top$             | $\top$             |                                       |   | $\vdash$        |             |                 | П                |          |             | $\neg$          |                      |
|                             |         |              |                           |                      |                       |           |   | $\neg$   |                |                    |                    |                                       | $\top$  |                 |             |                 |                  |          | 7           | _               | _                    |
|                             |         |              |                           |                      |                       |           |   |  |                | $\neg$             | $\top$             | $\top$                                | +-  | $\top$          | 1           |                 |                  |          | $\dashv$    | $\neg$          |                      |
|                             |         |              |                           |                      |                       |           |   |  |                | $\top$             | +                  | $\top$                                | +   |                 | _           |                 |                  |          | -           | $\dashv$        | _                    |
|                             |         |              |                           |                      |                       |           |   |  |                | _                  | +                  | +                                     | +   | $\vdash$        | 1           |                 |                  | $\Box$   | $\dashv$    | +               |                      |
|                             |         |              |                           |                      |                       |           |   | $\dashv$   | 1              | _                  | +                  | +                                     | +   |                 | $\vdash$    |                 |                  | $\vdash$ | -           | $\dashv$        |                      |
|                             |         |              |                           |                      |                       |           |   | $\dashv$   | +              | +                  | +                  | +                                     | +   | $\vdash$        | $\vdash$    |                 |                  |          | -           | $\dashv$        |                      |
| •                           |         |              |                           |                      |                       |           | $\vdash$                                      | $\dashv$   | $\dashv$       | +                  | +                  | +-                                    | +   | $\vdash$        | $\vdash$    |                 | -                | $\vdash$ | -           | $\dashv$        |                      |
|                             |         |              |                           |                      |                       |           |   | $\dashv$   | $\dashv$       | +                  | +                  | +                                     | +   | $\vdash$        | $\vdash$    | $\vdash$        | Н                | $\vdash$ | $\dashv$    | $\dashv$        |                      |
|                             |         |              | 12.00                     |                      |                       |           | $\vdash$                                      |  | $\dashv$       | +                  | +                  | +                                     | +-  | $\vdash$        | -           | -               |                  | $\vdash$ | $\dashv$    | $\dashv$        |                      |
| Date: Time: Relinquished by |         | Received by: |                           | Date Time            | Rem                   | arks      |   | BILL DI  | RECTL          | Y TO BI            | USIN               | G THE                                 | CONT  | ACT V           | VITH C      | CORRE           | SPON             | DING     | VID         |                 |                      |
| 4/10/17                     | 1710    | 1            | Chry                      | Not Wa               | Not Walk 4/10/17 1710 |           |   | & REFERENCE # WHEN APPLICABLE; CONTACT: STEVE MOSKAL / VANCE HIXON |                |                    |                    |                                       |   |                 |             |                 |                  |          |             |                 |                      |
| Date:                       | Time:   | Relinquishe  | d by:                     | Received by:         | 1                     | Date Time |   | ١  | /ID:           | VHIX               | ONE                | /B2                                   | ,   |                 |             |                 |                  |          |             |                 | 1                    |
| 1/10/1/1840 / Cht Walt      |         | 16           | u the                     | 4111/17 0715         | Refe                  | erenc     | :e #  |  | P - 83         | 0                  |                    |                                       |   | -1-1-1          |             | analuf          | - 1              |          |             |                 |                      |

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1704366 12-Apr-17

Client:

**Blagg Engineering** 

Project:

GCU 219

Sample ID MB-31182

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 31182

PQL

RunNo: 42023

Prep Date: 4/11/2017 Analysis Date: 4/11/2017

SeqNo: 1320834

Units: mg/Kg

%RPD

%RPD

HighLimit

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-31182

4/11/2017

SampType: Ics

Result

TestCode: EPA Method 300.0: Anions

SPK value SPK Ref Val %REC LowLimit

Client ID: LCSS

Batch ID: 31182

RunNo: 42023

Units: mg/Kg HighLimit

Prep Date: Analyte

Analysis Date: 4/11/2017

SeqNo: 1320835

110

**RPDLimit** Qual

SPK value SPK Ref Val %REC PQL Chloride 14 1.5 15.00 96.1

### Qualifiers:

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

Analyte detected in the associated Method Blank

Page 2 of 5

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1704366

12-Apr-17

Client:

Blagg Engineering

| Project: GCU 21                | 19                       | *  |
|--------------------------------|--------------------------|--|
| Sample ID LCS-31157            | SampType: LCS            | TestCode: EPA Method 8015M/D: Diesel Range Organics    |
| Client ID: LCSS                | Batch ID: 31157          | RunNo: <b>42017</b>                                    |
| Prep Date: 4/10/2017           | Analysis Date: 4/11/2017 | SeqNo: 1319773 Units: %Rec                             |
| Analyte                        |                          | SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual |
| Surr: DNOP                     | 5.1 5.000                | 102 70 130   |
| Sample ID LCS-31175            | SampType: LCS            | TestCode: EPA Method 8015M/D: Diesel Range Organics    |
| Client ID: LCSS                | Batch ID: 31175          | RunNo: <b>42017</b>                                    |
| Prep Date: 4/11/2017           | Analysis Date: 4/11/2017 | SeqNo: 1319774 Units: mg/Kg                            |
| Analyte                        | Result PQL SPK value     | SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual |
| Diesel Range Organics (DRO)    | 50 10 50.00              | 0 99.4 63.8 116  |
| Surr: DNOP                     | 5.1 5.000                | 101 70 130   |
| Sample ID MB-31157             | SampType: MBLK           | TestCode: EPA Method 8015M/D: Diesel Range Organics    |
| Client ID: PBS                 | Batch ID: 31157          | RunNo: 42017   |
| Prep Date: 4/10/2017           | Analysis Date: 4/11/2017 | SeqNo: 1319775 Units: %Rec                             |
| Analyte                        | Result PQL SPK value     | SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual |
| Surr: DNOP                     | 11 10.00                 | 110 70 130   |
| Sample ID MB-31175             | SampType: MBLK           | TestCode: EPA Method 8015M/D: Diesel Range Organics    |
| Client ID: PBS                 | Batch ID: 31175          | RunNo: <b>42017</b>                                    |
| Prep Date: 4/11/2017           | Analysis Date: 4/11/2017 | SeqNo: 1319776 Units: mg/Kg                            |
| Analyte                        | Result PQL SPK value     | SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual |
| Diesel Range Organics (DRO)    | ND 10                    |  |
| Motor Oil Range Organics (MRO) | ND 50                    |  |

10.00

11

### Qualifiers:

Surr: DNOP

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

111

70

130

Analyte detected below quantitation limits

Page 3 of 5

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1704366 12-Apr-17

Client:

(

Blagg Engineering

Project:

Analyte

GCU 219

Sample ID MB-31164

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Batch ID: 31164

RunNo: 42032

Prep Date: 4/10/2017

Analysis Date: 4/11/2017

900

980

SeqNo: 1320307

Units: mg/Kg

150

Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD ND 5.0

Gasoline Range Organics (GRO) Surr: BFB

**RPDLimit** 

1000

90.4

54

Qual

Sample ID LCS-31164

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: Prep Date: 4/10/2017

LCSS

Batch ID: 31164

RunNo: 42032 Analysis Date: 4/11/2017

SeqNo: 1320310

Units: mg/Kg

**RPDLimit** 

%RPD SPK value SPK Ref Val %REC Analyte Result PQL LowLimit **HighLimit** Gasoline Range Organics (GRO) 23 5.0 25.00 93.2 125

Surr: BFB

1000

97.9

76.4 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
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 4 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit

Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1704366

12-Apr-17

Client:

Blagg Engineering

Project:

GCU 219

| Sample ID MB-31164         | SampType: MBLK                                      |              |                | TestCode: EPA Method 8021B: Volatiles |          |             |             |      |          |      |
|----------------------------|---|--------------|----------------|---------------------------------------|----------|-------------|-------------|------|----------|------|
| Client ID: PBS             | Batch ID: 31164                                     |              | RunNo: 42032   |                                       |          |             |             |      |          |      |
| Prep Date: 4/10/2017       | Analysis Date: 4/11/2017                            |              | SeqNo: 1320337 |                                       |          | 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 | 1.1   | - 0. (0.00.) | 1.000          |                                       | 113      | 66.6        | 132         |      |          |      |
| Sample ID LCS-31164        | SampType: LCS TestCode: EPA Method 8021B: Volatiles |              |                |                                       |          |             |             |      |          |      |
| Client ID: LCSS            | Batch   | 1D: 31       | 164            | F                                     | RunNo: 4 | 2032        |             |      |          |      |
| Prep Date: 4/10/2017       | Analysis D  | ate: 4/      | 11/2017        | 8                                     | SeqNo: 1 | 320338      | Units: mg/K | g    |          |      |

| Client ID: LCSS            | Batch ID: 31164          |       |           | F           | kunno: 4 | 2032     |              |      |          |      |
|----------------------------|--------------------------|-------|-----------|-------------|----------|----------|--------------|------|----------|------|
| Prep Date: 4/10/2017       | Analysis Date: 4/11/2017 |       |           | S           | SeqNo: 1 | 320338   | Units: mg/Kg |      |          |      |
| Analyte                    | Result                   | PQL   | SPK value | SPK Ref Val | %REC     | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | 1.1                      | 0.025 | 1.000     | 0           | 112      | 80       | 120          |      |          |      |
| Toluene                    | 1.0                      | 0.050 | 1.000     | 0           | 102      | 80       | 120          |      |          |      |
| Ethylbenzene               | 1.0                      | 0.050 | 1.000     | 0           | 101      | 80       | 120          |      |          |      |
| Xylenes, Total             | 2.8                      | 0.10  | 3.000     | 0           | 93.2     | 80       | 120          |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.1                      |       | 1.000     |             | 114      | 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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 5



### 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  | Client Name: BLAGG Work Order Number |  |                        |   |  | RcptNo: 1       |                      |  |
|---|--------------------------------------|--|------------------------|---|--|-----------------|----------------------|--|
| Received By: Anne The   | orne 4/11/2                          | 017 7:15:00 AM   |                        | an  | Show   | _               |                      |  |
| Completed By: Anne The  | orne 4/11/2                          | 017 8:07:05 AM   |                        | Den   | 1  | _               |                      |  |
| Reviewed By: 4  | 041                                  | 11/17  |                        | O(FFA   |  |                 |                      |  |
| Chain of Custody  |                                      |  |                        |   |  |                 |                      |  |
| 1. Custody seals intact on  |                                      | Yes [  | □ Ne                   | o 🗆   | Not Present  |                 |                      |  |
| 2. Is Chain of Custody complete?  |                                      |  |                        | <b>∠</b> No   |  | Not Present     |                      |  |
| 3. How was the sample delivered?  |                                      |  |                        | r.  |  |                 |                      |  |
| Log In  | *                                    |  |                        |   |  |                 |                      |  |
| 4. Was an attempt made to cool the samples?   |                                      |  |                        | <b>✓</b> N  | o 🗆  | NA 🗆            |                      |  |
| 5. Were all samples received at a temperature of >0° C to 6.0°C                         |                                      |  |                        | no No   |  | NA 🗆            |                      |  |
| 6. Sample(s) in proper container(s)?  |                                      |  |                        | <b>✓</b> N  | o 🗆  |                 |                      |  |
| 7. Sufficient sample volume for indicated test(s)?                                      |                                      |  |                        | Z No  |  |                 |                      |  |
| 8. Are samples (except VOA and ONG) properly preserved?                                 |                                      |  | Yes 5                  | <b>∠</b> No   |  |                 |                      |  |
| 9. Was preservative added to bottles?   |                                      |  |                        | _ No  | <b>V</b>   | NA 🗆            |                      |  |
| 10.VOA vials have zero headspace?   |                                      |  |                        | □ No  |  | No VOA Vials    |                      |  |
| 11. Were any sample conta   |                                      | Yes  | _ N                    | o 🗹 [   | # of preserved   |                 |                      |  |
|   |                                      |  | Yes 5                  |   |  | bottles checked |                      |  |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)        |                                      |  |                        | ∠ No  | • 🗆  | for pH:         | or >12 unless noted) |  |
| 13. Are matrices correctly identified on Chain of Custody?                              |                                      |  | Yes 5                  | <b>∠</b> No   |  | Adjusted?       |                      |  |
| 14, Is it clear what analyses were requested?   |                                      |  | Yes 5                  | / No  |  |                 |                      |  |
| 15. Were all holding times able to be met?  (If no, notify customer for authorization.) |                                      |  | Yes 5                  | Z No  | • 🗆 [  | Checked by:     |                      |  |
| (ii iio, iiotiiy odotoiiioi io  | addionization.                       |  |                        |   |  |                 |                      |  |
| Special Handling (if ap   | oplicable)                           |  |                        |   |  |                 |                      |  |
| 16. Was client notified of all discrepancies with this order?                           |                                      |  |                        | □ No  |  | NA 🗹            | _                    |  |
| Person Notified:  |                                      | Date   | eletini (A. Marietini) | THE COLUMN TWO IS NOT THE OWNER, THE COLUMN TWO IS NOT THE OWNER, THE COLUMN TWO IS NOT THE OWNER, THE COLUMN TWO IS NOT THE COLUMN TWO IS NOT THE OWNER, | RESIDENCE AND STATE OF THE STAT |                 |                      |  |
| By Whom:  |                                      | Via:   | eMail                  | Phone [   | Fax  | ☐ In Person     |                      |  |
| Regarding:  |                                      |  |                        |   |  |                 |                      |  |
| Client Instructions:  |                                      | CASC CONTRACTOR OF THE PROPERTY OF THE PROPERT |                        |   |  |                 |                      |  |
| 17. Additional remarks:   |                                      |  |                        |   |  |                 | _                    |  |
| 18. <u>Cooler Information</u>   <u>Cooler No</u>   <u>Temp %</u>   1.0                  | C Condition Seal Intac<br>Good Yes   | t Seal No Se   | eal Date               | Signed  | Ву   |                 |                      |  |

# 505-947-9900 EP AMERICA PRODUCTION COMPANY GALLEGOS CANYON UNIT 219 API 3004511629 LEASE NMNM78391C 990 FNL 790 FEL (A) SEC 23 T28N R12W San Juan County ELEV 5822 LAT 36" 39" 7.920" LONG 108" 4" 29.244"

