| * | · · · · |
|---|---|
| | District 1 |
| | 1625 N. French Dr., Hobbs, NM 88240 |
| | District H |
| | 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 |

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

| Pit, Below-Grade Tank, or |
|--|
| Proposed Alternative Method Permit or Closure Plan Application |
| Type of action: Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method 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: 380 North Airport Road, Durango, CO 81303 |
| Facility or well name: GCU 390 |
| API Number: 3004528309 OCD Permit Number: |
| API Number: 3004528309 OCD Permit Number: U/L or Qtr/Qtr N Section 23 Township 29N Range 13W County: San Juan Center of Proposed Design: Latitude 36.70523 Longitude -108.17944 NAD83 |
| Center of Proposed Design: Latitude 36.70523 Longitude -108.17944 NAD83 |
| 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: Lx Wx D |
| 3. TANK A |
| Below-grade talk. Subsection 1 of 19.13.17.11 NMAC |
| Volume: 95 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/ Single bottom; sidewalls visible |
| Liner type: Thickness mil 		 HDPE 		 PVC 		 Other |
| 4. Alternative Method: |
| Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. |
| 5. <u>Fencing</u> : 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 (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>) |
| Four foot height, four strands of barbed wire evenly spaced between one and four feet |
| Alternate. Please specify |
| |
| Form C-144 Oil Conservation Division AUG 3 0 2018 Page 1 of 6 |
| DISTRICT III |

6.

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

Screen Netting Other

Monthly inspections (If netting or screening is not physically feasible)

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. <u>Siting Criteria (regarding permitting)</u> : 19.15.17.10 NMAC <i>Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptate material are provided below.</i> 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 ☐ NA |
| Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No ☐ NA |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) Written confirmation or verification from the municipality; Written approval obtained from the municipality | 🗌 Yes 🗌 No |
| Within the area overlying a subsurface mine. (Does not apply to below grade tanks) Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | 🗌 Yes 🗌 No |
| Within an unstable area. (Does not apply to below grade tanks) Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | 🗌 Yes 🗌 No |
| Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map | Yes No |
| Below Grade Tanks | |
| Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |
| Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |
| Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter) | |
| Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |
| Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | 🗌 Yes 🗌 No |
| Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |

| Within 100 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | Yes No |
|---|-------------------------|
| Temporary Pit Non-low chloride drilling fluid | |
| Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site | □ Yes □ No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | Yes No |
| Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |
| Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | Yes No |
| Permanent Pit or Multi-Well Fluid Management Pit | |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). | |
| - Topographic map; Visual inspection (certification) of the proposed site | Yes No |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | 🗌 Yes 🗌 No |
| Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. | |
| - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | Yes No |
| Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | 🗌 Yes 🗌 No |
| 10. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 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: | 9 NMAC .15.17.9 NMAC |
| 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 do attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC 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: | 9.15.17.9 NMAC |
| I reviously Approved Design (and e copy of design) Ar reducter. | |

| 12. | |
|--|--|
| Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the bo attached. | x, that the documents are |
| Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC | |
| Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC | |
| Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC | |
| Nuisance or Hazardous Odors, including H₂S, Prevention Plan Emergency Response Plan | |
| Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan | |
| Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMA | С |
| ^{13.} <u>Proposed Closure</u> : 19.15.17.13 NMAC <i>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</i> | |
| Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank M Alternative | ulti-well Fluid Management Pit |
| Proposed Closure Method: Waste Excavation and Removal Waste Removal Vaste Removal On-site Closure Method (Only for temporary pits and closed-loop systems) | |
| In-place Burial On-site Trench Burial Alternative Closure Method | |
| Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following item 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 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 Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 | NMAC |
| ^{15.} Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of accep provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equi 19.15.17.10 NMAC for guidance. | ptable source material are valency. Please refer to |
| Ground water is less than 25 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | □ Yes □ No □ NA |
| Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☐ No ☐ NA |
| 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 ☐ NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site | playa 🗌 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 | on. 🗌 Yes 🗌 No |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in a at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | existence Ves 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 ord | linance |

| · · · | | | |
|--|--------------------------------------|--|--|
| adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality | Yes No | | |
| Within the area overlying a subsurface mine.Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | 🗌 Yes 🗌 No | | |
| Within an unstable area. | | | |
| Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | Yes No | | |
| Within a 100-year floodplain. | | | |
| - FEMA map | Yes No | | |
| ^{16.} <u>On-Site Closure Plan Checklist</u>: (19.15.17.13 NMAC) <i>Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.</i> Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 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 achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC | | | |
| 17. Operator Application Certification: | | | |
| I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and believed. | ef. | | |
| | | | |
| Name (Print): Title: | | | |
| Signature: Date: | | | |
| e-mail address: Telephone: | | | |
| 18. <u>OCD Approva</u> l: Permit Application (including closure plan) Closure Plan (only). OCD Conditions (see attachment) | | | |
| | 1220 | | |
| OCD Representative Signature: Approval Date:O | <u>el 2018</u> | | |
| Title: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. Closure Completion Date: 7/1/2018 | the closure report. complete this | | |
| 20. Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loo If different from approved plan, please explain. | | | |
| | op systems only) | | |
| 21. <u>Closure Report Attachment Checklist</u>: Instructions: Each of the following items must be attached to the closure report. Please indimark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude 36.70523 Longitude -108.17944 NAD: [1927] | | | |

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 Dunman

22.

Signature:

Title: Field Environmental Coordinator

Erin Dunman

e-mail address: erin.dunman@bpx.com

Date: August 29, 2018

Telephone: (832) 609-7048

BP AMERICA PRODUCTION COMPANY SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

GCU 390

API No. 3004528309

Unit Letter N Section 23 T 29N R 13W

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

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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.

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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 |
|--------------|---|----------------------|---------|
| | 95 bbl BGT | (mg/Kg) | results |
| Benzene | US EPA Method SW-846 8021B or 8260B | 10 | < 0.020 |
| Total BTEX | US EPA Method SW-846 8021B or 8260B | 50 | < 0.079 |
| TPH | US EPA Method SW-846 418.1 or 8015 extended | 100 | <50 |
| Chlorides | US EPA Method 300.0 or 4500B | 620 | 40 |

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.

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.

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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. 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 and BGT location's surface condition is clear. 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 area has been backfilled and BGT location's surface condition is clear. 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 area has been backfilled and BGT location's surface condition is clear. 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 area has been backfilled and BGT location's surface condition is clear. 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 area has been backfilled and BGT location's surface condition is clear. 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

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- 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.

District⁴1 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

| Incident ID | |
|----------------|--|
| District RP | |
| Facility ID | |
| Application ID | |

Release Notification

Responsible Party

| Responsible Party BP America Production Company | OGRID 778 | |
|--|----------------------------------|--|
| Contact Name Erin Dunman | Contact Telephone (832) 609-7048 | |
| Contact email erin.dunman@bpx.com | Incident # (assigned by OCD) | |
| Contact mailing address 380 North Airport Road, Durang | go, CO 81303 | |

Location of Release Source

Latitude 36.70523

(NAD 83 in decimal degrees to 5 decimal places) -108.17944

| Site Name GCU 390 | Site Type Natural Gas Well Site | |
|-------------------------|---------------------------------|--|
| Date Release Discovered | API# (if applicable) 3004528309 | |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|----------|
| N | 23 | 29N | 13W | San Juan |

Surface Owner: State Federal Tribal Private (Name:

Nature and Volume of Release

| Materia | al(s) Released (Select all that apply and attach calculations or specific | justification for the volumes provided below) |
|------------------------|--|---|
| Crude Oil | Volume Released (bbls) | Volume Recovered (bbls) |
| Produced Water | Volume Released (bbls) | Volume Recovered (bbls) |
| | Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l? | Yes No |
| Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| 🗌 Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |
| Cause of Release No re | lease. This is for BGT closure. | |
| | | |
| | | |
| | | |

Form $C_{\overline{4}}$ 141 Page 2 State of New Mexico Oil Conservation Division

| Incident ID | |
|----------------|--|
| District RP | |
| Facility ID | |
| Application ID | |

| Was this a major release as defined by | If YES, for what reason(s) does the responsible party consider this a major release? |
|--|---|
| 19.15.29.7(A) NMAC? | |
| Yes No | |
| | |
| | |
| If YES, was immediate ne | otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? |
| | |
| | |

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

| Printed Name: | Title: |
|---------------|------------|
| Signature: | Date: |
| email: | Telephone: |
| | |
| OCD Only | |
| Received by: | Date: |

Form $C_{\overline{t}}$ 141 Page 3 State of New Mexico Oil Conservation Division

| Incident ID | |
|----------------|--|
| District RP | |
| Facility ID | |
| Application ID | |

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| What is the shallowest depth to groundwater beneath the area affected by the release? | (ft bgs) |
|---|------------|
| Did this release impact groundwater or surface water? | Yes No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release 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? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within 300 feet of a wetland? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release overlying a subsurface mine? | Yes No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | 🗌 Yes 🗌 No |
| Are the lateral extents of the release within a 100-year floodplain? | 🗌 Yes 🗌 No |
| Did the release impact areas not on an exploration, development, production, or storage site? | 🗌 Yes 🗌 No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
 Field data

Data table of soil contaminant concentration data

- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

| Form C ₇ 141 Page 4 | State of New Mexico Oil Conservation Division | | Incident ID District RP Facility ID Application ID | |
|--|--|---|--|--|
| regulations all operators are rec public health or the environmen failed to adequately investigate | ation given above is true and complete to the quired to report and/or file certain release noti nt. The acceptance of a C-141 report by the C e and remediate contamination that pose a thre C-141 report does not relieve the operator of | fications and perform co OCD does not relieve the eat to groundwater, surface | prective actions for rele operator of liability sho ce water, human health | eases which may endanger ould their operations have or the environment. In |
| Printed Name: | | Title: | | |
| Signature: | | Date: | | |
| email: | | Telephone: | | |
| OCD Only | | | | |
| Received by: | | Date: | | |

Form C₇141 Page 5 State of New Mexico Oil Conservation Division

| Incident ID | |
|----------------|--|
| District RP | |
| Facility ID | |
| Application ID | |

Remediation Plan

| Remediation Plan Checklist: Each of the following items must be included in the plan. | | |
|--|--|--|
| Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) | | |
| Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. | | |
| Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. | | |
| Extents of contamination must be fully delineated. | | |
| Contamination does not cause an imminent risk to human health, the environment, or groundwater. | | |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. | | |
| Printed Name: Title: | | |
| Signature: Date: | | |
| email: Telephone: | | |
| | | |
| OCD Only | | |
| Received by: Date: | | |
| Approved Approved with Attached Conditions of Approval Denied Deferral Approved | | |
| Signature: Date: | | |

Form C-141 Page 6 State of New Mexico Oil Conservation Division

| Incident ID | |
|----------------|--|
| District RP | |
| Facility ID | |
| Application ID | |

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

 Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

 A scaled site and sampling diagram as described in 19.15.29.11 NMAC

 Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

 Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

 Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

| Printed Name: Erin Dunman | Title: Field Environmental Coordinator | |
|---|--|--|
| Signature: Erin Dunman | Date: August 29, 2018 | |
| email: erin.dunman@bpx.com | Date: <u>August 29, 2018</u> Telephone: <u>(832) 609-7048</u> | |
| | | |
| | | |
| OCD Only | | |
| Received by: | Date: | |
| Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. | | |
| Closure Approved by: | Date: | |
| Printed Name: | Title: | |



BP America Production Company 380 Airport Rd Durango, CO 81303 Phone: (970) 247 6800

June 22, 2018

bp

1 4

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 390 API# - 3004528309

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 27, 2018. 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 (832)-609-7048.

Sincerely,

Erin Garifalos

BP America Production Company

Erin Dunman

1

| From: | Farrah Buckley |
|----------|---|
| Sent: | Friday, June 22, 2018 12:32 PM |
| То: | Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us) |
| Cc: | jeffcblagg@aol.com; blagg_njv@yahoo.com; Erin Garifalos |
| Subject: | RE: BP Pit Close Notification - GCU 390 |

external-email:

0

BP America Production Company 380 Airport Rd Durango, CO 81303 Phone: (970) 247 6800

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

June 22, 2018

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 390 API# 30-045-28309 (N) Section 23 – 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 27, 2018.

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

Sincerely,

1 . C . +

Erin Garifalos

Field Environmental Coordinator – San Juan Cell: 832-609-7048

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

Note new email address – Farrah.buckley@bpx.com

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 | | G ENGINEERI 7, BLOOMFIE (505) 632-119 | LD, NM 87413 | | API #: 300452 TANK ID (if applicble): | |
|--|---------------------------|---|--------------------------------------|-----------|---|----------------|
| FIELD REPORT: | (circle one): BGT CONFIRM | ATION / RELEASE INVESTI | GATION / OTHER: | | PAGE #:1 | of 1 |
| SITE INFORMATION | SITE NAME: GC | U # 390 | | | DATE STARTED: 06/ | 27/18 |
| QUAD/UNIT: N SEC: 23 TWP: | 29N RNG: 13W | PM: NM CNT | Y: SJ ST: N | IM | DATE FINISHED: | |
| 1/4 -1/4/FOOTAGE: 245'S / 1,53 | O'W SE/SW | EASE TYPE: FEDERAL | STATE / FEE / INDI | AN | ENVIRONMENTAL | |
| LEASE #: NM03654 | PROD. FORMATION: F | T CONTRACTOR: B | TRIKE | | | JV |
| REFERENCE POINT | WELL HEAD (W.I | H.) GPS COORD.: | | 7951 | GL ELEV.: | 5.645' |
| 1) 95 BGT (SW/SB) | GPS COORD.: | | | | RING FROM W.H.: 47.5', | - |
| 2) | GPS COORD.: | | | | RING FROM W.H.: | |
| 3) | GPS COORD.: | | DIST | NCE/BEAF | RING FROM W.H.: | |
| 4) | GPS COORD .: | | DIST | NCE/BEAF | RING FROM W.H.: | |
| SAMPLING DATA: | CHAIN OF CUSTODY RECOR | RD(S) # OR LAB USED: | HALL | | | OVM READING |
| 1) SAMPLE ID: 5PC - TB @ 4' | (95) SAMPLE DATE: | 06/27/18 SAMPLE TIME: | | 801 | 5B/8021B/300.0 (CI) | (ppm) NA |
| 2) SAMPLE ID: | SAMPLE DATE: | SAMPLE TIME: | LAB ANALYSIS: | | | |
| 3) SAMPLE ID: | | | | | | |
| 4) SAMPLE ID: 5) SAMPLE ID: | | SAMPLE TIME: | | | | |
| SOIL DESCRIPTION | | | | | PROVAN | |
| SOIL COLOR: MOSTLY PALE | | | | | DHESIVE MEDIUM PLASTIC / HIG | |
| COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY | | | | | STIFF VERY STIFF / HARD | ILT FLASTIC |
| CONSISTENCY (NON COHESIVE SOILS): LC | | | D: YES NO EXPLANATION | | | |
| MOISTURE: DRY SLIGHTLY MOIST MOIST W SAMPLE TYPE: GRAB (COMPOSITE) # | | | | _ | | |
| DISCOLORATION/STAINING OBSERVED: YES | | ANY AREAS DISPLA | YING WETNESS: YES NO | EXPLAN | ATION - | |
| SITE OBSERVATION | | | TION - | | | |
| APPARENT EVIDENCE OF A RELEASE OBSERVE | | | | | | |
| EQUIPMENT SET OVER RECLAIMED AREA: | YES NO EXPLANATION - | | | | | |
| OTHER: MMOCD OR BLM REPS. NOT PR PLUGGED & ABANDONED. | ESENT TO WITNESS CON | FIRMATION SAMPLING. | BGT - 15 FT. DIAMETE | r, low | PROFILE. GAS WELL TO |) BE |
| EXCAVATION DIMENSION ESTIMATION: | NA ft. X | NA ft. X NA | ft. EXCAVATIO | ON EST | IMATION (Cubic Yards) : | NA |
| DEPTH TO GROUNDWATER: >50' / <100' N | EAREST WATER SOURCE: | •1,000' NEAREST SURFA | ACE WATER: >300' / <1,(| 00' N | MOCD TPH CLOSURE STD: | 2,500 ppm |
| SITE SKETCH | BGT Located : off | on site PLOT PI | AN circle: attached | OVMO | CALIB. READ. = NA p | om RF = 1.00 |
| | ~ ⊕ ₩. Ħ. | | | | | om |
| PUMP JACK | | | N | TIME: | | NA |
| * | | | | | MISCELL. NO | TES |
| 4 | <u> </u> | | | w | | |
| | B | ERM | | | EF #: P-985 | |
| | | SEFARATOR | | VI | | > |
| | (xx) | | | _ | J#: | |
| | X X | | | Pe | rmit date(s): 06/0 | 8/10 |
| | GTL | FENCE | | | CD Appr. date(s): 02/2 | 6/18 |
| В | .G. | | | Tan ID | k OVM = Organic Vapor Me ppm = parts per million | ter |
| | | | | A | BGT Sidewalls Visible: Y/ | N |
| | | | X - S.P.D | | BGT Sidewalls Visible: Y / | |
| NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATIO | | | ~ = APPROX.; W.H. = WELL HEAD |); | BGT Sidewalls Visible: Y / | |
| T.B. = TANK BOTTOM; PBGTL = PREVIOUS BEL APPLICABLE OR NOT AVAILABLE; SW - SINGLE | | | | Ma | agnetic declination: 10 |) <u> </u> |
| NOTES: GOOGLE EARTH IMAGE | RY DATE: 2018 GOO | GLE. ONSITE | 06/27/18 | | | |

revised: 11/26/13

BEI1005E-6.SKF

| Hall Environmental Analysis | Laboratory, | Inc. | | | Lab Order 1806G73 Date Reported: 7/1/2018 | } | | |
|---|--|--------|-----------|----|--|--------|--|--|
| CLIENT: Blagg Engineering Project: GCU 390 | | | | | C-TB @ 4' (95) 7/2018 9:10:00 AM | | | |
| Lab ID: 1806G73-001 | Matrix: SOIL Received Date: 6/28/2018 7:00:00 AM | | | | | | | |
| Analyses | Result | PQL Qu | ual Units | DF | Date Analyzed | Batch | | |
| EPA METHOD 300.0: ANIONS | | | | | Analyst: | smb | | |
| Chloride | 40 | 30 | mg/Kg | 20 | 6/28/2018 11:53:21 AM | 38944 | | |
| EPA METHOD 8015D MOD: GASOLINE RA | NGE | | | | Analyst: | AG | | |
| Gasoline Range Organics (GRO) | ND | 3.9 | mg/Kg | 1 | 6/28/2018 12:30:57 PM | A52327 | | |
| Surr: BFB | 115 | 70-130 | %Rec | 1 | 6/28/2018 12:30:57 PM | A52327 | | |
| EPA METHOD 8015M/D: DIESEL RANGE | ORGANICS | | | | Analyst: | Irm | | |
| Diesel Range Organics (DRO) | ND | 10 | mg/Kg | 1 | 6/28/2018 12:09:56 PM | 38939 | | |
| Motor Oil Range Organics (MRO) | ND | 50 | mg/Kg | 1 | 6/28/2018 12:09:56 PM | 38939 | | |
| Surr: DNOP | 98.7 | 70-130 | %Rec | 1 | 6/28/2018 12:09:56 PM | 38939 | | |
| EPA METHOD 8260B: VOLATILES SHORT | LIST | | | | Analyst: | AG | | |
| Benzene | ND | 0.020 | mg/Kg | 1 | 6/28/2018 12:30:57 PM | R5232 | | |
| Toluene | ND | 0.039 | mg/Kg | 1 | 6/28/2018 12:30:57 PM | R5232 | | |
| Ethylbenzene | ND | 0.039 | mg/Kg | 1 | 6/28/2018 12:30:57 PM | R5232 | | |
| Xylenes, Total | ND | 0.079 | mg/Kg | 1 | 6/28/2018 12:30:57 PM | R5232 | | |
| Surr: 4-Bromofluorobenzene | 128 | 70-130 | %Rec | 1 | 6/28/2018 12:30:57 PM | R5232 | | |

99.9

70-130

Analytical Report

%Rec 1 6/28/2018 12:30:57 PM R52327

+ v. +

Surr: Toluene-d8

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 | RL | Reporting Detection Limit |
| | S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

| C | hain-o | of-Cus | tody Record | Turn-Around T | ime: | SAME | | | | | | | | BIN/ | | 20 | | | | | ، ب |
|------------------|---------|------------|--|---------------|----------------------|-------------------------------|--------------|------------------------|----------------------|-------------------------|--------------------|------------------------|--------------------|---|------------------------|-------------|-----------------|--------------------------------|------|-------------|--|
| Client: | | | / BP AMERICA | Standard | (Rush _ | DAY) | | | | | | | | | | | | | | | |
| | | | | Project Name: | | | | | | | | | | | | | .com | | | | . 1 |
| Mailing A | ddress: | P.O. BO | X 87 | | GCU #39 | 0 | | 100 | 11 [] | awki | | | | | | | | | 0 | | |
| | | | FIELD, NM 87413 | Project #: | | | | | |)5-34 | | | | | | | -410 | | 9 | | |
| Phone #: | | (505) 63 | | | | | | Ter | . 30 | 13-34 | -5-5 | | and the local data | ysis | an an aire | | | , | | | |
| email or F | ax#: | (000) 00 | | Project Manag | er: | | | | | | | | | | | | | ~ | | | 1000 |
| QA/QC Par | | | Level 4 (Full Validation) | | ERIN GARI | FALOS | (80218) | only) | / MRO) | | | S) | | 04,504 | PCB's | | | er - 300.1) | | | |
| Accreditat | | | | Sampler: | NELSON VI | ELEZ | s (80 | Gas | 30/ | F | 1 | SIM | | 0 ₂ , P | 082 | | | wate | | | nple |
| | 0 | Other | and the second | On Ice: | 🖉 Yes | □ No | | Hd | IQ/O | 118. | 504. | 3270 | | 03,N | s / 8 | | (A) | 0.00 | | | e sar |
| | Гуре) | T* | | | erature 🤉 🖇 🍾 | E-locis | Ţ | + | (GRC | po | po | or | etals | CI,NC | cide | (A) | -VO | il - 3(| | e | Osit (Y or |
| Date | Time | Matrix | Sample Request ID | Type and # | Preservative Type | HEAL NO. | BTEX + MTB | BTEX + MTBE + TPH (Gas | TPH 80158 (GRO / DRO | TPH (Method 418.1) | EDB (Method 504.1) | PAH (8310 or 8270SIMS) | RCRA 8 Metals | Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) | 8081 Pesticides / 8082 | 8260B (VOA) | 8270 (Semi-VOA) | Chloride (soil - 300.0 / water | | Grab sample | 5 pt. composite sample Air Bubbles (Y or N) |
| 6/27/18 | 0910 | SOIL | 5PC - ТВ @ Ц ¹ (95) | 4 oz 1 | Cool | 105 | V | | ٧ | | | | | | | | | V | | | V |
| | | | | | | | | | | | | | | | | | | | | | |
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| Brooks see . | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | - | | | | | | | | | | | | |
| | | | | | | | | | _ | | - | | | | | - | | | | | |
| Date: 6/27/18 | Time: | Relinquish | ad by: hrvj | Received by: | - Jack | Date Time | | arks: | | BILL D & REF ERIN | EREN | ICE # | WHE | N APP | LICA | BLE; | | VITH C | ORRE | SPON | DING VID |
| Date: | Time: | Relinquish | ad by: | Received by | | Date Time 84/28/18 0700 | | | /ID: | VHIX | | EVB2 | | , 14 | NUCE | MAL | | | | | |
| | | 1.00 | mu | | | | | | | | | | 1-1-1 | 211.1 | | | | | | | |

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

Blagg Engineering **Client:** GCU 390 **Project:**

| Sample ID MB-38944 | SampType: MBLK | TestCode: EPA Method | 300.0: Anions | |
|--|----------------------------------|--|-------------------------------|---------------|
| Client ID: PBS | Batch ID: 38944 | RunNo: 52323 | | |
| Prep Date: 6/28/2018 | Analysis Date: 6/28/2018 | SeqNo: 1716138 | Units: mg/Kg | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %RPD | RPDLimit Qual |
| Chloride | ND 1.5 | | | |
| | 110 | | | |
| Sample ID LCS-38944 | SampType: LCS | TestCode: EPA Method | 300.0: Anions | |
| | | TestCode: EPA Method RunNo: 52323 | 300.0: Anions | |
| Sample ID LCS-38944 | SampType: LCS | | 300.0: Anions Units: mg/Kg | |
| Sample ID LCS-38944 Client ID: LCSS | SampType: LCS Batch ID: 38944 | RunNo: 52323 SeqNo: 1716139 | | RPDLimit Qual |

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- Practical Quanitative Limit PQL
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified W

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| Client: Blagg En Project: GCU 39 | ngineering 0 | | | | | | | | | |
|-------------------------------------|-----------------|---------|-----------|-------------|----------|-----------|--------------|------------|------------|------|
| Sample ID MB-38939 | SampT | ype: ME | BLK | Tes | tCode: E | PA Method | 8015M/D: Die | esel Rang | e Organics | |
| Client ID: PBS | Batch | D: 38 | 939 | F | RunNo: 5 | 2311 | | | | |
| Prep Date: 6/28/2018 | Analysis D | ate: 6/ | 28/2018 | S | SeqNo: 1 | 714246 | Units: mg/K | g | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 9.1 | | 10.00 | | 91.2 | 70 | 130 | | | |
| Sample ID LCS-38939 | SampT | ype: LC | S | Tes | tCode: E | PA Method | 8015M/D: Die | esel Range | e Organics | |
| Client ID: LCSS | Batch | ID: 38 | 939 | F | RunNo: 5 | 2311 | | | | |
| Prep Date: 6/28/2018 | Analysis D | ate: 6/ | 28/2018 | S | SeqNo: 1 | 714477 | Units: mg/K | g | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 50 | 10 | 50.00 | 0 | 101 | 70 | 130 | | | |
| Surr: DNOP | 4.3 | | 5.000 | | 86.3 | 70 | 130 | | | |

Qualifiers:

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

Blagg Engineering **Client:** Pro

| lenter | Drugg Engineering | |
|--------|-------------------|--|
| oject: | GCU 390 | |
| | | |

| | | | | The second se | | | | | | |
|--|---|---|------------------------------|---|--|---|--|-------------|--|------|
| Sample ID 100ng btex lcs | SampT | SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List | | | | | | | | |
| Client ID: BatchQC | Batch | n ID: R5 | 2327 | F | RunNo: 5 | 2327 | | | | |
| Prep Date: | Analysis D | ate: 6/ | 28/2018 | 5 | SeqNo: 1 | 714706 | Units: mg/K | g | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.99 | 0.025 | 1.000 | 0 | 99.3 | 80 | 120 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 103 | 80 | 120 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 103 | 80 | 120 | | | |
| Xylenes, Total | 2.8 | 0.10 | 3.000 | 0 | 94.7 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 0.49 | | 0.5000 | | 98.1 | 70 | 130 | | | |
| Surr: Toluene-d8 | 0.49 | | 0.5000 | | 98.5 | 70 | 130 | | | |
| | | | | | | and the second se | the second s | | and the second sec | |
| Sample ID rb | SampT | ype: ME | BLK | Tes | tCode: EF | PA Method | 8260B: Volat | tiles Short | List | |
| Sample ID rb Client ID: PBS | | ype: ME 1 ID: R5 | | | tCode: EF | | 8260B: Volat | tiles Short | List | |
| | | 1 ID: R5 | 2327 | F | | 2327 | 8260B: Volat Units: mg/K | | List | |
| Client ID: PBS | Batch | 1 ID: R5 | 2327 28/2018 | F | RunNo: 52 | 2327 | | | List RPDLimit | Qual |
| Client ID: PBS Prep Date: Analyte | Batch Analysis D | n ID: R5 vate: 6/ | 2327 28/2018 | F | RunNo: 5 SeqNo: 1 | 2327 714714 | Units: mg/K | ģ | | Qual |
| Client ID: PBS Prep Date: Analyte Benzene | Batch Analysis D Result | n ID: R5 Pate: 6/ | 2327 28/2018 | F | RunNo: 5 SeqNo: 1 | 2327 714714 | Units: mg/K | ģ | | Qual |
| Client ID: PBS Prep Date: Analyte Benzene Toluene | Batch Analysis D Result ND | n ID: R5 pate: 6 / PQL 0.025 | 2327 28/2018 | F | RunNo: 5 SeqNo: 1 | 2327 714714 | Units: mg/K | ģ | | Qual |
| Client ID: PBS Prep Date: | Batch Analysis D Result ND ND | n ID: R5 pate: 6/ <u>PQL</u> 0.025 0.050 | 2327 28/2018 | F | RunNo: 5 SeqNo: 1 | 2327 714714 | Units: mg/K | ģ | | Qual |
| Client ID: PBS Prep Date: Analyte Benzene Toluene Ethylbenzene | Batch Analysis D Result ND ND ND | DID: R5 Pate: 6 / <u>PQL</u> 0.025 0.050 0.050 | 2327 28/2018 | F | RunNo: 5 SeqNo: 1 | 2327 714714 | Units: mg/K | ģ | | Qual |
| Client ID: PBS Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total | Batch Analysis D Result ND ND ND ND | DID: R5 Pate: 6 / <u>PQL</u> 0.025 0.050 0.050 | 2327 28/2018 SPK value | F | RunNo: 5 ; SeqNo: 1 ; %REC | 2327 714714 LowLimit | Units: mg/K HighLimit | ģ | | Qual |

Qualifiers:

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- S % Recovery outside of range due to dilution or matrix
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Blagg Engineering **Client:** GCU 390 **Project:**

| SampT | ype: LC | S | Tes | tCode: El | PA Method | 8015D Mod: | Gasoline | Range | | |
|------------------------------|-------------------------------------|---|--------------|---|--|--|--|--|---|--|
| Batch | n ID: A5 | 2327 | R | RunNo: 5 | 2327 | | | | | |
| Analysis D | ate: 6/ | 28/2018 | S | SeqNo: 1 | 714696 | Units: mg/M | nits: mg/Kg | | | |
| Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| 28 | 5.0 | 25.00 | 0 | 113 | 70 | 130 | | | | |
| 170 | | | | | | 100 | | | | |
| 470 | | 500.0 | | 94.4 | 70 | 130 | | | | |
| | ype: ME | | Tes | | | 130 8015D Mod: | Gasoline | Range | | |
| SampT | ype: ME | 3LK | | | PA Method | | Gasoline | Range | | |
| SampT | 1D: A5 | 3LK | R | tCode: EF | PA Method 2327 | | | Range | | |
| SampT Batch | 1D: A5 | 3LK 2327 28/2018 | R | tCode: EF | PA Method 2327 | 8015D Mod: | | Range RPDLimit | Qual | |
| SampT Batch Analysis D | n ID: A5 ate: 6/ | 3LK 2327 28/2018 | R | tCode: EF RunNo: 53 SeqNo: 1 | PA Method 2327 714697 | 8015D Mod: Units: mg/K | ζg | 5 | Qual | |
| | Batch Analysis D Result 28 | Batch ID: A5 Analysis Date: 6/ Result PQL 28 5.0 | 28 5.0 25.00 | Batch ID: A52327 F Analysis Date: 6/28/2018 S Result PQL SPK value SPK Ref Val 28 5.0 25.00 0 | Batch ID: A52327 RunNo: 53 Analysis Date: 6/28/2018 SeqNo: 1' Result PQL SPK value SPK Ref Val %REC 28 5.0 25.00 0 113 | Batch ID: A52327 RunNo: 52327 Analysis Date: 6/28/2018 SeqNo: 1714696 Result PQL SPK value SPK Ref Val %REC LowLimit 28 5.0 25.00 0 113 70 | Batch ID: A52327 RunNo: 52327 Analysis Date: 6/28/2018 SeqNo: 1714696 Units: mg/# Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit 28 5.0 25.00 0 113 70 130 | Batch ID: A52327 RunNo: 52327 Analysis Date: 6/28/2018 SeqNo: 1714696 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD 28 5.0 25.00 0 113 70 130 | Batch ID: A52327 RunNo: 52327 Analysis Date: 6/28/2018 SeqNo: 1714696 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit 28 5.0 25.00 0 113 70 130 130 | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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- Holding times for preparation or analysis exceeded Н
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- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
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| HALL ENVIRONMENTAL ANALYSIS LABORATORY | A TEL: 505-345-39 | tal Analysis Labor 4901 Hawkir Ibuquerque, NM 8 75 FAX: 505-345- hallenvironmenta | ns NE 87109 San 4107 | nple Log-In Check List |
|---|--|---|----------------------------|--|
| Client Name: BLAGG | Work Order Numb | er: 1806G73 | | RcptNo: 1 |
| | 6/28/2018 7:00:00 A 6/28/2018 7:42:46 A GZS (1 4 | | Anne Ar Anne Ar | ~ |
| Labeled by ! Ar de 1281 | 107 | | | |
| Chain of Custody 1. Is Chain of Custody complete? 2. How was the sample delivered? | | Yes ⊻ <u>Courier</u> | No 🗌 | Not Present |
| Log In 3. Was an attempt made to cool the sample | \$? | Yes 🗹 | No 🗌 | NA 🗌 |
| 4. Were all samples received at a temperatu | re of >0° C to 6.0°C | Yes 🖌 | No 🗌 | NA 🗌 |
| 5. Sample(s) in proper container(s)? | | Yes 🗹 | No 🗌 | |
| 6. Sufficient sample volume for indicated test | (s)? | Yes 🗹 | No 🗌 | |
| 7. Are samples (except VOA and ONG) prop | erly preserved? | Yes 🗹 | No 🗌 | |
| 8. Was preservative added to bottles? | | Yes | No 🔽 | NA 🗌 |
| 9. VOA vials have zero headspace? | | Yes | No 🗌 | No VOA Vials 🗹 |
| 10. Were any sample containers received bro | ken? | Yes | No 🔽 | # of |
| 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | | Yes 🗹 | No 🗆 | # of preserved bottles checked for pH: (<2 or >12 unless note |
| 12. Are matrices correctly identified on Chain of | of Custody? | Yes 🗹 | No 🗌 | Adjusted? |
| 13. Is it clear what analyses were requested? 14. Were all holding times able to be met? (If no, notify customer for authorization.) | | Yes 🗹 Yes 🗹 | No 🗌 No 🗌 | Checked by: |
| Special Handling (if applicable) | | | | |
| 15. Was client notified of all discrepancies wit | h this order? | Yes | No 🗌 | NA 🗹 |
| Person Notified: By Whom: Regarding: Client Instructions: | Date Via: | eMail F | Phone 🗌 Fax | In Person |
| | Seal Intact Seal No es | Seal Date | Signed By | |

* * *



