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.

160081

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

OIL CONS. DIV DIST. 3

OCT 05 2017

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.

1.
Operator: BP AMERICA PRODUCTION COMPANY OGRID #: 778
Address: 200 Energy Court, Farmington, NM 87401
Facility or well name: FLORANCE GAS COM J 016A
API Number: 3004521790 OCD Permit Number:
U/L or Qtr/Qtr P Section 6.0 Township 30.0N Range 09W County: San Juan County
Center of Proposed Design: Latitude 36.834225 Longitude -107.816653 NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____bbl Dimensions: L_____ x W_____ x D_____

* See Attached GW DATA
Closure Standard Adjusted to meet DATA GW <50'

3.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC **TANK ID: D**
Volume: 95.0 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 DOUBLE WALLED DOUBLE BOTTOMED SIDEWALLS NOT 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.
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_____

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BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

Figure 6
MW # 10

BORE / TEST HOLE REPORT

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: FLORANCE GC J # 16A API #: 3004521790 UNIT P, SEC. 6, T30N, R9W
CONTRACTOR: BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING
EQUIPMENT USED: MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER
BORING LOCATION: 36.83481 N x 107.81602 W (SW OF WILLIAMS EXCAVATION).

BORING #..... BH - 5
MW #..... 10
PAGE #..... 5
DATE STARTED 01/12/2017
DATE FINISHED 01/12/2017
OPERATOR..... SL
LOGGED BY..... JCB

DEPTH (FT.)	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS
					GROUND SURFACE
2	cuttings		33.9		START TIME - 1154 DARK YELLOWISH ORANGE SILTY SAND, MOIST, APPARENT HYDROCARBON (HC) ODOR DETECTED, SOIL POSSIBLY FROM PRIOR REMEDIATED MATERIAL.
4		1156			
6	continuous core				RECOVERED 27"
8			906	1,340	MOTTLED GRAY/DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST, MEDIUM GRAINED WITH SANDSTONE SHARDS, STRONG APPARENT HC ODOR DETECTED.
10		1230			
12			1,188	1,200	RECOVERED 25" DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST, MEDIUM GRAINED WITH SANDSTONE SHARDS, STRONG APPARENT HC ODOR DETECTED.
14		1236			
16			1,450	350	RECOVERED 16" SAA
18		1244			
20			96	12	RECOVERED 14" SAA EXCEPT AT BOTTOM 6" - MINOR BLACK STREAKS.
22		1252			
24					APPROXIMATE GROUNDWATER LEVEL MEASURED 01/17/2017.
26			27.8	ND	RECOVERED 17" TOP 9" - DARK YELLOWISH BROWN SANDSTONE, SATURATED, MINOR BUT APPARENT HC ODOR DETECTED (sampled).
28					BOTTOM 8" - BLUE SHALE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED.
30		1300			RECOVERED 27" BLUE SILTSTONE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED.
32		1311	5.3	62	
34					TOTAL DEPTH - 31.5 FEET
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					
60					

NOTES:
- SILTY SAND / SAND / SANDSTONE.
- SILTSTONE OR SHALE.

OVM - Organic vapor meter or photoionization detector (PID).
ppm - parts per million or milligram per kilogram (mg/Kg).
ND - Not detected at laboratory reporting limit.
SAA - Same as above.
TPH - Total Petroleum Hydrocarbons.
GRO - Gasoline Range Organics; DRO - Diesel Range Organics; MRO - Motor Oil Range Organics.

OVM CALIBRATION:
100.0 ppm; RF = 1.00 (RF = response factor).
100 ppm calibration gas - isobutylene.
Date - 01/12/2017.
Time - 1115.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 26.50 ft. below grade (bg), 0.010 slotted screen between 26.50 to 31.50 ft. bg, 10/20 sand packed annular to 25.0 ft. bg, 60 sand packed annular to 24.0 ft. bg, bentonite chips between 22.0 to 24.0 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade. Secured casing top with steel protector, locking cap, and padlock.

DRAWING: FLORANCE GC J 16A Boring 2017-01-12 (MW 10).SKF | DATE: 01/31/17 | DRAFTED BY: NJV

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)

7.
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

8.
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 acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☒ 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 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are 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 19.15.17.9 NMAC 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: _____

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
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 Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection 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
- ☐ 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 acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
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 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 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	☐ 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. - 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.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection 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 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 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 belief.

Name (Print): Steve Moskal Title: Field Environmental Coordinator

Signature: [signature] Date: 09\29\2017

e-mail address: steven.moskal@bp.com Telephone: 505-326-9497

18.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☒ OCD Conditions (see ~~attachment~~ Front)

OCD Representative Signature: [signature] **Approval Date:** 10/6/17

Title: Environmental Spec. **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. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:**

20.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure 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 _____ Longitude _____ NAD: ☐1927 ☐ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

SITING AND HYDRO-GEOLOGICAL REPORT
FLORANCE GAS COM J 016A - TANK D

Siting Criteria 19.15.17.10 NMAC

Depth to groundwater at the below-grade tank (BGT) is estimated to be greater than 50, but less than 100 feet (ft.). Local topography and proximity to adjacent water features were also considered. Based on a search of the New Mexico State Engineer's Office (attached), there are no freshwater wells or springs used for public or livestock consumption within 200 horizontal ft. of the BGT. A nearby gas well site, namely, the Pierce 250, currently operated by Hilcorp Energy Company has a cathodic ground bed installed by Meridian Oil Company in 1990 and recorded groundwater at approximately 200 ft. below grade (attached). An aerial map provided as Figures 1, demonstrates, that there are no freshwater wells or springs used for public or livestock consumption within 200 feet of the BGT position. A topographic map (Figure 2) demonstrates that the BGT is not within 100 ft. of any continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake as measured from the ordinary high water mark.

Local Geology and Hydrology

Regional topography of Pump Canyon is composed of mesas dissected by deep, narrow canyons and arroyos. The more resistant cliff-forming sandstones of the San Jose Formation cap the interbedded siltstones, shales and sandstones of the Nacimiento Formation. Accumulations of talus and eroded sands at the base of canyon walls form steep to gentle slopes that transition into flat-bottomed arroyos within the canyons. Deposits of Quaternary alluvial and aeolian sands occur prominently near the surface of Pump Canyon, especially near streams and washes.

However, there is no imminent threat to groundwater from either a surficial or subsurface release at this site due to the following: According to the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), soils are primarily a rock outcrop. The Travessilla-Weska complex is a sandy loam occurring 0-9 inches on top of sandstone bedrock. These soils are classified as well drained, meaning that water moves through the soil readily, but not rapidly. A surficial or subsurface release will be readily absorbed by these soils and flow on top of the bedrock.

Regional Geology and Hydrology

The San Juan Basin is situated in the Navajo section of the Colorado Plateau and is characterized by broad open valleys, mesas, buttes and hogbacks. Away from major valleys and canyons topographic relief is generally low. Native vegetation is sparse and shrubby. Drainage is mainly by the San Juan River, the only permanent stream in the Navajo Section of the Colorado Plateau. The San Juan River is a tributary of the Colorado River. Major tributaries include the Animas, Chaco and La Plata Rivers. Flow of the San Juan River across the basin is regulated by the Navajo Dam, located about 30 miles northeast of Farmington, New Mexico. The climate is arid to semiarid with an average annual precipitation of 8 to 10 inches. Soils within the basin consist of weathered parent rock derived from predominantly physical means mostly from eolian depositional system with fluvial having a lesser impact.

Cretaceous and Tertiary sandstones, as well as Quaternary Alluvial deposits, serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). The San Jose Formation of Eocene age occurs in both New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central basin. It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico border and overlies the Animas Formation in the general area north of the State Line. The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone, and shale.

Thickness of the San Jose Formation increases from west to east. Groundwater is associated with alluvial and fluvial sandstone aquifers. The occurrence of groundwater is mainly controlled by distribution of sandstone in the formation. The reported or measured discharge from numerous water wells completed in the formation range from 0.15 to 61 gallons per minute (gpm) and with a median of 5 gpm. Most of the wells provide water for livestock and domestic purposes. The formation is suitable for recharge from precipitation due to overlying soils being sandy, highly permeable and absorbent. Low annual precipitation, relatively high transpiration and evaporation rates and deep dissection of the formation by the San Juan River and its main tributaries all tend to reduce the effective recharge to the formation. Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation of Paleocene age are between 0 and 1000 feet deep in the majority of the basin as well (Stone et al., 1983).

References

Circular 154—Guidebook to coal geology of northwest New Mexico By E. C. Beaumont, J. W. Shomaker, W. J. Stone, and others, 1976

Stone, et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico, Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 60.96

New Mexico Office of the State Engineer
Wells Without Well Log Information

No wells found.

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 60.96

New Mexico Office of the State Engineer

Point of Diversion with Meter Attached

No PODs found.

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 60.96

New Mexico Office of the State Engineer
Wells with Well Log Information

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-basin Code	County	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
SJ 00009		SJ	Shallow	3	06	30N	09W	248261	4080567*	691	03/30/1953	04/05/1953	11/17/1953	396	60	CONLEY COX	

Record Count: 1

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 1609.3

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	SJ 00009			3	06	30N	09W	248261	4080567*

Driller License:		**Driller Company:**			
Driller Name:	CONLEY COX				
Drill Start Date:	03/30/1953	**Drill Finish Date:**	04/05/1953	**Plug Date:**	
Log File Date:	11/17/1953	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.63	**Depth Well:**	396 feet	**Depth Water:**	60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	350	387	Other/Unknown

Casing Perforations:	Top	Bottom
	350	387

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Wells Without Well Log Information

No wells found.

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 1609.3

New Mexico Office of the State Engineer

Point of Diversion with Meter Attached

No PODs found.

Basin/County Search:

Basin: San Juan **County:** San Juan

UTMNAD83 Radius Search (in meters):

Easting (X): 248837.13 **Northing (Y):** 4080185.1 **Radius:** 1609.3

1= 30-045-09501

250= 30-045-27018

4949

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit A Sec. 7 Twp 30 Rng 9

Name of Well/Wells or Pipeline Serviced PIERCE #1, PIERCE #250

cps 45w

Elevation 6364 Completion Date 7/23/90 Total Depth 500' Land Type* N/A

Casing, Sizes, Types & Depths 20' OF 8" PVC SET

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 200' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 3800 lbs ASHBURY PETROLEUM COKE

Depths anodes placed: 450', 443', 436', 429', 422', 415', 400', 390', 380', 331'

Depths vent pipes placed: 500' 1" VENT PIPE

Vent pipe perforations: 300'

Remarks: cgb #3

RECEIVED
MAY 31 1991
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

FM-070238 (Rev 10-82)

#5

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Drilling Log (Attach Hereto) ☑ Completion Date 7-23-90

CPS #	Well Name, Line or Plant	Work Order #	Static	Ins Union Check
45-W	PIERCE #3 PIERCO #250			☑ Good ☐ Bad

Location	Anode Size	Anode Type	Size Bit
A7-30-9	2" X 60"	ANOTEC	6 3/4

Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs Coke Used	Lost Circulation Mat'l Used	No Sacks Mud Used
500	455		3800	5	12

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	450	443	436	429	422	415	400	390	380	331
Anode Output (Amps)	1.5	1.7	1.7	1.7	1.7	1.7	1.5	1.5	1.6	1.1

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance				No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.5	Amps 23.6	Ohms .52			

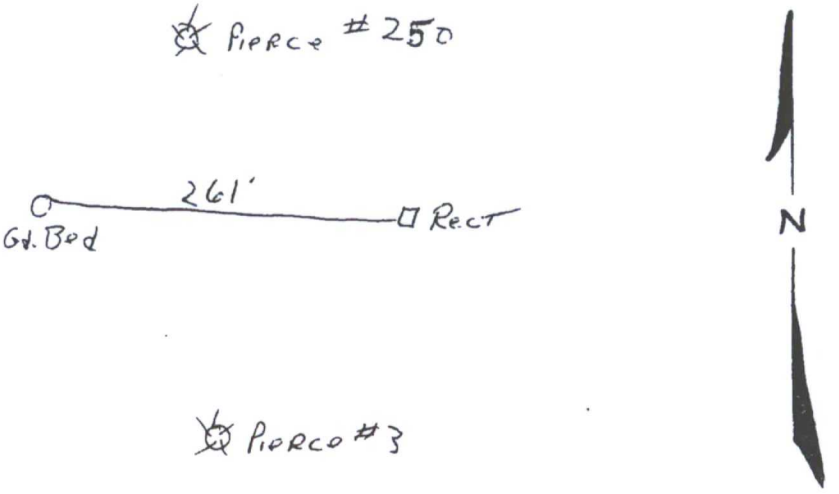
Remarks: DRILLER SAID HIT WATER AT 200' DRILLED TO 500. HOLE CAVED IN TO 460, MUDDED UP AND CLEANED OUT TO 500. HOLE FILLED TO 455. SPACED ANODES 7' APART. COUNTER SKIPP. 100' ON #7. PULLED #7 OUT OF HOLE AFTER COKE SETTLED AND RAN ANOTHER ANODE TO 3 AND COVERED WITH COKE. RAN 500' OF 1" VENT PIPE, PERFORATED 300' OF VENT PI. LEFT COKE BREEZE APPROXIMATLEY 310' FROM SURFACE. FINAL READING ON GROUND BED WAS NOT TAKEN. GOT WATER SAMPLE

Rectifier Size: _____ V _____ A
Addn'l Depth _____
Depth Credit: _____
Extra Cable: 10
Ditch & 1 Cable: 261'
25 'Meter Pole: _____
20' Meter Pole: _____
10' Stub Pole: _____
Junction Box: 1

All Construction Completed

Willis Knight Jr
(Signature)

GROUND BED LAYOUT SKETCH



BURGE CORROSION SYSTEMS, INC.

P.O. BOX 1359 - PHONE 334-6141
AZTEC, NEW MEXICO 87410

COMPANY Meridian O.L DAILY DRILLING REPORT 7-22 19 90

WELL NAME:	WELL NUMBER:	SECTION:	TOWNSHIP:	RANGE:
Pierce	250	1	30	9

WATER AT: 200' FEET: HOLE MADE: 500'

DESCRIPTION OF FORMATION

FROM	TO	FORMATION IS	COLOR
0	20	8" Pvc Casing - Sand - S. Stone.	
20'	80'	sandstone	
80'	190'	sand stone, -shale/Bentstreamers	
190'	210'	Sand water - Appx. 100 gpm +	
210'	230'	shale - sand mix	
230'	330'	Sand - Bentonite. mix	
330'	360'	shale - SAND mix	
360'	420'	Bentonite - SAND mix	
420'	500'	shale - SAND mix	

REMARKS: Had water standing at 200' 100 gpm + + plus
Lost 65' Hole - Had to reenter

Driller Brian E. Burge Tool Dresser

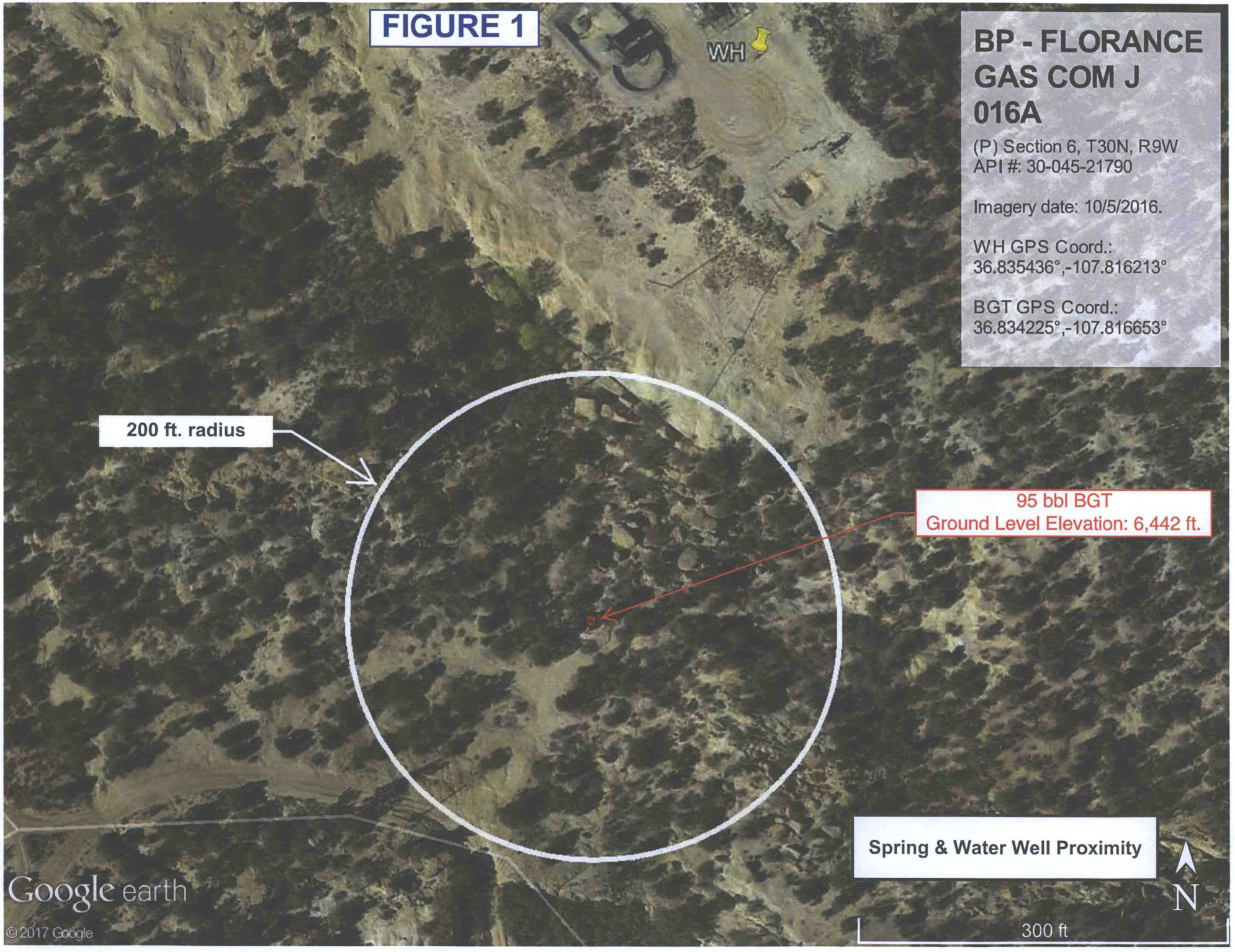
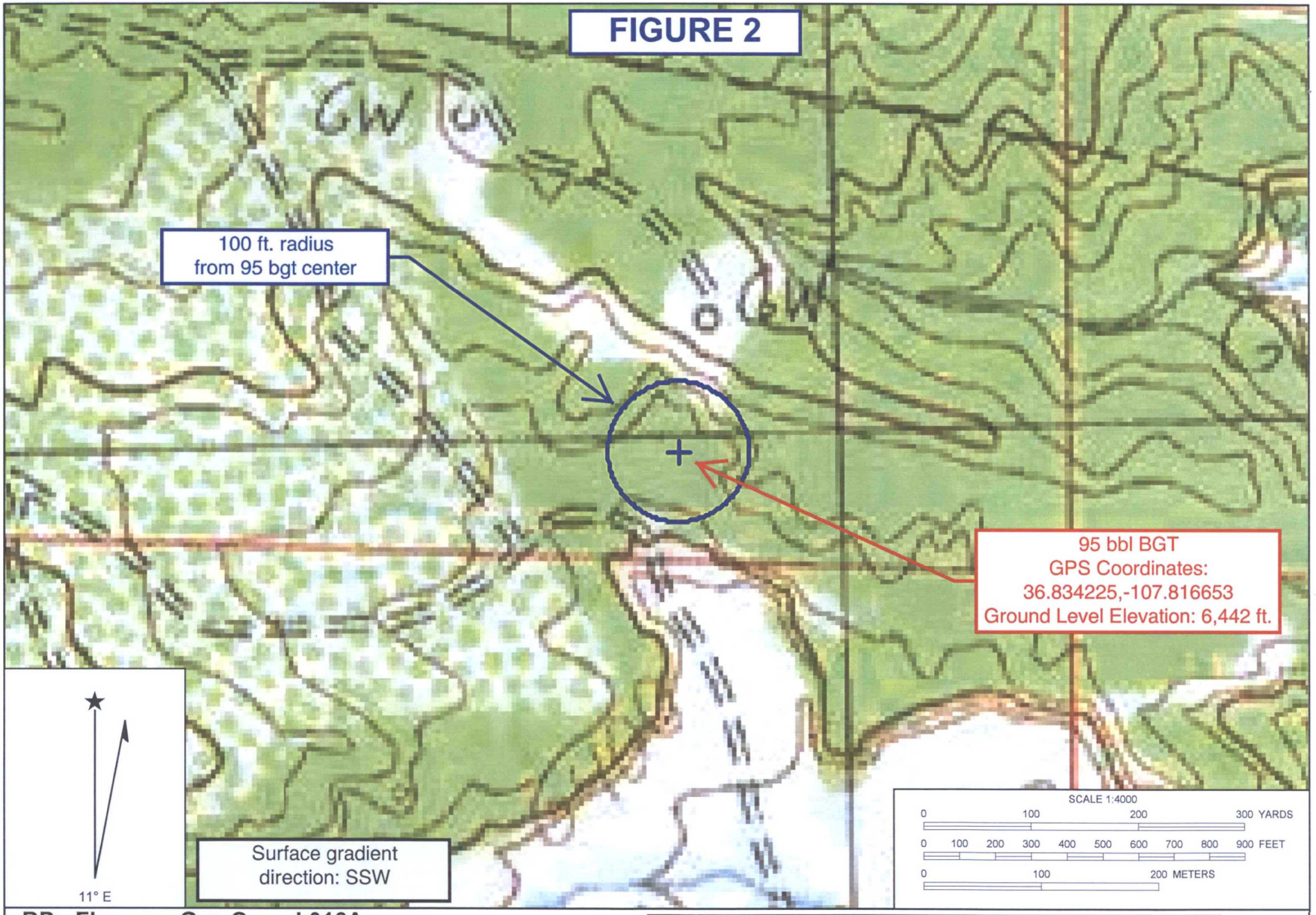


FIGURE 1
WH
BP - FLORANCE GAS COM J 016A
(P) Section 6, T30N, R9W
API #: 30-045-21790
Imagery date: 10/5/2016.
WH GPS Coord.: 36.835436°,-107.816213°
BGT GPS Coord.: 36.834225°,-107.816653°
200 ft. radius
95 bbl BGT
Ground Level Elevation: 6,442 ft.
Spring & Water Well Proximity
N
300 ft
Google earth
©2017 Google

FIGURE 2



BP - Florance Gas Com J 016A

API #: 3004521790

Tank ID: 3004521790D

(P) Section 6, Township 30.0N, Range 09W, P.M. NM 23

Proximity to Watercourses

BP AMERICA PRODUCTION COMPANY

SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

This plan will address the method, procedures, and protocols for closure of below-grade tanks (BGTs) on BP America Production Company (BP) well sites pursuant to Subsection A of 19.15.17.13 NMAC. As stipulated in Paragraph (1) of Subsection C of 19.15.17.13 NMAC, BP will not commence closure without first obtaining approval of the closure plan submitted pursuant to Paragraph (3) of Subsection B of 19.15.17.9 NMAC. If deviations from this plan are necessary, BP will request preapproval from the Division District III office of any specific changes and will be included on form C-144. BP shall close its BGTs within 60 days of cessation of the operation as required by Paragraph (4) of Subsection G of 19.15.17.13 NMAC.

General Closure Plan

1. BP shall notify the surface owner by certified mail; return receipt requested that it plans to close a BGT. Notice given will be at least 72 hours in advanced, but not more than one week prior to any closure operation. The notice shall include the well name, API number, and legal description of the location. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.
2. BP shall notify the Division District III office verbally and in writing at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the Operator's name, and the location of the BGT 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.
3. Within 60 days of cessation of operations, 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 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)
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 Division District III office approves. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.
5. Within six months of cessation of operations, BP shall remove any on-site equipment associated with a BGT unless the equipment is required for some other purpose.
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 to include any obvious stained or wet soils, or other evidence of a release under the BGT. The composite sample shall be collected and analyzed as required for the constituents listed in Table I within Subparagraph (a) of Paragraph (3) of Subsection C of 19.15.17.13 NMAC (see Table 1 on following page).

Table 1 Closure Criteria for Soils Beneath Below-Grade Tanks			
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

Notes: **mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons, TDS = total dissolved solids.**
*** - Or other test methods approved by the division**
**** - Numerical limits or natural background level, whichever is greater**

7. If any contaminant concentration exceeds those standards set in Table I, BP will acknowledge NMOCD's position to require additional delineation upon review of the results. BP will not proceed with any further closure activities until approval is first granted by NMOCD.
8. If the sampling demonstrates that all contaminant constituents do not exceed the concentrations specified in Table I, then BP shall backfill the excavation, with non-waste containing, uncontaminated, earthen material.
9. 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 Paragraph (2) of Subsection H of 19.15.17.13 NMAC, re-contour the BGT location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Paragraph (5) of Subsection H of 19.15.17.13 NMAC.
10. BP may propose an alternative to the re-vegetation or recontouring requirement if it can demonstrate to the NMOCD's District III office that the proposed alternative provides equal or greater prevention of erosion, and protection of fresh water, public health and the environment. BP will seek surface owner approval of the proposed alternative and provide written documentation of the surface owner's approval to NMOCD for its approval.
11. Areas reasonably needed for production operations or for subsequent drilling operations shall be compacted, covered, paved, or otherwise stabilized and maintained in such a way as to minimize dust and erosion to the extent practicable.

12. The soil cover for closures after site contouring, where the BGT has been removed and if necessary remediated beneath the BGT to chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, shall consist of the background thickness of topsoil or one foot or suitable material, whichever is greater.
13. 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.
14. All areas disturbed by the closure of the BGT, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.
15. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of the BGT.
16. Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.
17. The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of BP subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.
18. Pursuant to Subparagraph (e) of Paragraph (5) of Subsection H of 19.15.17.13 NMAC, BP shall notify the NMOCD when reclamation and re-vegetation has been successfully achieved.
19. Within 60 days of closure completion, BP shall submit a closure report on NMOCD's form C-144, and will include the following;
    a. necessary attachments to document all closure activities
    b. sampling results
    c. information required by 19.15.17 NMAC
    d. details on back-filling, capping and covering, where applicable.
20. 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.