District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

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

P	it, Closed-L	oop System	, Below-Grade	Tank, or
Proposed	Alternative	Method Per	mit or Closure	Plan Application

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Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  Modification to an existing permit  Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method										
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request										
lease 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 avironment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.										
Deperator: BP AMERICA PRODUCTION COMPANY OGRID #: 778										
Address: 200 ENERGY COURT, FARMINGTON, NM 87410  Reculity or well name: NFILLS 001 RCUD JUL 29 '08										
active of well limite. Well as you										
API Number: 3004510775 OCD Permit Number: 0IL CONS. DIV.										
J/L or Qtr/Qtr A Section 14 Township 31.0N Range 11W County: San Juan 51. 3										
Center of Proposed Design: Latitude <u>36.8849333</u> Longitude <u>-107.9525833</u> NAD: ☐1927 ☑ 1983										
Surface Owner: X Federal X State Private Tribal Trust or Indian Allotment										
Pit: Subsection F or G of 19.15.17.11 NMAC   Temporary: Drilling Workover   Permanent Emergency Cavitation P&A   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    **Closed-loop System: Subsection H of 19.15.17.11 NMAC  **Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)   Drying Pad Above Ground Steel Tanks Haul-off Bins Other   Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other   Liner Seams: Welded Factory Other Dother										
Below-grade tank: Subsection I of 19.15.17.11 NMAC Double wall/Double bottom 19.15.17.11 (4b)  Volume: 95										
Alternative Method:  ubmittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.										
* T.										

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 Hogwire fencing as per Design Plan									
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 19.15.3.103 NMAC									
Administrative Approvals 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:  Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau of consideration of approval.  (Hogwire Fencing in Design Plan)  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for								
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 accepta material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropr office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of app Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.									
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No								
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 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No ☐ NA								
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No 図 NA								
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; 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 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ 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								

11. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist</u> : 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 19.15.17.12 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:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API Number:
Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
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 19.15.17.19 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System   Alternative   Proposed Closure Method: Waste Excavation and Removal   Waste Removal (Closed-loop systems only)   On-site Closure Method (Only for temporary pits and closed-loop systems)   In-place Burial On-site Trench Burial   Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15.   Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.    Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC   Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC   Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)   Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC   Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S Instructions: Please indentify the facility or facilities for the disposal of liquids, d facilities are required.	iteel Tanks or Haul-off Bins Only: (19.15.17.13.E rilling fluids and drill cuttings. Use attachment if n	NMAC) nore than two
•	Disposal Facility Permit Number:	
	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occ Yes (If yes, please provide the information below) No	-	vice and operations?
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 NMAC of 19.15.17.13 NMAC	C
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the coprovided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC fee	e administrative approval from the appropriate disti Bureau office for consideration of approval. Justi	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ 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 300 feet of a continuously flowing watercourse, or 200 feet of any other sign lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	ificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or sp. NM Office of the State Engineer - iWATERS database; Visual inspection (o	oring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approve	-	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visua	l inspection (certification) of the proposed site	☐ 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
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology Society; Topographic map</li> </ul>	& Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Instruction/Design Plan of Temporary Pit (for in-place burial of a drying part Protocols and Procedures - based upon the appropriate requirements of 19.15 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection Instruction Plan - based upon the appropriate requirements of Subsection Instruction Plan - based upon the appropriate requirements of Subsection Instructions.	nirements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. 17.13 NMAC nirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC rill cuttings or in case on-site closure standards cann I of 19.15.17.13 NMAC I of 19.15.17.13 NMAC	15.17.11 NMAC

Operator Application Certification:  I hereby certify that the information submitted with this application is true, accura	ate and complete to t	he hest of my knowledge and helief
Name (Print): LARRY SCHLOTTERBACK		VIRONMENTAL COORDINATOR
Signature: Pay Selblubur	Date:	HII V 20, 2009
e-mail address: larry.schlotterback@bp.com	Telephone:	(505) 326-9200
OCD Approval: Permit Application (including closure plan) Closure Pl	an (only) OCD	Conditions (see attachment)
OCD Representative Signature:		Approval Date: 8 - 5- 08
Title: Emiro/spec	OCD Permit Num	ber:
21. <u>Closure Report (required within 60 days of closure completion)</u> : Subsection Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure.	o implementing any he completion of the osure activities have	closure activities and submitting the closure report. closure activities. Please do not complete this been completed.
	Closure Com	pletion Date:
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternated If different from approved plan, please explain.	tive Closure Method	☐ Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, dril.		
two facilities were utilized.	<b>3</b> ,	<b>3</b>
Disposal Facility Name:	Disposal Facility P	Permit Number:
Disposal Facility Name:	Disposal Facility P	Permit Number:
Were the closed-loop system operations and associated activities performed on or  Yes (If yes, please demonstrate compliance to the items below) No	in areas that will not	be used for future service and operations?
Required for impacted areas which will not be used for future service and operation	ons:	
Site Reclamation (Photo Documentation)		
☐ Soil Backfilling and Cover Installation ☐ Re-vegetation Application Rates and Seeding Technique		
24. Closure Report Attachment Checklist: Instructions: Each of the following its	ems must be attached	d to the closure report. Please indicate, by a check
mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)		
Proof of Deed Notice (required for on-site closure)		
Plot Plan (for on-site closures and temporary pits)		
Confirmation Sampling Analytical Results (if applicable)		
☐ Waste Material Sampling Analytical Results (required for on-site closure) ☐ Disposal Facility Name and Permit Number		
Soil Backfilling and Cover Installation		
Re-vegetation Application Rates and Seeding Technique		
☐ Site Reclamation (Photo Documentation) On-site Closure Location: Latitude Longit	ude	NAD: □1927 □ 1983
		11121 [ 1702
25. Operator Closure Certification:		
I hereby certify that the information and attachments submitted with this closure relation. I also certify that the closure complies with all applicable closure requirem		
Name (Print):	Title:	The state of the s
Signature:	Date:	
e-mail address:	Telephone:	

## BP AMERICA PRODUCTION COMPANY

## San Juan Basin in Northwest New Mexico Below-Grade Tank Design and Construction Plan

Pursuant to Rule 19.15.17.11 NMAC, BP America Production Company (BP) shall construct a below-grade tank (BGT) with the following guidelines. Any deviations from this plan will be addressed with the submittal of the New Mexico Oil Conservation Division's (NMCOD) form C-144 at the time of the pit permit application.

- 1) The BGT will be constructed to contain liquids and prevent contamination of fresh water and protect public health and the environment.
- 2) Prior to constructing a BGT, top soil will be stripped for use as a final cover or fill at the time of closure.
- 3) An upright sign, not less than 12" x 24" with lettering not less than 2" height will be placed on the fence surrounding the BGT. Alternatively, a well sign in compliance with 19.15.3.103 NMAC will be posted at the well site. The sign will give BP's name, location by quarter-quarter or unit letter, section, township, range, and emergency phone numbers.
- 4) BP will fence its BGTs (and possibly associated surface equipment, i.e. separator units, production tanks, etc.) utilizing 48" steel mesh field-fence (hogwire) with a ½ inch diameter metal top rail (sucker rod). Perimeter T-post will be installed roughly every 10 feet. Fences are not required if there is an adequate surrounding perimeter fence that prevents unauthorized access to the well site or facility, including a BGT.
- BP will fence or enclose a BGT located within 1,000 feet of a permanent residence, school, hospital, institution or church with a chain link security fence, at least six (6) feet in height with at least two (2) strands of barbed wire at the top. BP will ensure that all gates associated with the fence are closed and locked when responsible personnel are not on-site.
- 6) It is understood that the NMOCD District III office may approve an alternative to this requirement if BP can demonstrate that an alternative provides equivalent or better protection. BP also recognizes that the NMOCD District III office may impose additional fencing requirements for protection of wildlife in particular areas.
- 7) The following requirements adhere to Subsection I of 19.15.17.11 NMAC.
  - a. BP will ensure that a BGT is constructed of materials resistant to the BGT's particular contents and resistant to damage from sunlight.
  - b. A BGT system shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.
  - c. The BGT will be constructed to prevent overflow and the collection of surface water run-on by using earthen berms and / or diversion dikes.
  - d. Construction and usage of a BGT that does not have double walls provided that the BGT's side walls are open for visual inspection for leaks, the BGT's bottom is elevated a minimum of six (6) inches above the underlying ground surface and the BGT is underlain with a geomembrane liner, which may be covered with gravel, to divert leaked liquid to a location that can be visually inspected. BP will equip BGTs designed in this manner with a properly operating automatic high-level shut-off control device and manual controls to prevent overflows. The geomembrane liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material that the NMOCD District III office approves. The geomembrane liner shall have a hydraulic conductivity no greater than 1 x 10-9 cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility will comply with EPA SW-846 method 9090A..

- e. Any other BGT, in which the side walls are not open for visible inspection for leaks shall be double walled with leak detection capability.
- f. It is understood BP may construct a BGT according to an alternative system that the NMOCD District III office approves based upon the demonstration that the alternative provides equivalent or better protection.
- g. BP's BGTs constructed and installed prior to June 16, 2008 that have the side walls open for visual inspection and are placed upon a geomembrane liner but does not meet all the requirements in Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC are not required to equip or retrofit the BGT to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC so long as the BGTs demonstrate integrity. If the existing BGTs do not demonstrate integrity, then BP will promptly remove those BGT and install a BGT that do comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
- h. BP's BGTs constructed and installed prior to June 16, 2008 that do not comply with Paragraph (1) through (4) of Subsection I of 19.15.17.11 NMAC or do not comply with Paragraph (5) of Subsection I of 19.15.17.11 NMAC will equip or retrofit the BGT to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within five (5) years after June 16, 2008. If existing BGTs do not demonstrate integrity, BP will promptly remove those BGTs and install a BGT that do comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.

# **BP AMERICA PRODUCTION COMPANY**

## San Juan Basin in Northwest New Mexico Below-Grade Tank General Operating and Maintenance Plan

Pursuant to Rule 19.15.17.12 NMAC, America Production Company (BP) shall maintain and operate a below-grade tank (BGT) with the following guidelines. Any deviations from this plan will be addressed with the submittal to the New Mexico Oil Conservation Division's (NMOCD) form C-144 at the time of the BGT permit application.

- 1) The BGT will be operated and maintained to contain liquids and prevent contamination of fresh water, protect public health and the environment.
- 2) The fluids contents will be re-used, recycled or disposed in a manner to protect fresh water, public health and the environment. Disposal is addressed in the "Closure Plan" for the site.
- 3) No hazardous waste will be discharged or stored in a BGT.
- 4) If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface, then BP will notify the NMOCD's District III office within 48 hours of the discovery and repair the damage or replace the liner.
- 5) If a BGT develops a leak, or if any penetration of the pit liner or BGT occurs below the liquid's surface, then BP will remove all liquid above the damage or leak line within 48 hours, notify the NMOCD's District III office within 48 hours of the discovery and repair the damage or replace the pit liner and/or BGT.
- 6) BP will install a BGT to prevent the collection of surface water run-on.
- 7) The following requirements adhere to Subsection D of 19.15.17.12 NMAC.
  - a. BP will not allow its BGTs to overflow or allow surface water run-on to enter into its BGTs.
  - b. BP will remove any visible or measurable layer of oil from the fluid surface of any of its BGTs.
  - c. BP will inspect BGTs at least monthly and maintain a written record of each inspection for five (5) years.
  - d. BP will maintain adequate freeboard to prevent overtopping of its BGT.

# BP AMERICA PRODUCTION COMPANY

### SAN JUAN BASIN, NORTHWEST NEW MEXICO

#### BELOW-GRADE TANK GENERAL CLOSURE PLAN

As stipulated in Rule 19.15.17.13 NMAC, the following information adheres to the requirements established in closing below-grade tanks (BGTs) on BP America Production Company (BP) well sites. This plan will address the standard protocols and procedures for closure of below grade tanks. If deviations from this plan are necessary, any specific changes will be included with New Mexico Oil Conservation Division (NMOCD) form C-144.

BP shall close its existing BGTs that do 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 (5) years after June 16, 2008, if not retrofitted to comply with Paragraph (1) through (4) of Subsection I of 19.15.17.11 NMAC. BP shall close its permitted BGTs within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, of 19.15.17.17 NMAC in accordance with this closure plan after receiving NMOCD's division District III office approval.

The following outline addresses all requirements for closure of BP's BGTs;

- Notification to the surface owner by certified mail, with return receipt request, will be given prior to BP's
  intent on conducting, with NMOCD's pre-approval, confirmation sampling for closure. Evidence of
  mailing of the notice to the address of the surface owner shown in the county tax records is understood to
  demonstrate compliance with this requirement.
- 2. In addition, notification will also be given to 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 well name and number to be closed, legal description utilizing unit letter, section, township, range, and API number.
- 3. Remove liquids and sludge from the BGTs prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. A list of BP approved disposal facilities are included at the end of this document.
- 4. Remove the BGTs and dispose of it in a NMOCD's division-approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD's division District III office approves.
- Remove any on-site equipment associated with a BGTs unless the equipment is required for some other purpose.
- 6. BP will test the soils beneath the BGTs to determine whether a release has occurred. 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 will be analyzed for BTEX, TPH and chlorides. The testing methods and closure standards for those constituents are as follows;

Constituents	Testing Method	Closure Standards (mg/Kg)
Benzene	US EPA Method SW-846 8021B or 8260B	0.2
Total BTEX	US EPA Method SW-846 8021B or 8260B	50
TPH	US EPA Method SW-846 418.1	100
Chlorides	US EPA Method 300.1	250 or background

Notes:

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

- 7. BP will notify the division District III office of its results on form C-141. It is understood that the NMOCD may require additional delineation upon review of the results.
- 8. If it is determined that a release has occurred, then BP will comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.
- 9. If the confirmation sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP will backfill the excavation, with NMOCD's preapproval, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The NMOCD prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

- 10. Within 60 days of closure completion, submittal of a closure report on NMOCD's form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where and if applicable, will be furnished. BP will 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
- 11. Reclamation will follow 19.15.17.13G (1) and (2).
  - a. Once the BGT has been approved for closure by NMOCD, the BGT location and all areas associated with the BGT including associated access roads will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed area. It is understood that 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, recontour 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.
- 12. Soil cover will follow 19.15.17.13H (1) and (3).
  - a. 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.
  - b. The soil cover will be constructed to the site's existing grade and all possible efforts will be conducted to prevent ponding of water and erosion of the cover material.
- 13. Revegetation will follow 19.15.17.13I (1), (2), (3), (4) and (5).
  - a. Revegetation of the pit location and any associated access road(s) will be attempted during the first growing season after closure of the pit with seeding or planting of the disturbed areas. Seeding will be accomplished by tilling/plowing 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.
  - b. Seeding or planting will be repeated until it successfully achieves the required vegetative cover.
  - c. When conditions are not favorable for the establishment of vegetation, such as periods of drought, it is understood that the division may allow sufficient time to delay seeding or planting until soil moisture conditions become favorable. In addition, the division may require BP to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices.
  - d. Notification will be given to the division District III office when seeding or planting has been successfully achieved.

#### Proposed waste disposal sites:

BP Crouch Mesa Landfarm, Permit NM-02-003

JFJ Landfarm, Permit NM-01-010(B)

Basin Disposal, Permit NM-01-0005

BP Operated E.E. Elliott SWD #1, API 30-045-27799

BP Operated 13 GCU SWD #1, API 30-045-28601

BP Operated GCU 259 SWD, API 30-045-20006

BP Operated GCU 306 SWD, API 30-045-24286

BP Operated GCU 307 SWD, API 30-045-24248

BP Operated GCU 328 SWD, API 30-045-24735

BP Operated Pritchard SWD #1, API 30-045-28351

## BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

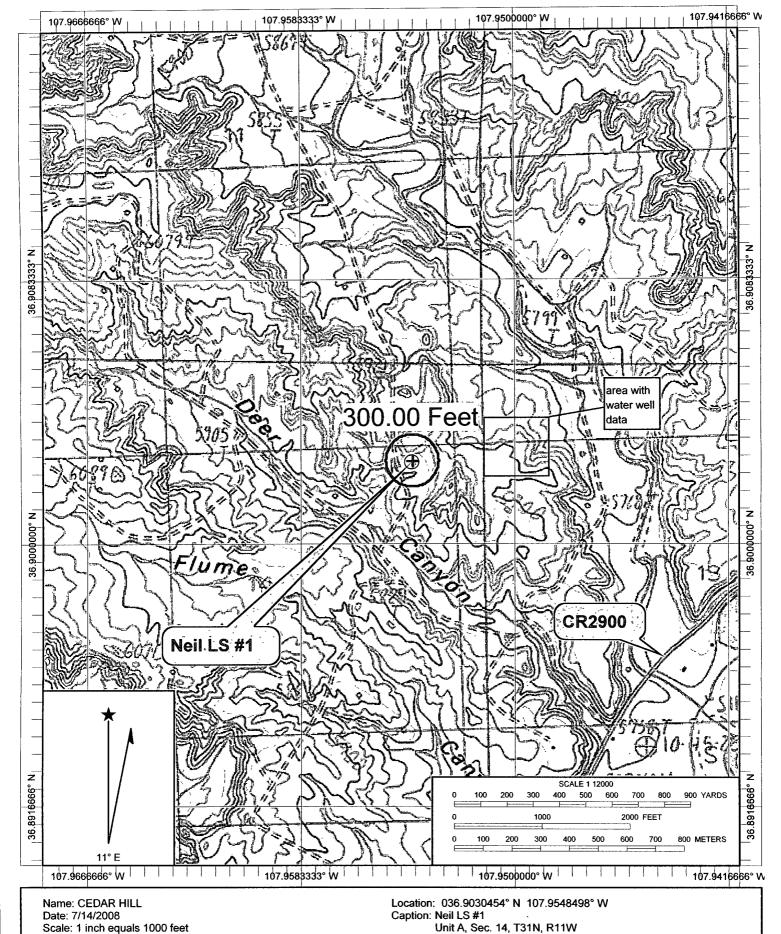
July 15, 2008

BP America Production Company Neil LS #1 (A) Section 14 – T31N – R11W API #: 30-045-10775 San Juan County, New Mexico

Hydrogeology Report (Pursuant to NMAC 19.15.17.9, Subsection B, Paragraph 4)

- 1) <u>Topography</u>: The well site is located between Kiffen and Deer Canyon washes north of Aztec, New Mexico. The proposed below-grade tank (BGT) is located on a flat portion on the north side of the well pad butted against a sandstone ledge. The site surroundings consist of exposed sandstone with a thin layer of coarse grained sand.
- 2) <u>Soils</u>: Surface soil at the proposed pit site is comprised primarily of a coarse grained sand. The thickness of this sand at the site is approximately 0-4 feet and overlies a dense sandstone surface that outcrops throughout the region (see Geology, below).
- 3) Geology: Review of geologic maps published by the New Mexico Bureau of Geology and Mineral Resources, 2003, indicates the outcrop at the site is the Nacimiento Formation of Paleocene age. This formation is described as a gray and brown shale and tan, medium grained and conglomeratic sandstone with a thickness as much as 240 meters. Its origin developed from fluvial and lacustrine type environments.
- 4) <u>Surface Hydrology</u>: Surface run off at the western perimeter of the well pad is towards the southwest in the direction of an unnamed drainage feeding into the Deer Canyon wash with a southeast flow direction (see attached topography map). Visual inspection of the site did present past evidence of historical precipitation that could have impaired the integrity of existing on-site BGTs, but that engineered countermeasures have been instituted that include berming of the northern well pad perimeter to control surface run on/runoff. Routine inspection and maintenance of this berming may be necessary following severe storm events. In addition, no new manmade ponds, ditches, or any other surface depressions for surface water accumulation purposes were observed.
- 5) Groundwater Hydrology: Information researched in the New Mexico State Engineer's well database indicated that depth to groundwater in a water well reportedly about 1,000 feet east of the well pad is less than 50 feet below grade. However, the exact elevation and location of the water well is not clearly defined (see attached topography map). Visual inspection and review of areal photography of the area did not reveal any such well to be present, indicating a possible error in the State Engineer's records. With bedrock sandstone being exposed at the site's surface (inspected at the on-site BGT areas) and surroundings, it is difficult to ascertain the exact depth to groundwater. The well site ground elevation was recorded at 5,917 feet above mean sea level and the surface of the Deer Canyon wash in the down slope direction from the nearby surface drainage is approximately at

- 5,840 feet, for a mean difference of 77 feet. A site inspection of the unnamed drainage did not indicate any signs of perched or seeping groundwater. It is the opinion of Blagg Engineering that groundwater at the BGT site is greater than 77 feet below grade.
- 6) Ground Stability: The well pad's pit position is located on soils atop a sandstone outcrop of the Nacimiento Formation. Visual inspection of the site did not show any faulting, fracturing, sink holes or erosional features that would indicate an unstable area. However, as previously noted, surface run on/runoff from any severe storm(s) may compromise the berm following such an event(s) and will call for continued inspection and maintenance.
- 7) Wetlands, FEMA Flood Zones, and Mines: U. S. Fish and Wildlife Wetlands Maps, FEMA FIRM Flood Zone Maps and New Mexico Office of Mines, Mills and Quarry maps were reviewed to identify any such zones in the area of the proposed below-grade tank. No such wetlands, flood zones or mines/mills/quarry's were identified within the NMOCD stipulated distances from the site. Maps of the data search are attached.
- 8) Private residences, wells, springs, schools, hospitals, institutions, churches: The site was inspected for evidences of buildings, wells, etc. and no such structures were evident within a half (½) mile of the site. The NM Office of State Engineer records were reviewed for well data. No such data was found within one (1) mile down gradient of the site (records search attached).





BP - Neil LS #1 Unit A, Sec. 14, T31N, R11W San Juan County, NM 36.90297267/-107.9541622

# New Mexico Office of the State Engineer POD Reports and Downloads

1 OD Reports and Downloads
Township: 31N Range: 11W Sections: 14
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) O Non-Domestic O Domestic All
POD / Surface Data Report Avg Depth to Water Report Water Column Report
Clear Form iWATERS Menu Help
WATER COLUMN REPORT 07/14/2008
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest)  POD Number  Tws Rng Sec q q q Zone X Y Well Water Column

No Records found, try again

# New Mexico Office of the State Engineer POD Reports and Downloads

Township	2: 31N Range: 11W Sections: 23
NAD27 X:	Y: Zone: Search Radius:
County:	Basin: Number: Suffix:
Owner Name: (First)	(Last) C Non-Domestic C Domestic C All
POD / Surface Da	ta Report
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#### WATER COLUMN REPORT 07/14/2008

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Depth Depth Water (in f.									(in feet)				
POD Number	Tws	Rng	Sec	q	q	q	Zone	х	Y	Well	Water	Column	
SJ 02978	31N	11W	23	2	1	3				800			
SJ 02129	31N	11W	23	2	4					72	35	37	
SJ 01817	31N	11W	23	2	4					65	20	45	
SJ 02161	31N	11W	23	3	4					40	25	15	

Record Count: 4

# New Mexico Office of the State Engineer POD Reports and Downloads

Township: 31N Range	e: 11W Sections: 13									
NAD27 X: Y: Zone: Search Radius:										
County: Basin:	Number:	Suffix:								
Owner Name: (First) (Last) O Non-Domestic O Domestic All										
POD / Surface Data Report	Avg Depth to Water Report	Water Column Report								
Clear Form iWATERS Menu Help										
WATER COLUMN REPORT 07/14/2008										

	(quarter	s are	3 T=1	NW 2	=NE	3=SW 4=	SE)					
	(quarter	s are	e biq	ges	it to	smalle	st)		Depth	Depth	Water	(in feet)
POD Number	Tws	Rng	Sec	q o	рı	Zone	x	Y	Well	Water	Column	
SJ 02395	31N	11W	13	1 1	. 3				95	35	60	
SJ 00560	31N	11W	13	2 4	ļ				39	25	14	
SJ 01551	31N	11W	13	2 4	ļ				64	42	22	
SJ 01640	31N	11W	13	2 4					32	7	25	
SJ 01729	31N	11W	13	2 4					48	28	20	
SJ 01539	31N	11W	13	3					52	30	22	
SJ 01541	31N	11W	13	3					52	30	22	
SJ 00946	31N	11W	13	3 3	}				135	100	35	

#### New Mexico Office of the State Engineer Water Right Summary

Back

Primary Purpose:

SJ 02395 DOM

72-12-1 DOMESTIC ONE HOUSEHOLD

Primary Status: Total Acres: PMT Permit

Total Diversion:

Owner:

Documents on File

Point of Diversion

POD Number

SJ 02395

Doc

File/Act Status 1 2 3 Trans\_Desc

From/To

Т

Acres Diversion Consumptive

3

08/28/1992 PMT LOG ABS SJ 02395

0

(qtr are 1=NW 2=NE 3=SW 4=SE)

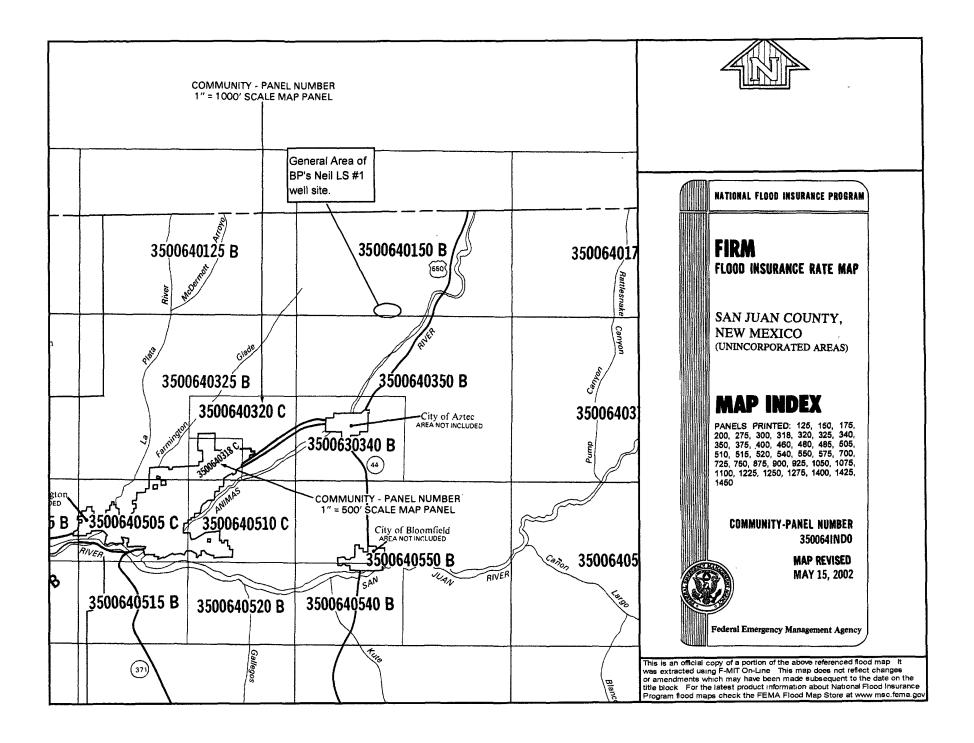
(qtr are biggest to smallest

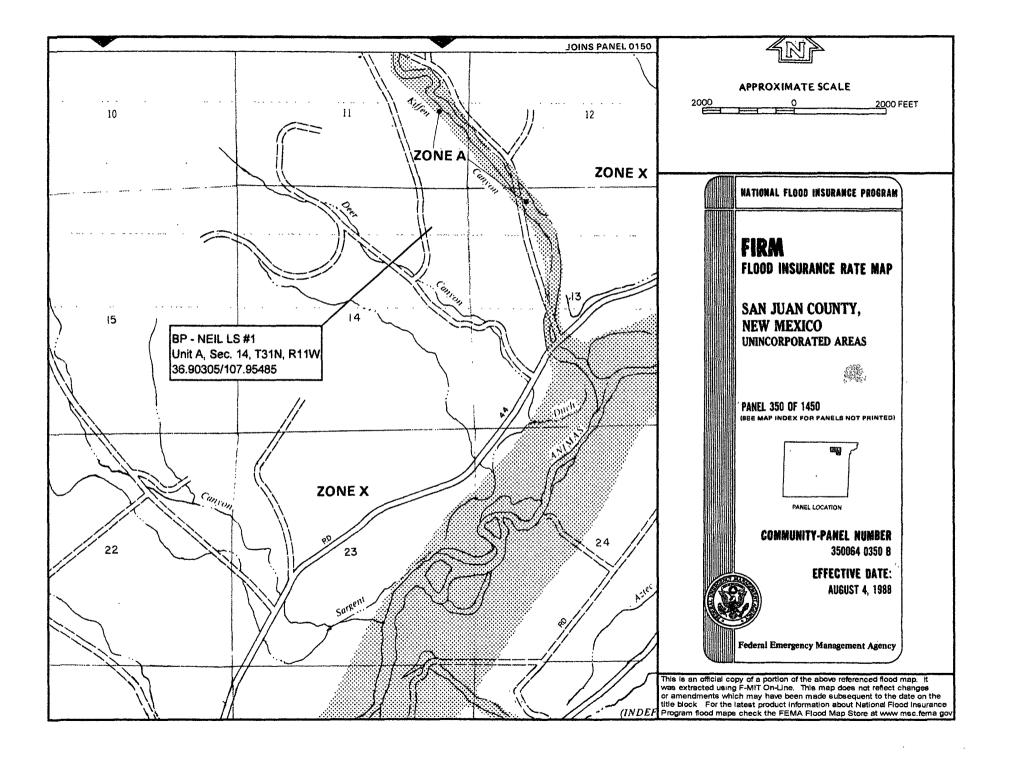
Source Tws Rng Sec q q q Shallow 31N 11W 13 1 1 3

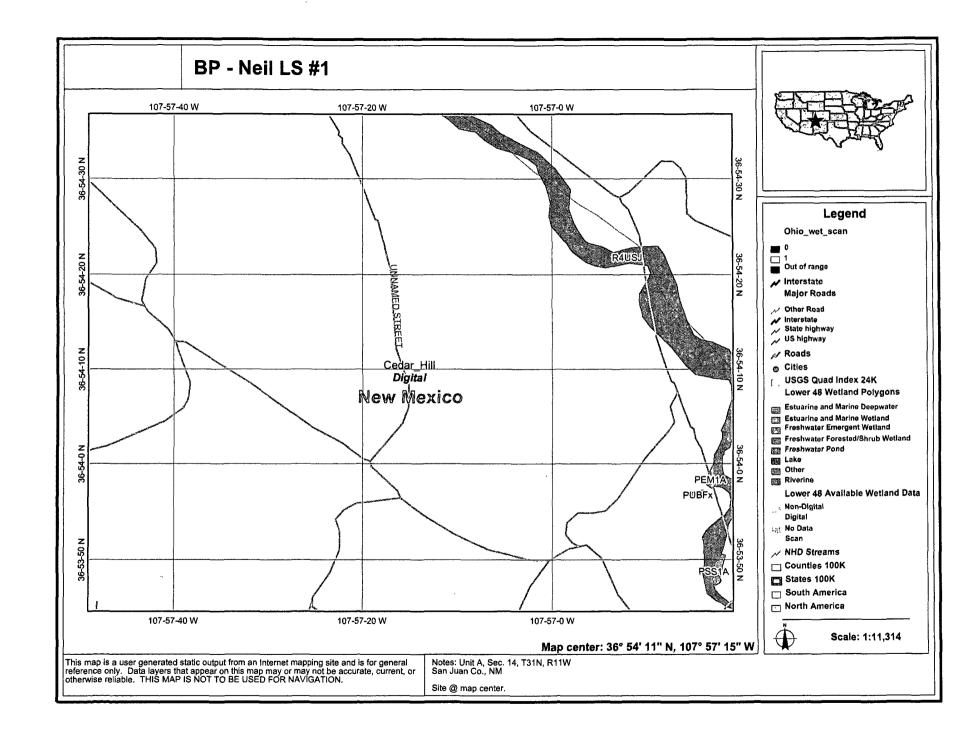
X Y are in Feet UTM are in Meters) Y Zone

UTM Zone Easting Northing 237155 4088191 Latitude 0 0 0

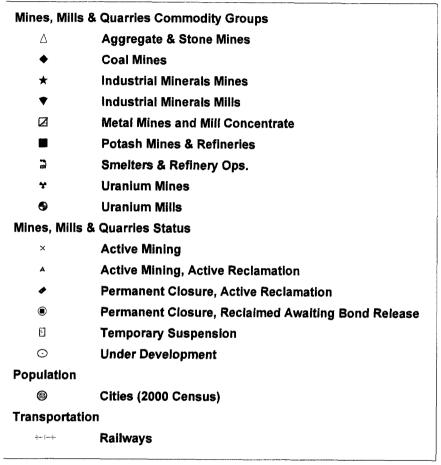
Longitude 0 0 0

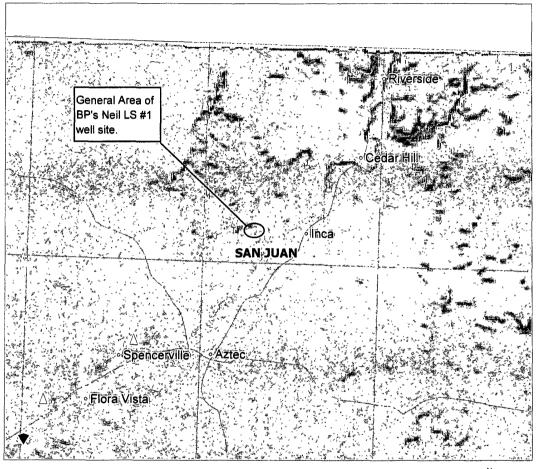


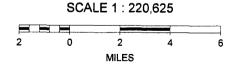




# BP - Neil LS #1 Mines, Mills, & Quarry Web Map











**BP America Production Company** 

200 Energy Court Farmington, NM 87401 Phone: (505) 326-9200

July 15, 2008

Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401

RE:

Notice of Proposed Below Grade Tank Construction

Neil LS 1

Unit A, Section 14, Township 31N, Range 11W

Dear Mr. Herman Lujan:

In regards to the captioned subject and requirements of the new NMOCD pit rule, this letter is notification that BP America Production Company is planning to install a Below Grade Tank (BGT) that will be used for daily operations on this location.

Should you have any questions, please feel free to contact me at 326-9425 in our Farmington office.

Sincerely,

Larry Schlotterback

Field Environmental Coordinator