District 1625 N French Dt , Hobbs, NM 88240

District II 1301 W Grand Ave , Artesia, NM 88210

District III

1000 Rio Brazos Rd, Aztec, NM 87410

District IV 1220 S St Francis Dr , Santa Fe, NM 87505 **Energy Minerals and Natural Resources** Department Oil Conservation Division

State of New Mexico

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 July 21, 2008

For temporary pits, closed-loop sytems, 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

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

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
	X 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

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538
Address: PO Box 4289, Farmington, NM 87499
Facility or well name: Hagood 19
API Number: 30-045-34688 OCD Permit Number:
U/L or Qtr/Qtr: O(SW/SE) Section: 19 Township: 29N Range: 13W County: San Juan
Center of Proposed Design: Latitude: 36.706527 °N Longitude: 108.244921 °W NAD: 1927 X 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
2 X Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: X Drilling Workover Workover Permanent Emergency Cavitation P&A X Lined Unlined Liner type: Thickness 12 mil X LLDPE HDPE PVC Other Other X String-Reinforced Liner Seams. X Welded X Factory Other Volume: 4400 bbl Dimensions L 65' x 45' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 00 5' 10 0
Liner Seams. X Welded X Factory Other Volume: 4400 bbl Dimensions L 65' x 1200 50 1000 1000 1000 1000 1000 1000 1
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 Bms Other Lined Unlined Liner type Thickness mil LLDPE HDPE PVD Other Liner Seams. Welded Factory Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC Subsection I of 19.15.17.11 NMAC WAR 2009 Construction material:
Secondary containment with leak detection
Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

Fencing: Subsection D of 19.15 17.11 NMAC (Applies to permanent pit, 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, inst	titution or church)
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
X Alternate Please specify 4' hogwire fence with a single strand of barbed wire on top.	
7	
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)	
	==
8 Signs: Subsection C of 19 15.17.11 NMAC	
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
X Signed in compliance with 19.15.3 103 NMAC	
9	
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 of the Santa Fe Environmental Bureau office for constant.	orderstrop of approval
(Fencing/BGT Liner)	sideration of approval.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
10	
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. Requests regarding changes to certain siting criteria may require administrative approval from the	
appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for	
consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.	,
uots not appre to the fing patts of thoose grade talks associated with a closed-toop 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 watercourse, lakebed, sinkhole, or playa	Yes No
lake (measured from the ordinary high-water mark).	li .
- Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes No
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	□NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes No
(Applied to permanent pits)	□ NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 500 horizonal 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.	Yes No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site.	,
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality	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.	Пуез ПNо
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	
Society; Topographic map	
Within a 100-year floodplain - FEMA map	Yes No

Form C-144 Oil Conservation Division Page 2 of 5

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
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 or Permit
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
Previously Approved Operating and Maintenance Plan API
13
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 (I) of Subsection B of 19.15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
Dike Protection and Structural Integrity Design. based upon the appropriate requirements of 19 15.17 11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15 17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19 15.17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19 15.17 9 NMAC and 19.15.17.13 NMAC
14
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: X Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System
Alternative
Proposed Closure Method. Waste Excavation and Removal
Waste Excavation and removal Waste Excavation and removal Waste Excavation and removal Waste Excavation and removal
X On-site Closure Method (only for temporary pits and closed-loop systems)
X In-place Burial On-site Trench
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Weste Everystian and Borrough Classes Blow Chaptelists (10.15.17.12 NB44C) Leaderstian Food of the following these sweets attached to the above show
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 I of 19.15 17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16	C 16(17) 1 H 1 MTP O 1 (10 15 17 12 D NMAC)							
Instructions: Please identify the facility or facilities for the disposal of	ove <u>Ground Steel Tanks or Haul-off Bins Onlv:</u> (19 15.17.13 D NMAC) t liquids, drilling fluids and drill cuttings—Use attachment if more than two f	acilities						
Disposal Facility Name	Disposal Facility Permit #							
Disposal Facility Name:								
Will any of the proposed closed-loop system operations and asso	ociated activities occur on or in areas that will not be used for future se							
Yes (If yes, please provide the information Required for impacted areas which will not be used for future service								
F	on the appropriate requirements of Subsection H of 19.15.17.13 NMA	С						
Site Reclamation Plan - based upon the appropraite requ	irements of Subsection G of 19.15.17 13 NMAC							
	the closure plan Recommendations of acceptable source material are provided belo iate district office or may be considered an exception which must be submitted to the							
Ground water is less than 50 feet below the bottom of the buried	i waste.	Yes X No						
- NM Office of the State Engineer - 1WATERS database search;	USGS: Data obtained from nearby wells	N/A						
Ground water is between 50 and 100 feet below the bottom of the	ne buried waste	Yes []No						
- NM Office of the State Engineer - iWATERS database search, U	JSGS; Data obtained from nearby wells	N/A						
Ground water is more than 100 feet below the bottom of the bur	ried waste.	Yes No						
- NM Office of the State Engineer - (WATERS database search, U	JSGS, Data obtained from nearby wells	N/A						
Within 300 feet of a continuously flowing watercourse, or 200 feet of (measured from the ordinary high-water mark).	any other significant watercourse or lakebed, sinkhole, or playa lake	Yes X No						
- Topographic map; Visual inspection (certification) of the propos	sed site							
Within 300 feet from a permanent residence, school, hospital, institute - Visual inspection (certification) of the proposed site; Aerial phot		Yes X No						
		Yes X No						
Within 500 horizontal feet of a private, domestic fresh water well or spurposes, or within 1000 horizontal fee of any other fresh water well of NM Office of the State Engineer - iWATERS database; Visual ii	• •							
pursuant to NMSA 1978, Section 3-27-3, as amended.	pal fresh water well field covered under a municipal ordinance adopted	Yes X No						
 Written confirmation or verification from the municipality; Writhin 500 feet of a wetland 	tten approvat obtained from the municipanty	Yes X No						
- US Fish and Wildlife Wetland Identification map; Topographic	map; Visual inspection (certification) of the proposed site							
Within the area overlying a subsurface mine Written confirantion or verification or map from the NM EMNI	RD-Mining and Mineral Division	Yes X No						
Within an unstable area.		Yes X No						
 Engineering measures incorporated into the design; NM Bureau Topographic map 	of Geology & Mineral Resources; USGS, NM Geological Society;							
Wıthin a 100-year floodplain FEMA map		Yes XNo						
On-Site Closure Plan Checklist: (19.15 17.13 NMAC) Instr by a check mark in the box, that the documents are attached.	uctions: Each of the following items must bee attached to the closus	re plan. Please indicate,						
X Siting Criteria Compliance Demonstrations - based upor	the appropriate requirements of 19.15.17.10 NMAC							
	riate requirements of Subsection F of 19.15.17.13 NMAC							
	e) based upon the appropriate requirements 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 1	9 15.17.11 NMAC						
X Protocols and Procedures - based upon the appropriate r	equirements 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							
X Waste Material Sampling Plan - based upon the appropr	iate requirements of Subsection F of 19.15.17.13 NMAC							
X Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)								
X Soil Cover Design - based upon the appropriate requirer								
X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Ste Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15.17.13 NMAC								

19 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): Ethel Tally Title: Staff Regulatory Technician
Signature: Date Date Date
e-mail address ethel.tally@conocophillips.com Telephone. 505-599-4027
20 OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: Sympl Sall Approval Date: 4-28-09
Title: Enviro / Spec OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 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:
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.
23
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
were utilized.
Disposal Facility Name Disposal Facility Permit Number
Disposal Facility Name: Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliane to the items below) No
Required for impacted areas which will not be used for future service and operations:
Site Reclamation (Photo Documentation)
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
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)
Plot Plan (for on-site closures and temporary ptts)
Confirmation Sampling Analytical Results (if applicable)
Waste Material Sampling Analytical Results (if applicable)
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
25
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is ture, 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
a mail address:



New Mexico Office of the State Engineer

Point of Diversion - Well Log Received

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

(quarters are smallest to largest)

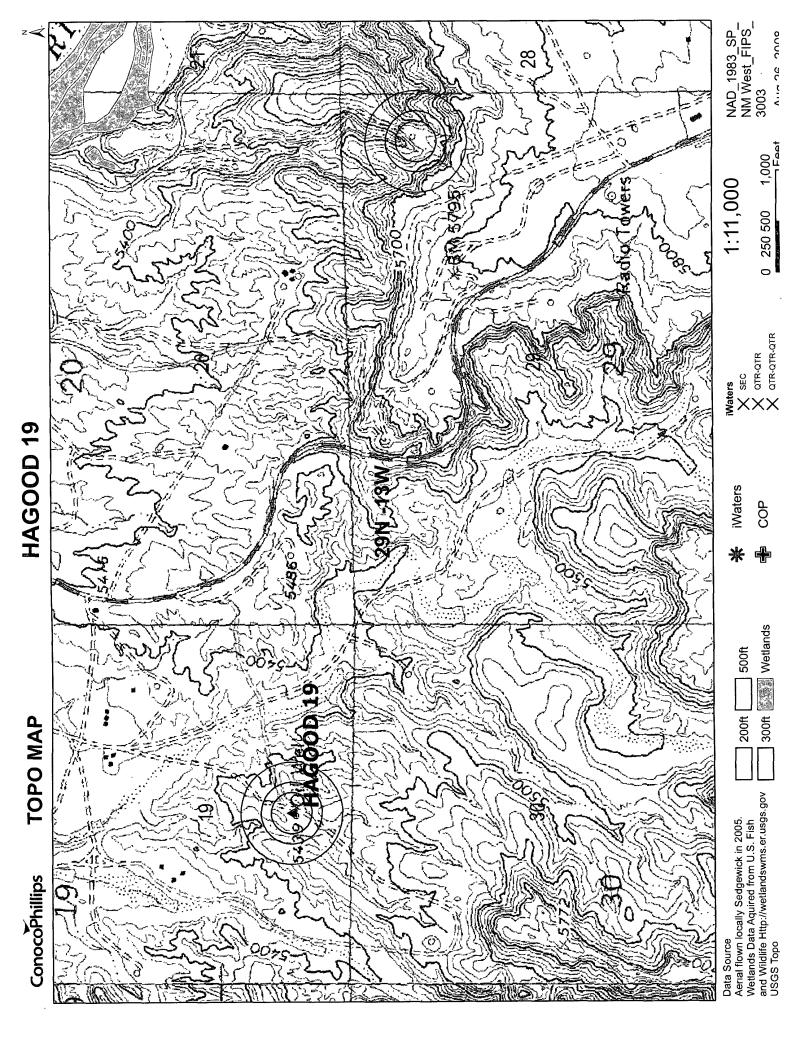
(NAD83 UTM in meters)

(in feet)

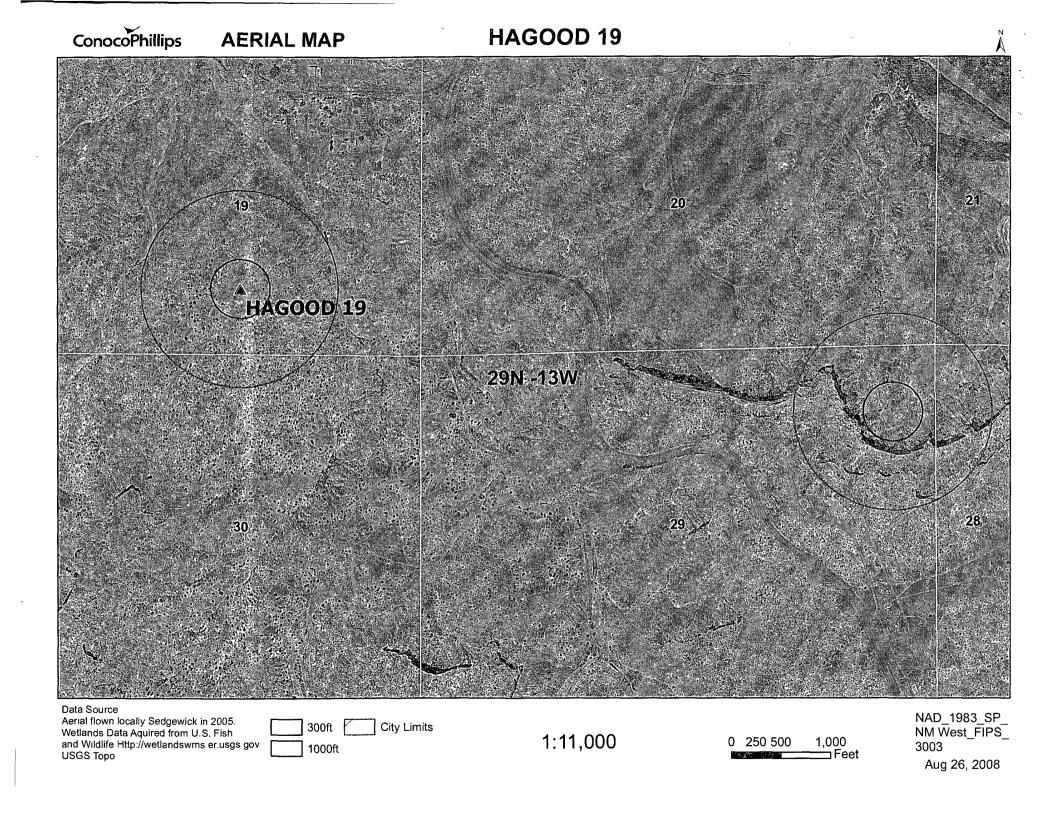
q q q Log File Depth Depth
COUNTY Source 6416 4 Sec Tws Rng X Y Start Date Finish Date Date Well Water

Record Count: 0

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

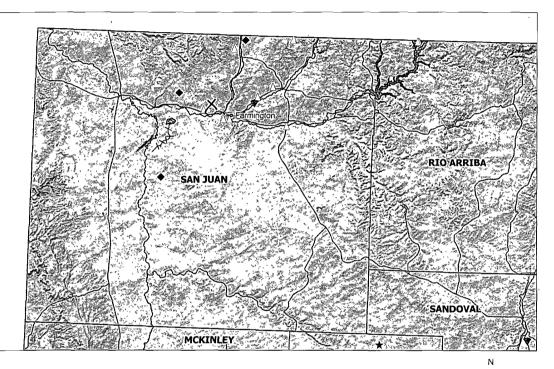


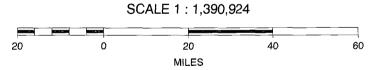
IBIEII	OW GRADE WELL COMPLETION DIAGRAM / LITHOLOGY LOG MIW
FLUSH MOUNT TRAFFIC RATED WELL COVER	SIB
LOCKING CAP CONCRETE THEY THE THE CAPE	THE LITTER OF THE SAMPLE DESCRIPTION THE
CONCRETE	
CEMENT GROUT DICES PVC FLUSSI INT. THREADED	
SCHID 40 CARINO	Soft Blow SANd - 19' some Z
TOP SAND	
INCH FVC 0.010 SCED 40 FILISH INT THREADED SCREEN	STARTED IN SAND STONS
STM SCIERN 7. MANG SOR VIDE 100 GAP SET RES TOTAL DEPTH	STILL IN SAND STONE
Well Materials Used:Sks 10-12 Silica Sand	water No water
Sks Bentonite Chips Sks Class "A" Coment Sks Qaickerets Ft Blank Casing Ft Screen	STILL IN SAND STONY
Well Development: Balled Pumped	STITING STATE OF THE STATE OF T
Representati	HIT WATER AT 105' 10.
	WATER COME UP TO 102'
1	SIZE: 8" - 3" LOCATION: PA Good to 19 AL BORING DEPTH: 105 ELEVATION:
DRILLING COMPANY: KYYEK DAT	E STARTED: 3 //0 / DATE COMPLETED 3 //0 / GEOLOGIST:
	Kyvek Energy Services, Inc. Environmental Drilling 134 Road 3000
REVISIONS BY DATE JOB #	Aztec, NN 87410 DATE DRAWN PAGE _ OF _ O



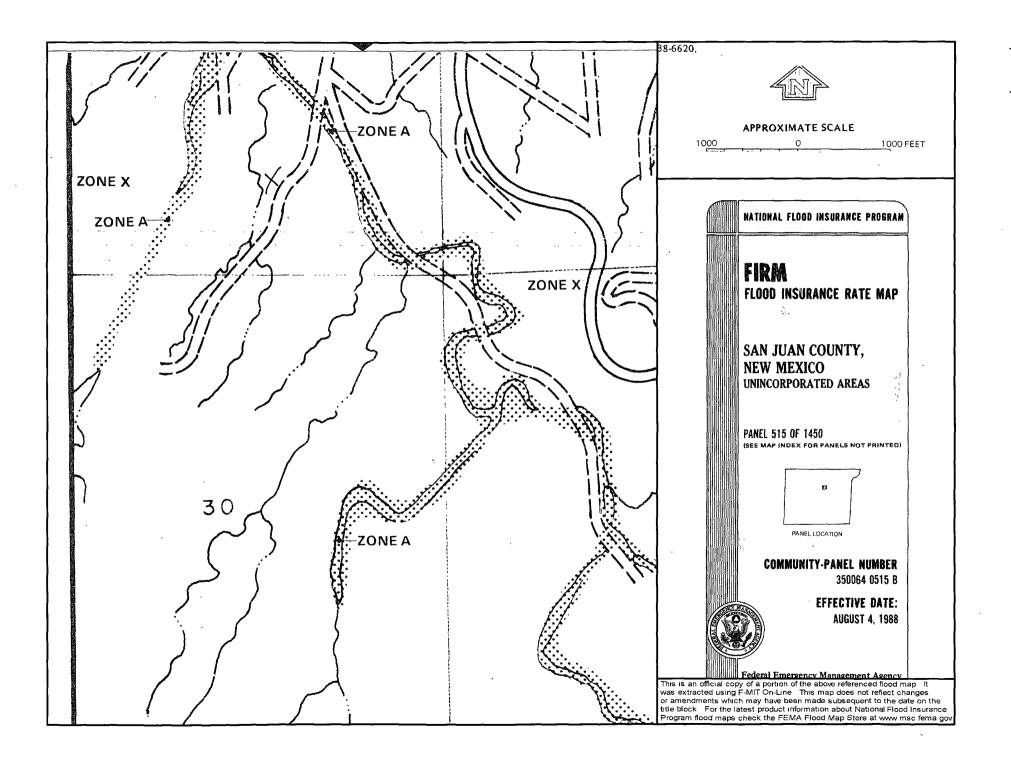
MINES, MILLS AND QUARRIES WEB MAP/HAGOOD 19

Mines, Mills	& Quarries Commodity Groups						
Δ	△ Aggregate & Stone Mines						
•	Coal Mines						
*	Industrial Minerals Mines						
•	Industrial Minerals Mills						
	Metal Mines and Mill Concentrate						
	Potash Mines & Refineries						
	Smelters & Refinery Ops.						
¥	Uranium Mines						
•	Uranium Mills						
Population							
	Cities - major						
Transportation	Transportation						
++	Railways						









Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Hagood 19 is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. A test well was drilled for the Hagood 19 and groundwater depth is at 105'. There are no iWATERS data points located in the area as indicated on the TOPO Map. The hydro geologic analysis indicates the groundwater depth and the Nacimiento formation will create a stable area for this new location.

Hydrogeological Report for Hagood 19

Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

Hydraulic Properties:

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

References:

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207. Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

Tally, Ethel

From:

Sent:

Tally, Ethel
Thursday, March 12, 2009 1:59 PM
'mark_kelly@nm.blm.gov'

To:

Subject:

PIT CLOSURE NOTIFICATION

The following temporary pit will be closed on-site. The new OCD Pit Rule 17 requires the surface owner be notified.

Hagood 19

Please call Tamra Session (X9834) or myself (X4027) if you have questions or concerns.

Thank You,

Ethel Tally ConocoPhillips-SJBU 3401 E. 30th Farmington NM 87402 (505)599-4027 Ethel.Tally@ConocoPhillips.com DISTRICT I 1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II 1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410

¹API Number

DISTRICT IV

18 Dedicated Acres

248.92 (S/2)

1220 S. St. Francis Dr., Santa Fe, N.M. 87505

18 Joint or Infill

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, N.M. 87505

*Pool Code

14 Consolidation Code

State of New Mexico

Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

*Pool Name

State Lease - 4 Copies

Fee Lease - 3 Copies

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

			ļ			Y	BASIN DA	KOTA	
*Property C	ode				⁶ Property HAGO(Well Number
OGRID No. Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP.								* Elevation 5442	
					10 Surface	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
22	19	29 N 13 W 660 SOUTH 1882 EAS							SAN JUAN
			11 Botto	om Hole	Location I	f Different Fro	om Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
									Ì

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 Order No.

16///		S 88°36	5'02" E			4117.70		17 OPERATOR CERTIFICATION
2 2632.94	TO TO	LOT	۲ 7	LOT 6	LOT 5		2621.39'	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organisation either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
N 0°36'22" E	LOT 2	LOT 10	LOT 11 SECTI	LOT 12	LOT 13		S 0°29'47" W	Signature Date Printed Name
								18 SURVEYOR CERTIFICATION
2629.54	LOT 3		LOT 17 LAT: 36.70 DNG: 108.20		LOT 15 USA	LOT 14 SF-079065	2620.00	I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 10/10/07 CHALL W. L. W. Date of Survey MEX. MEX. Signature and Sail of resistances surveyor.
N 0:36:31 E	101		AT: 36° 4; IG: 108° 14 Lot 20		LOT 22	1882' LOT 23	S 0.29.40. W	17078 PROFESSIONAL
		N 88°5	5'43" W		•	4127.70		Certificate Number

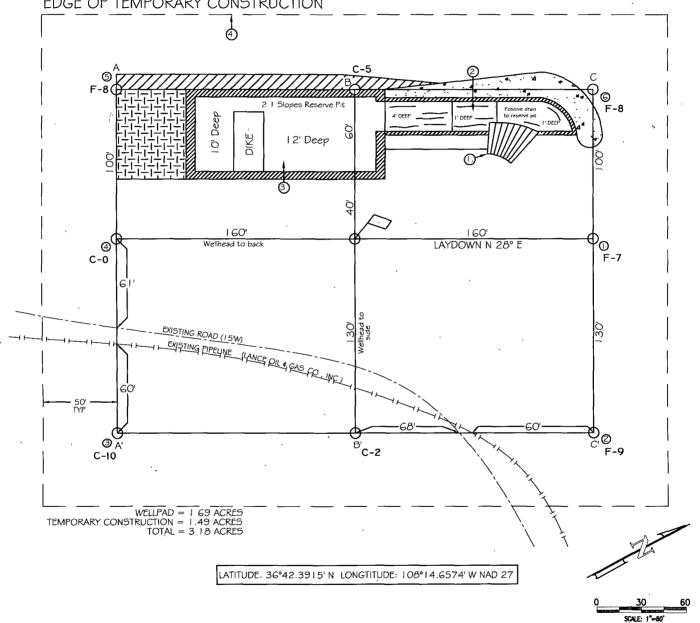
BURLINGTON RESOURCES OIL & GAS CO. LP.

HAGOOD 19 - 660' FSL \$ 1882' FEL

SECTION 19, T-29-N, R-13-W, N.M.P.M., SAN JUAN COUNTY, N.M. GROUND ELEVATION: 5442 - DATE: OCTOBER 10, 2007

- I. RAMP INTO PIT CONSTRUCTED FROM PAD GRADE INTO FLARE AREA AT 5% SLOPE
- APPROXIMATE 13'x75' PIT AREA LINED WITH 12 MIL POLYLINER
- RESERVE PIT DIKE TO BE 8' ABOVE DEEP SIDE (OVERFLOW-3' WIDE AND I' ABOVE SHALLOW SIDE)
- 4. EDGE OF TEMPORARY CONSTRUCTION DEFINED IN FIELD W/G' T-POST

EDGE OF TEMPORARY CONSTRUCTION



- 1.) CONTRACTOR SHOULD CALL "ONE-CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELLPAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONST.
- 2.) UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

SURVEYED: 10/10/07	REV. DATE:	APP. BY M.W.L.
DRAWN BY: H.S.	DATE DRAWN: 10/24/07	FILE NAME: 7936L01



P.O. BOX 3651 FARMINGTON, NM 87499 OFFICE: (505)334-0408

BURLINGTON RESOURCES OIL & GAS COMPANY LP. HAGOOD 19 - 660' FSL & 1882' FEL SECTION 19, T-29-N, R-13-W, N.M.P.M., SAN JUAN COUNTY, N.M. GROUND ELEVATION: 5442 - DATE: OCTOBER 10, 2007

ELEVATION A-A'			<u>E</u>		
5460	 				
5450	 	• • •			
5440	 	• • • • • • • • • • • • • • • • • • • •		77777////	<u>// </u>
5430	 . /				
5420	 				
		_			
3 <u>-B'</u>	 		<u> </u>	<u> </u>	
5460	 				
5450	 				
5440	 · ///////</th <th>777</th> <th>/</th> <th></th> <th></th>	777	/		
5430	 	<u>//</u>			
5420	 				
	,				
c-c,		9	Ē	•	
5460	 				
5450	 				
5440	 				
5430	 		4 4 4	4 A	
5420	 				

I'' = 60' - HORIZ.I'' = 30' - VERT.

NOTES:

2.) UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

SURVEYED: 10/10/07	REV. DATE:	APP. BY M.W.L.
DRAWN BY: H.S.	DATE DRAWN: 10/24/07	FILE NAME: 7936C01



P.O. BOX 3651 FARMINGTON, NM 87499 OFFICE: (505)334-0408

I.) CONTRACTOR SHOULD CALL "ONE-CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELLPAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONST.

Burlington Resources Oil & Gas Company, LP San Juan Basin Closure Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- · Copy of Deed Notice will be filed with County Clerk

General Plan:

- 1 All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division—approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011)
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given prior to the Aztec Division office between 72 hours and one week via email, or verbally. The notification of closure will include the following:
 - i. Operator's name
 - Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	1000(500)

9. A five point composite sample will be taken from the cavitation pit pursuant to 19.15.17.13(B)(1)(b)(i) in order to assure there has not been any type of release.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500

- 10. Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.
- 11. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.
- 12. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011
- 13. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 14. Notification will be sent to OCD when the reclaimed area is seeded.
- 15. BR shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Forest Service Seed Mix	Variety	Pounds/Acre
Indian ricegrass	Paloma	1.0
Western wheatgrass	Arriba	2.0
Blue Gramma	Hacheta or Alma	1.0
Antelope Bitterbrush	Unknown	.10
Four-wing saltbush	Unknown	.25
Pubescent wheatgrass	Luna	2.0
Intermediate wheatgrass	Oahe	2.0
Small burnet	Delar	1.0

16. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.