	State of New Mexico Pand Natural Resource	s Form C July 21,
REGISTERED	portment	For temporary pits, closed-loop sytems, and below-grac tanks. submit to the appropriate NMOCD District Office.
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87505	For permanent pits and exceptions submit to the Santa F Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
	Closed-Loop System, Below-Gra	de Tank, or
	ternative Method Permit or Close	
	low-grade tank, or proposed alternative metho	le tank, or proposed alternative method nitted or non-permitted pit, closed-loop system, od
		oop system, below-grade tank or alternative req
	sest does not relieve the operator of liability should operation perator of its responsibility to comply with any other applical	s result in pollution of surface water, ground water or the ole governmental authority's rules, regulations or ordinances.
Image: Description of the second s	87499	OGRID#: <u>14538</u>
API Number: 3003920		ber:
2	36.66412°N Longitude:	-107.29139°W NAD: X 1927 19
Pit: Subsection F or G of 19.15.17.11 NM Temporary: Drilling Workover		
Permanent Emergency Cavitation Lined Unlined Liner type String-Reinforced Liner Seams: Welded Factory		HDPE PVC Other
Lined Unlined Liner type String-Reinforced Liner Seams: Welded Factory Closed-loop System: Subsection H of Type of Operation: P&A Drillin Drying Pad Above Ground Steel Lined Unlined Liner type:	: Thickness mil [] LLDPE Other Volume: f 19.15.17.11 NMAC ng a new well [] Workover or Drilling (Applies notice of intent)	bbl Dimensions Lx Wx D to activities which require prior approval of a permit o
Lined Unlined Liner type String-Reinforced Liner Seams: Welded Factory 3 Closed-loop System: Subsection H of Type of Operation: P&A Drillin Drying Pad Above Ground Steel Liner Seams: Welded Factory 4 X Below-grade tank: Subsection I of 19.1 Volume: 120 bbl Tank Construction material: Secondary containment with leak detection		bbl Dimensions Lx Wx D to activities which require prior approval of a permit o
Lined Unlined Liner type String-Reinforced Liner Seams: Welded Factory 3 Closed-loop System: Subsection H of Type of Operation: P&A Drillin Drying Pad Above Ground Steel Liner type: Lined Unlined Liner type: Liner Seams: Welded Factory 4 X Below-grade tank: Subsection I of 19.1 Volume: 120 bbl Tank Construction material: Secondary containment with leak detection Visible sidewalls and liner V Liner Type: Thickness mi 5 Alternative Method: Alternative Method:		bbl Dimensions Lx Wx D to activities which require prior approval of a permit o]HDPEPVDOther utomatic overflow shut-off

6,	
Eencing: 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, hospite	il, institution or church)
real task in ignit rout straines of barbed wire eventy spaced between one and four feet	-,
X Alternate. Please specify <u>4' hog wire fencing topped with two strands barbed wire.</u>	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
X Screen Netting Other	
Monthly inspections (If netting or screening is not physically feasible)	
8 Signs: Subsection C of 19.15.17.11 NMAC	
L 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	
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:	
X Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for (Fencing/BGT Liner)	convideration of annount
	consideration 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 oritoric below in the state of the second	
consideration of approval. Applicant must attach justification for request. Please refer to 10 15 13 10 NAMES	
does not apply to drying pads or 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.	
Since of the State Engineer - TwATERS database search; USGS; Data obtained from nearby wells	Yes X No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, labels is it is a second	Yes XNo
lake (measured from the ordinary high-water mark). - 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 XNo
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	
- 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.	
(Applied to permanent pits)	Yes No
- Visual inspection (certification) of the proposed site; Aerial photo: Satellite image	XNA
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 XNo
- 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	Yes XNo
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within 500 feet of a wetland.	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 confirmation or verification or map from the NM EMNRD - Mining and Mineral Division 	Yes XNo
Within an unstable area.	
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes XNo
Within a 100-year floodplain - FEMA map	Yes XNo
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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 analysis in Planaria Checklist (19.15.17.9 NMAC)	
and the me apple and the me apple and the mark in the bay the terms in the	
and the second s	
Ilydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19:15.17.9 X Siting Criteria Compliance Demonstrations based upon the	
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC X Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC	
X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
 X 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	
Nuisance or Hazardous Odors, including H2S, Prevention Plan Emergency Response Plan	
Oil Field Waste Stream Characterization	
Monitoring and Inspection Plan	
Closure 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	i
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 X Below-grade Tank Closed-loop System	
Proposed Closure Method: X Waste Excavation and Removal (Below-Grade Tank)	
Waste Removal (Closed-loop systems only)	
On-site Closure Method (only for temporary pits and closed-loop systems)	
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)	
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 liquide drilling fluide and dr	
A Disposal facility varie and Permit Number (for liquids, drilling fluids and drill cuttings)	
 X Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC X Re-vegetation Plan - based upon the appropriate requirements of Subsection 1 of 19.15.17.13 NMAC 	
X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	
- The state of subsection O of 19.15.17.13 NMAC	

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16 <u>Waste Removal Closure For Closed-loop Systems That Utilize Above Gro</u> Instructions: Please identify the facility or facilities for the disposal of hand-	ound Steel Tanks or Haut off Rise Only 1016 1713 1818	
Instructions: Please identify the facility or facilities for the disposal of liquid are required.	s, drilling fluids and drill cuttings. Use attachment if more than i	C) wo facilities
Disposal Facility Name:	Disposal Residue Desis a	
Disposal Facility Name:	Disposal Facility Permit #:	
Will any of the proposed closed-loop system operations and associated	Disposal Facility Permit #:	
		re service and operations?
Required for impacted areas which will not be used for future service and ope	erations:	
Soil Backfill and Cover Design Specification - based upon the a	appropriate requirements of Subsection H of 19.15.17.13 NI	MAC
Re-vegetation Plan - based upon the appropriate requirements o Site Reclamation Plan - based upon the appropriate requirement	r Subsection F of 19.15.17.13 NMAC	
	Subsection O of 19:15:17:13 NMAC	
17 Siting Criteria (Regarding on-site closure methods only: 19.15.17.1		
Instructions: Each siting criteria requires a demonstration of complication is dealers		
certain sung criteria may require administrative approval from the appropriate distri- for consideration of approval. Justifications and/or demonstrations of equivalency and	ict office or may be considered an exception which must be submitted to a ramified. Block of the first state of the submitted to	below, Requests regarding changes to the Santa Fe Environmental Bureau office.
Ground water is less than 50 feet below the bottom of the buried waste.	Conquirea. Freuse rejer to 19.15.17.10 NMAC for guidance.	
 NM Office of the State Engineer - iWATERS database search: USGS: E 	Drift obtained for an an	Yes No
		N/A
Ground water is between 50 and 100 feet below the bottom of the burier	d waste	Yes No
- NM Office of the State Engineer - iWATERS database search: USGS: D		N/A
Ground water is more than 100 feet below the bottom of the buried wast		Yes No
 NM Office of the State Engineer - iWATERS database search; USGS; Database 	ata obtained from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other (measured from the ordinary high-water park)	significant watercourse or lakebed, sinkhole, or playa lake	
(in the ordinary mgn water mark):		
- Topographic map: Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or chu - Visual inspection (certification) of the proposed site; Aerial photo: satellite	irch in existence at the time of initial application.	Yes No
and the proposed site, Aerial profos satellite	: image	
Within 500 horizontal feet of a private, domestic fresh water well or spring that purposes, or within 1000 horizontal fee of any other feeth under set	less than five households use for demonstration of the	Yes No
r the second the second the second se	B existence of the time of the initial and the st	
 NM Office of the State Engineer - iWATERS database: Visual inspection (Within incorporated municipal boundaries or within a defined municipal fresh w pursuant to NMSA 1978. Section 3.27.3, as amondod. 	certification) of the proposed site	
to the other of the other of the other of the other of the other o	Yes No	
Written confirmation or verification from the municipality; Written approv	al obtained from the municipality	
Vithin 500 feet of a wetland US Fish and Wildlife Wetland Identification many Tennens biology biology		Yes No
 US Fish and Wildlife Wetland Identification map: Topographic map; Visus Within the area overlying a subsurface mine. 	al inspection (certification) of the proposed site	
 Written confirantion or verification or map from the NM EMNRD-Mining 	and Mineral Division	Yes No
Vithin an unstable area.		
- Engineering measures incorporated into the design; NM Bureau of Geology	& Mineral Resources: USGS; NM Geological Society:	
Topographic map Vithin a 100-year floodplain.	0,i	
- FEMA map		Yes No
*		
n-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: F	ach of the following items must be seen to be a	
a check mark in the box, that the documents are attached.	action of the following tems must bee anached to the closu	re plan. Please indicate,
Siting Criteria Compliance Demonstrations - based upon the approp	priate requirements of 19.15.17.10 NMAC	
Proof of Surface Owner Notice - based upon the appropriate require	ements of Subsection F of 19.15.17.13 NMAC	
Construction/Design Plan of Burial Trench (if applicable) based up	on 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 10	9 15 17 LENMAC
riolocois and riocedures - based upon the appropriate requirements	s of 19.15.17.13 NMAC	
Confirmation Sampling Plan (if applicable) - based upon the approp	riate requirements of Subsection F of 19.15.17.13 NMAC	
Waste Material Sampling Plan - based upon the appropriate require	ments of Subsection F of 19.15.17.13 NMAC	
Disposal Facility Name and Permit Number (for liquids, drilling flui	ids and drill cuttings or in case on-site closure standards can	not be achieved)
Soli Cover Design - based upon the appropriate requirements of Sub	section H of 19.15.17.13 NMAC	
Re-vegetation Plan - based upon the appropriate requirements of Su	bsection I of 19.15.17.13 NMAC	

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19	
Operator Application	Certification:
Thereby certify that the in	formation submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print):	Crystal Tafoya Title: Regulatory Technician
Signature:	aptal Talona Date: 12/22/2008
e-mail address:	crystar taroyang ognocophilitys con Telephone: 505-326-9837
20	
OCD Approval:	Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative S	
oco representative s	Approval Date:
Title:	
	OCD Permit Number:
21	
Closure Report (requir	red within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC
manuctions: Operators are	e required to obtain an approved closure plan prior to implementing any closure activities and the initial state
and the second second second second	bmitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an been obtained and the closure activities have been completed.
of y construction of print right	
	Closure Completion Date:
22	
Closure Method:	
Waste Excavation a	and Removal On-site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)
If different from ap	proved plan, please explain.
23 Closure Report Reporting	n Waste Demound Closure For Closed has the state of the s
Instructions: Please identif	g Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: fy the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
were utilized.	y and young of youngest of the regulas, and ing fullas and arul cuttings were disposed. Use attachment if more than two facilities
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	
Were the closed-loop sys	stem operations and associated activities performed on or in areas that will not be used for future service and appropriate 2
Yes (If yes, please d	lemonstrate complilane to the items below)
Required for impacted an	reas which will not be used for future service and operations:
Site Reclamation (Pl	hoto Documentation)
Soil Backfilling and	
Re-vegetation Applie	cation Rates and Seeding Technique
24	
Closure Report Attac	chment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in
me box, mu me bocume	
	lotice (surface owner and division)
	ice (required for on-site closure)
Plot Plan (for on-si	ite closures and temporary pits)
Confirmation Samp	pling Analytical Results (if applicable)
	mpling Analytical Results (if applicable)
	ame and Permit Number
Soil Backfilling and	
	lication Rates and Seeding Technique
	Photo Documentation)
On-site Closure Loo	
	Cation: Latitude: NAD 1927 1983
25	
Operator Closure Certific	
nereny certify that the inform he closure complians with all.	mation and attachments submitted with this closure report is ture, accurate and complete to the best of my knowledge and belief. I also certify that
ac costore computes with all t	applicable closure requirements and conditions specified in the approved closure plan.
lame (Print):	Title:
ignature:	Date:
mail address:	
-mail address:	Telephone:

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New Mexico Office of the State Engineer _

New Mexico Office of the State Engineer POD Reports and Downloads
Township: 28N Range: 04W Sections:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) CNon-Domestic CDomestic All
POD / Surface Data Report Avg Depth to Water Report Water Column Report
Clear Form iWATERS Menu Help
WATER COLUMN REPORT 08/20/2008
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Depth Depth Water (in

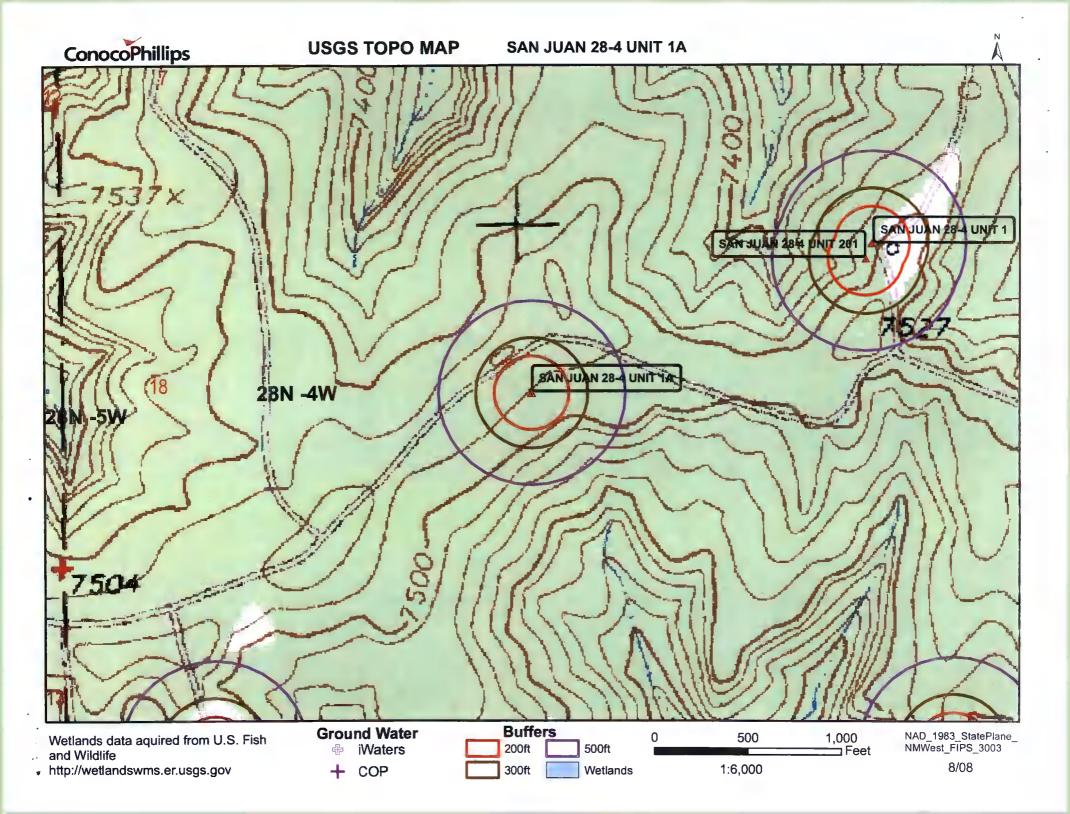
r

(quarters are biggest to smallest)						Depth	Depth	Water (in			
POD Number	Tws	Rng	Sec	P	PP	Zone	х	Ŷ	Well	Water	Column
SJ 00045	28N	04W	07						600		
SJ 02385	28N	04W	26	1	1 1				160	85	75

Record Count: 2

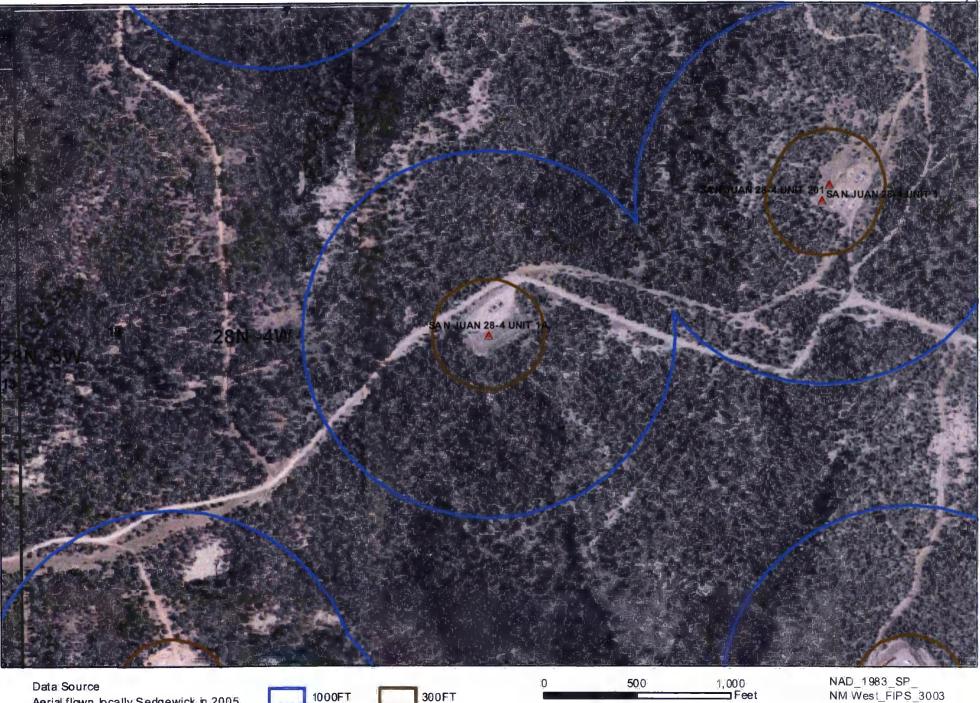
				<i>)ffice of th</i> ports and		<u> </u>				
Тс	wnship: 28	3N Rang	e: 05W	Section	s:	and the strength of the streng				
NAD	27 X:	Y:		Zone:		Searc	ch Radiu	s:		
County:		Basin:			N N	Number:		Suffix:		
Owner Name: (First)		– (Last)			⊂ Non-I	Oomestic	⊂ Dom	estic @	All
POD / Su	face Data R	eport	Av	g Depth to	Water Re	port	Wate	er Column	Report	x the
		Clear	Form	IWATE	RS Menu	Help				
			WATE	R COLUMN	REPORT	08/20/20	08			
				3=SW 4=S			_			
	-			smalles		v	Depth Well	Depth	Water	(in
POD Number SJ 01893	Tws 28N	Rng Sec 05W 18	9 9 9 4	Zone	x	¥	390	Water 290	Column 100	
SJ 01093 SJ 00047	28N	05W 18	Ŧ				465	265	200	
SJ 00036	28N	05W 28	3				303	243	60	

Record Count: 3





AERIAL MAP SAN JUAN 28-4 UNIT 1A



Data Source Aerial flown locally Sedgewick in 2005.

300FT 1000FT

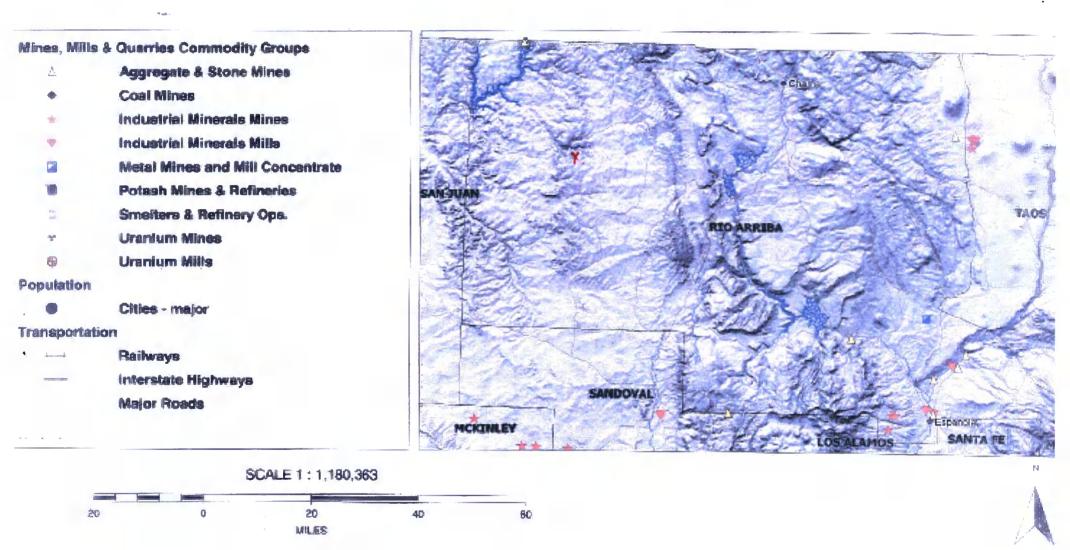
50.0	
1:6,000	

NAD_1983_SP_ NM West_FIPS_3003 8/.08

Mines, Mills and Quarries Web Map

SAN JUAN 28-4 UNIT 1A

Unit Letter: F, Section: 18, Town: 028N, Range: 004W



SAN JUAN 28-4 UNIT 1A

Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'SAN JUAN 28-4 UNIT 1A', which is located at 36.66412 degree, North latitude and 107.29139 degree, West longitude. This location is located on the Gobernador 7.5' USGS topographic quadrangle. This location is in section 18 of Township 28 North Range 4 West of the Public Land Survey System (New Mexico Principal Meridian). This location is located in Rio Arriba County, New Mexico. The nearest town is Dulce, located 24.7 miles to the northeast. The nearest large town (population greater than 10,000) is Farmington, located 51.0 miles to the west (National Atlas). The nearest highway is US Highway 64, located 3.2 miles to the north. The location is on National Forest land and is 2,641 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Upper San Juan. Colorado. New Mexico, Subbasin. This location is located 2278 meters or 7471 feet above sea level and receives 17 inches of rain each year. The vegetation at this location is classified as Rocky Mountain Ponderosa Pine Woodland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 104 feet. This estimation is based on the data published on the New Mexico Engineer's iWaters Database website and water depth data from ConocoPhillips' Cathodic wells. Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. The nearest stream is 740 feet to the southeast and is classified by the USGS as an intermittent stream. The nearest perennial stream is 5,247 feet to the northeast. The nearest water body is 5,247 feet to the northeast. It is classified by the USGS as a perennial lake and is 0.1 acres in size. The nearest spring is 2,648 feet to the east. All stream, river, water body and spring information was determined as per the USGS Hydrographic Dataset (High Resolution), downloaded 3/2008. The nearest water well is 1,785 feet to the west. The nearest wetland is an 85.7 acre Ravine located 16,268 feet to the north. The slope at this location is 13 degree, to the southeast as calculated from USGS 30M National Elevation Dataset. This information is also discerned from the aerial and topographic map included. The surface geology at this location is SAN JOSE FORMATION--Siltstone, shale, and sandstone with a Sandstone dominated formations of ali ages substrate. There is no SSURGO soil data available for this location. The nearest underground mine is 11.9 miles to the north as indicated on the Mines, Mills and Quarries Map of New Mexico provided.

Regional Hydrogeological context:

The San Jose Formation of Eocene age occurs in 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 State line and overlies the Animas Formation in the area generally 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 variegated shale. Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin). Ground water is associated with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modifications, namely erosion and structural deformation. Transmissivity data for San Jose Formation are minimal. Values of 40 and 120 feet squared per day were determined from two aguifer tests (Stone et al, 1983, table 5). The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0.15 to 61 gallons per minute and the median is 5 gallons per minute. Most of the wells provide water for livestock and domestic use. The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily adsorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit.

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.

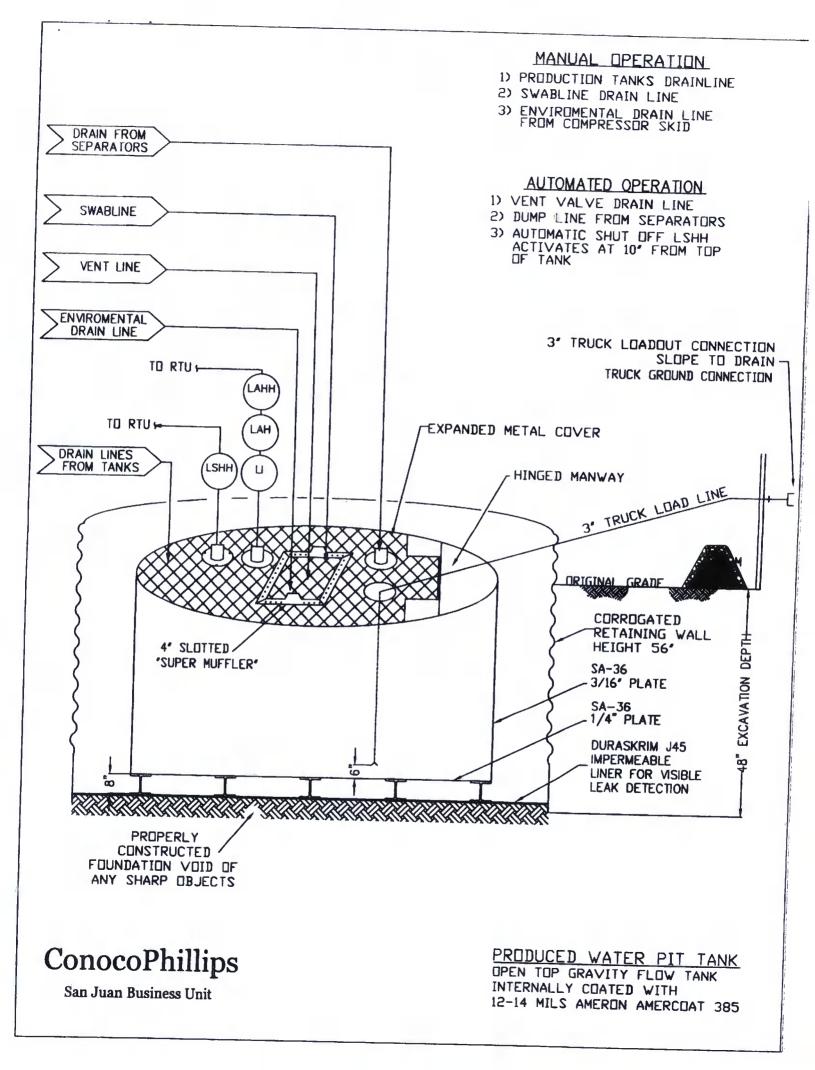
Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Design and Construction

In accordance with NMAC 19.15.17 the following information describes the design and construction of below grade tanks on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

- 1. BR will design and construct a properly sized and approved BGT which will contain liquids and should prevent contamination of fresh water to protect the public health and environment.
- 2. BR signage will comply with 19.15.3.103 NMAC when BR is the operator. If BR is not the operator it will comply with 19.15.17.11NMAC. BR includes Emergency Contact information on all signage.
- 3. BR has approval to use alternative fencing that provides better protection. BR constructs fencing around the BGT using 4 foot hog wire fencing topped with two strands of barbed wire, or with a pipe top rail. A six foot chain link fence topped with three strands of barbed wire will be use if the well location is within 1000 feet of permanent residence, school, hospital, institution or church. BR ensures that all gates associated with the fence are closed and locked when responsible personnel are not onsite.
- 4. BR will construct a screened, expanded metal covering, on the top of the BGT.
- 5. BR shall ensure that a below-grade tank is constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight as shown on design drawing and specification sheet.
- 6. The BR below-grade tank 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 as shown on design drawing.
- 7. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR has built in shut off devices that do not allow a below-grade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
- 8. BR will construct and use a below-grade tank that does not have double walls. The below-grade tank's side walls will be open for visual inspection for leaks, the below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface and the below-grade tank is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.

- 9. BR has equipped the below-grade tanks with the ability to detect high level in the tank and provide alarm notification and shutdown process streams into the tank. Once high level is detected RTU logic closes the inlet separator sales valve and does not permit vent valve to open. This shutdown of the sales valve and gagging of the vent valves prevents any hydrocarbon process streams from entering the pit tank once a high level is detected. Furthermore, an electronic page is sent to the BR MSO for that well site and to the designated contract "Water-Hauling" Company indicating a high level and that action must be taken to address this alarm. The environmental drain line from BR's compressor skid under normal operating conditions is in the open position. The environmental drain line is in place to capture any collected rain water or spilled lubricants from our compressor skids. The swab drain line is a manually operated drain and by normal operating procedures is in the closed position. The tank drain line is also a manually operated drain and during normal operations it is in the closed position.
- 10. The geomembrane liner consists of a 45-mil flexible LLDPE material manufactured by Raven Industries as J45BB. This product is a four layer reinforced laminated containing no adhesives. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications. The J45BB is reinforced with 1300 denier (minimum) tri-directional scrim reinforcement. It exceeds ASTMD3083 standard by 10%. J45BB has a warranty for 20 years from Raven Industries and is attached. It is typically used in Brine Pond, Oilfield Pit liner and other industrial applications. The manufacture specific sheet is attached and the design attached displays the proper installation of the liner.
- 11. The general specification for design and construction are attached in the BR document.



PROPERTIES TEST METHOD J30BB J36BE **J45BE** Min. Roll Typical Roll Min. Roll Typical Roll Min. Roll Typical Roll Averages Averages Averages Averages Averages Averages Appearance Black/Black Black/Black Black/Black Thickness **ASTM D 5199** 27 mil 30 mil 32 mil 36 mil 40 mil 45 mil Weight Lbs Per MSF 126 lbs 140 lbs 151 lbs ASTM D 5261 168 lbs 189 lbs (oz/yd²) 210 lbs (18.14)(20.16)(21.74)(24.19)(27.21)(30.24)Construction **Extrusion laminated with encapsulated tri-directional scrim reinforcement Ply Adhesion **ASTM D 413** 16 lbs 20 lbs 19 lbs 24 lbs 25 lbs 31 lbs 88 lbf MD 1" Tensile Strength 110 lbf MD 90 lbf MD ASTM D 7003 113 lbf MD 110 lbf MD 138 lbf MD 63 lbf DD 79 lbf DD 70 lbf DD 87 lbf DD 84 lbf DD 105 lbf DD 1" Tensile Elongation @ 550 MD 750 MD **ASTM D 7003** 550 MD 750 MD 550 MD Break % (Film Break) 750 MD 550 DD 750 DD 550 DD 750 DD 550 DD 750 DD 1" Tensile Elongation @ 20 MD 33 MD 20 MD ASTM D 7003 30 MD 20 MD Peak % (Scrim Break) 36 MD 20 DD 33 DD 20 DD 31DD 20 DD 36 DD 75 lbf MD 97 lbf MD Tongue Tear Strength 75 lbf MD **ASTM D 5884** 104 lbf MD 100 lbf MD 117 lbf MD 75 lbf DD 90 lbf DD 75 lbf DD 92 lbf DD 100 lbf DD 118 lbf DD

218 lbf MD

210 lbf DD

146 lbf MD

141 lbf DD

< 0.5

64 lbf

180° F

-70° F

MD = Machine Direction

Grab Tensile

Trapezoid Tear

* Dimensional Stability

Maximum Use Temperature

Minimum Use Temperature

Puncture Resistance

DD = Diagonal Directions

OURA-SLORM>

Note: Minimum Roll Averages are set to take into account product variability in addition to testing variability between laboratories.

180 lbf MD

180 lbf DD

130 lbf MD

130 lbf DD

<1

65 lbf

180° F

-70° F

222 lbf MD

223 lbf DD

189 lbf MD

172 lbf DD

<0.5

83 lbf

180° F

-70° F

*Dimensional Stability Maximum Value

180 lbf MD

180 lbf DD

120 lbf MD

120 lbf DD

<1

50 lbf

180° F

-70° F

ASTM D 7004

ASTM D 4533

ASTM D 1204

ASTM D 4833

**DURA-SKRIM J30BB. J36BB & J45BB are a four layer reinforced laminate containing no adhesives. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications. DURA-SKRIM J30BB, J36BB & J45BB are reinforced with a 1300 denier (minimum) tri-directional scrim reinforcement.

Note: RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no publicantee of substractory results from resultance upon contained information or recommendations and subcoms all accept for resulting loss or damage.



PLANT LOCATION

Sioux Falls, South Dakota

SALES OFFICE

220 lbf MD

220 lbf DD

160 lbf MD

160 lbf DD

<1

80 lbf

180° F

-70° F

257 lbf MD

258 lbf DD

193 lbf MD

191 lbf DD

< 0.5

99 lbf

180° F

-70° F

P.O. Box 5107 Sioux Falls, SD 57117-5107 (605) 335-0174 (605) 331-0333 FAX **800-635-3456**

RAVEN INDUSTRIES INC. EXPOSED GEOMEMBRANE LIMITED WARRANTY

Raven Industries Inc. warrants Dura-Skrim J30BB, J36BB, and J45BB to be free from manufacturing defects and to be able to withstand normal exposure to sunlight for a period of 20 years from the date of sale for normal use in approved applications in the U.S and Canada, excluding Hawaii. This warranty is effective for products sold and shipped from January 1, 2008 to December 31, 2008.

This Limited Warranty does not include damages or defects in the Raven geomembrane resulting from acts of God, casualty or catastrophe including but not limited to: earthquakes, floods, piercing hail, or tornadoes. The term "normal use" as used herein does not include, among other things improper handling during transportation, unloading, storage or installation, the exposure of Raven geomembranes to harmful chemicals, atypical atmospheric conditions, abuse of Raven geomembranes by machinery, equipment or people; improper site preparation or covering materials, excessive pressures or stresses from any source or improper application or installation. Raven geomembrane material warranty is intended for commercial use only and is not in effect for the consumer as defined in the Magnuson Moss Warranty or any similar federal, state, or local statues. The parties expressly agree that the sale hereunder is for commercial or industrial use only.

Should defects or premature loss of use within the scope of the above Limited Warranty occur, Raven Industries Inc. will, at its option, repair or replace the Raven geomembrane on a pro-rata basis at the then current price in such manner as to charge the Purchaser/User only for that portion of the warranted life which has elapsed since purchase of the material. Raven Industries Inc. will have the right to inspect and determine the cause of any alleged defect in the Raven geomembrane and to take appropriate steps to repair or replace the Raven geomembrane if a defect exists which is covered under this warranty. This Limited Warranty extends only to Raven's geomembrane, and does not extend to the installation service of third parties nor does it extend to materials furnished or installed by others in connection with the intended use of the Raven geomembranes.

Any claim for any alleged breach of this warranty must be made in writing, by certified mail, to the General Manager of Engineered Films Division of Raven Industries Inc. within ten (10) days of becoming aware of the alleged defect. Should the required notice not be given, the defect and all warranties are waived by the Purchaser, and Purchaser shall not have any rights under this warranty. Raven Industries Inc. shall not be obligated to perform repairs or replacements under this warranty unless and until the area to be repaired or replaced is clean, dry, and unencumbered. This includes, but is not limited to, the area made available for repair and/or replacement of Raven geomembrane to be free from all water, dirt, sludge, residuals and liquids of any kind. If after inspection it is determined that there is no claim under this Limited Warranty, Purchaser shall reimburse Raven Industries Inc. for its costs associated with the site inspection.

In the event the exclusive remedy provided herein fails in its essential purpose, and in that event only, the Purchaser shall be entitled to a return of the purchase price for so much of the material as Raven Industries Inc. determines to have violated the warranty provided herein. Raven Industries Inc. shall not be liable for direct, indirect, special, consequential or incidental damages resulting from a breach of this warranty including, but not limited to, damages for loss of production, lost profits, personal injury or property damage. Raven Industries Inc. shall not be obligated to reimburse Purchaser for any repairs, replacement, modifications or alterations made by Purchaser unless Raven Industries Inc. specifically authorized, in writing, said repairs, replacements, modifications or alteration in advance of them having been made. Raven Industry's liability under this warranty shall in no event exceed the replacement cost of the material sold to the Purchaser for the particular installation in which it failed.

Raven Industries Inc. neither assumes nor authorizes any person other than the undersigned of Raven Industries Inc. to assume for it any other or additional liability in connection with the Raven geomembrane made on the basis of the Limited Warranty. The Limited Warranty on the Raven geomembrane herein is given in lieu of all other possible material warranties, either expressed or implied, and by accepting delivery of the material; Purchaser waives all other possible warranties, except those specifically given. This Limited Warranty may only be modified by written document mutually executed by Owner and Raven Industries Inc.

Limited Warranty is extended to the purchaser/owner and is non-transferable and non-assignable; i.e., there are no third-party beneficiaries to this warranty.

Purchaser acknowledges by acceptance that the Limited Warranty given herein is accepted in preference to any and other possible materials warranties.

THIS LIMITED WARRANTY SHALL BE GOVERNED BY SOUTH DAKOTA LAW AND VENUE FOR ALL LEGAL PROCEEDINGS IN CONNECTION WITH THIS LIMITED WARRANTY SHALL BE IN MINNEHAHA COUNTY, SOUTH DAKOTA. RAVEN INDUSTRIES INC. MAKES NO WARRANTY OF ANY KIND OTHER THAN THAT GIVEN ABOVE AND HEREBY DISCLAIMS ALL WARRANTIES, BOTH EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS IS THE ONLY WARRANTY THAT APPLIES TO THE MATERIALS REFERRED TO HEREIN AND RAVEN INDUSTRIES INC. DISCLAIMS ANY LIABILITY FOR ANY WARRANTIES GIVEN BY ANY OTHER PERSON OR ENTITY, EITHER WRITTEN OR ORAL.

RAVEN INDUSTRIES' WARRANTY BECOMES AN OBLIGATION OF RAVEN INDUSTRIES INC. TO PERFORM UNDER THE WARRANTY ONLY UPON RECEIPT OF FINAL PAYMENT AND EXECUTION BY A DULY AUTHORIZED OFFICER OF RAVEN INDUSTRIES INC.

Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of Below Grade Tank (BGT) on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all BGT. A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

- 1. BR will operate and maintain a BGT to contain liquids and solids and maintain the integrity of the liner, liner system and secondary containment system to prevent contamination of fresh water and protect public health and environment. BR will accomplish this by performing an inspection on a monthly basis, installing cathodic protection, and automatic overflow shutoff devices as seen on the design plan.
- 2. BR will not discharge into or store any hazardous waste in the BGT.
- 3. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR has built in shut off devices that do not allow a below-grade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
- 4. As per 19.17.15.12 Subsection D, Paragraph 3, BR will inspect the below-grade tank at least monthly reviewing several items which include 1) containment berms adequate and no oil present, 2) tanks had no visible leaks or sign of corrosion, 3) tank valves, flanges, and hatches had no visible leaks and 4) no evidence of significant spillage of produced liquids. In addition, BR's multi-skilled operators (MSOs) are required to visit each well location once per week. If detected on either inspection, BR shall remove any visible or measurable layer of oil from the fluid surface of a below-grade tank in an effort to prevent significant accumulation of oil overtime. The written record of the monthly inspections will include the items listed above and will be maintained for five years.
- 5. BR shall require and maintain a 10" adequate freeboard to prevent overtopping of the below-grade tank.
- 6. If the below grade tank develops a leak, or if any penetration of the pit liner or below grade tank, occurs below the liquid's surface, then BR shall remove all liquid above the damage or leak line within 48 hours. BR shall notify the appropriate district office. BR shall repair or replace the pit liner or below grade tank, within 48 hours of discovery. If the below grade tank or pit liner does not demonstrate integrity, BR shall promptly remove and install a below grade tank or pit liner that complies with Subsection I of 19.15.17.11 NMAC. BR shall notify the appropriate district office of a discovery of leaks less than 25 barrels as required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief.

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

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of Below Grade Tanks (BGTs) on Burlington Resources Oil & Gas Company, LP locations hereinafter known as BR locations. This is BR's standard procedure for all BGTs. A separate plan will be submitted for any BGT which does not conform to this plan.

General Requirements:

- BR shall close a below-grade tank within the time periods provided in Subsection A of 19.15.17.13 NMAC. This will include a) below-grade tanks 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 o f19.15.17.11 NMAC within five years, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) permitted below-grade tanks within 60 days of cessation of the below-grade tank's operation., or c) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, BR will file the C144 Closure Report as required.
- BR shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.
- 3. BR will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. Documentation of how the below-grade tank was disposed of or recycled will be provided in the closure report.
- 4. If there is any on-site equipment associated with a below-grade tank, then BR shall remove the equipment, unless the equipment is required for some other purpose.
- 5. BR shall test the soils beneath the below-grade tank to determine whether a release has occurred. BR shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. BR shall notify the division of its results on form C-141.
- 6. If BR or the division determines that a release has occurred, then BR shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

- 7. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then BR shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
- Notice of Closure will be given prior to closure 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
 - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 9. The surface owner shall be notified of BR's closing of the below-grade tank prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 10. 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.
- 11. 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 stipulated seed mixes will used on federally jurisdicted lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private 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. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. BR will repeat seeding or planting will be continued until successful vegetative growth occurs.
- 12. 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.
- 13. 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 the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
 - Soil Backfilling and Cover Installation
 - Re-vegetation application rates and seeding techniques
 - Photo documentation of the site reclamation
 - Confirmation Sampling Results
 - Proof of closure notice