		State of New Mexico	Form C- July 21, 2
-	REGISTERED	ation Division St. Francis Dr.	tanks, submit to the appropriate NMOCD District Office.
1000 Rio Brazos Rd. District IV 1220 S. St. Francis I	, Aztec, NM 87410	Santa Fe, NM 87505	For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
1220 0. 00 114400 0	Pit. Clos	ed-Loop System, Below-Grad	e Tank. or
	Proposed Altern	ative Method Permit or Closur	e Plan Application
	Type of action: X Permit of	of a pit closed-loop system below-grade t	ank or proposed alternative method
	Closure	of a pit, closed-loop system, below-grade	tank, or proposed alternative method
	Modific	ation to an existing permit	
	Closure	plan only submitted for an existing permi	tted or non-permitted pit, closed-loop system,
	below-g	rade tank, or proposed alternative method	
Instructions:	Please submit one application (F	⁷ orm C-144) per individual pit, closed-loc	op system, below-grade tank or alternative requ
environ	ment. Nor does approval relieve the operator of	s not releve the operator of hability should operations r of its responsibility to comply with any other applicable	esuit in pollution of surface water, ground water of the governmental authority's rules, regulations or ordinances.
1 Operator: Burl	ington Resources Oil & Gas Con	npany, LP	OGRID#: <u>14538</u>
Address: PO I	lox 4289, Farmington, NM 8749)9	
Facility or well	name: SAN JUAN 27-5 UNIT 83	3	
API Number: _	3003920208	OCD Permit Numbe	r:
U/L or Qtr/Qtr:	B Section: 9	Township: 27N Range:	5W County: Rio Arriba
Center of Propo	sed Design: Latitude:	36.59323°N Longitude:	-107.35965°W NAD: X 1927 193
Surface Owner:	X Federal State	Private Tribal Trust or Indian	n Allotment
Temporary: Permanent Lined String-Rein Liner Seams:	Drilling Workover Emergency Cavitation Unlined Liner type: The forced Welded Factory C	P&A hickness mil LLDPE Other Volume:	HDPE PVC Other
3			
Type of Operat	op System: Subsection H of 19.15 ion: P&A Drilling a ne	9.17.11 NMAC wwwell Workover or Drilling (Applies to notice of intent)	activities which require prior approval of a permit or
Drying P	ad Above Ground Steel Tanks	s Haul-off Bins Other	
Lined	Unlined Liner type: Th	ickness milLLDPEF	IDPE PVD Other
Liner Seams:	Welded Factory Oth	her	
4	de tank: Subsection L of 19 15 17 1	I NMAC	
X Below-gra		of fluid: Produced Water	
X Below-gra	120 bbl Type		
X Below-gra Volume: Tank Construct	120bbl Type	Metal	
X Below-gri Volume: Tank Construct	<u>120</u> bbl Type ion material: ontainment with leak detection	Metal X Visible sidewalls, liner, 6-inch lift and auto	omatic overflow shut-off
X Below-gr: Volume: Tank Construct Secondary of Visible sid	120 bbl Type ion material: ontainment with leak detection lewalls and liner Visible	Metal Metal X Visible sidewalls, liner, 6-inch lift and auto sidewalls only	omatic overflow shut-off
X Below-gr: Volume: Tank Construct Secondary of Visible sid Liner Type:	120 bbl Type ion material:	Metal X Visible sidewalls, liner, 6-inch lift and auto sidewalls only Other HDPE PVC X Other	omatic overflow shut-off
X Below-gr: Volume: Tank Construct Secondary of Visible sid Liner Type:	120bbl Type ion material:	Metal X Visible sidewalls, liner, 6-inch lift and auto sidewalls only Other	omatic overflow shut-off
X Below-gr: Volume: Tank Construct Secondary of Visible sid Liner Type: Alternati	120bbl Type ion material:	Metal X Visible sidewalls, liner, 6-inch lift and auto sidewalls only Other	omatic overflow shut-off
X Below-gr: Volume: Tank Construct Secondary of Visible sid Liner Type: Alternati Submittal of an	120bbl Type ion material: ontainment with leak detection lewalls and liner Thickness we Method: exception request is required. Except C-144	Metal X Visible sidewalls, liner, 6-inch lift and autosidewalls only Other Other HDPE PVC X Other L Other Other Other Other Other Oth	nmental Bureau office for consideration of approval.

4									
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, hospite Four foot height, four strands of barbed wire evenly spaced between one and four feet	l, institution or church)								
X Alternate. Please specify 4' hog wire fencing topped with two strands barbed wire.									
7 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 nor 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 									
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: X Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration of approval. (Fencing/BGT Liner)									
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.									
10 <u>Siting Criteria (regarding permitting)</u> : 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.									
 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 XNo								
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes XNo								
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									
 (Applied to permanent pits) Visual inspection (certification) of the proposed site: Applied to be the line of initial application. 	Yes No 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									
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								
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (configuration) for the second second	Yes XNo								
 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.	Yes XNo								
Society; Topographic map Within a 100-year floodnlain									
- FEMA map	Yes XNo								

11	
Temporary Pits, Em	regency Pits and Below-grade Tanks Permit Application Attachment Checklist: Subsection Rev 10.15.17.0 MAAKA
V Hudronatoria	e following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
A riyungcologic	Report (Below-grade Tanks) - based upon the requirements of Paragraph-(4) of Subsection B of 19.15.17.9 NMAC
V Siting Critoria	Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19:15.17.9
N String Criteria	Compliance Demonstrations - based upon the appropriate requirements of 19/15/17/10 NMAC
Design Plan - b	ased 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 (P	lease complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Substation Conf
19.15.17.9 NM	AC and 19.15.17.13 NMAC
Previously Approve	ed Design (attach copy of design) API or Permit
12 Closed-loon Systems	Dermit Application And
Instructions: Each of the	following items must be attached to the application. Planning to 19,15,17,9 NMAC
Geologic and H	ydrogeologic Data (only for on-site closure) - based upon the requirements of Personal (0) - 50.
Siting Criteria C	Compliance Demonstrations (only for on-site closure) based upon the
Design Plan - ba	ised upon the appropriate requirements of 19.15.17.10 NMAC
Operating and M	faintenance Plan - based upon the appropriate
Closure Plan (Pl	ense complete Bares 1 () to a set appropriate requirements of 19.15.17.12 NMAC
NMAC and 19.1	5.17.13 NMAC
Previously Approved	1 Design (attach copy of design)
Previously Approved	1 Operating and Maintenance Di
	API
13 Permanent Dite Desert	
Instructions: Each of the	t Application Checklist: Subsection B of 19.15.17.9 NMAC
Hydroveologia B	following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached
Siting Critaria C	eport - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
Climatological E	ompliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Certified Envinee	iciors Assessment
Dike Protection a	nd Structural Integrity Devices his a
Leak Detection D	esign - based upon the appropriate requirements of 19.15.17.11 NMAC
Liner Specificatio	ns and Compatibility Assessment - bound on a state
Quality Control/Q	uality Assurance Construction and Installation Due
Operating and Ma	intenance Plan - based upon the appropriate requirements of 10,15,17,10,000,00
Freeboard and Ov	ertopping Prevention Plan - based upon the appropriate requirements of 10.15.17.12 NMAC
Nuisance or Hazar	dous Odors, including H2S, Prevention Plan
Emergency Respon	nse Plan
Oil Field Waste St	ream Characterization
Monitoring and Ins	spection Plan
Erosion Control Pla	an
Closure Plan - base	d upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
oposed Closure: 19.1: structions: Please complete	5.17.13 NMAC
De: Drilling Day	a the applicable boxes. Boxes 14 through 18, in regards to the proposed closure plan.
	orkover Emergency Cavitation P&A Permanent Pit X Below-grade Tank Closed-loop System
Dosed Closure Method	
posed crossine method.	A waste Excavation and Removal (Below-Grade Tank)
	Waste Removal (Closed-loop systems only)
	Off-site Closure Method (only for temporary pits and closed-loop systems)
	In-place Burial On-site Trench
	Allemative Closure Method (Excursion of the control
	and the submitted to the Santa Fe Environmental Bureau for consideration)
	and the Cossile Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
iste Excavation and Re	moval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be such as the state of the following i
iste Excavation and Re	emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan.
aste Excavation and Re ase indicate, by a check m X Protocols and Process X Confirmation Security	moval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. tures - based upon the appropriate requirements of 19.15.17.13 NMAC
aste Excavation and Re ase indicate. by a check m X Protocols and Procect X Confirmation Sample X Disposed Equition 1	emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. hark in the box, that the documents are attached. fures - based upon the appropriate requirements of 19.15.17.13 NMAC ing Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
aste Excavation and Re ase indicate, by a check m X Protocols and Proceed X Confirmation Sampli X Disposal Facility Nat X Soil Backfill and Co	emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. hark in the box, that the documents are attached. fures - based upon the appropriate requirements of 19.15.17.13 NMAC ing Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC me and Permit Number (for liquids, drilling fluids and drill cuttings)
Iste Excavation and Re ase indicate, by a check m Protocols and Proceed Confirmation Sample Disposal Facility Nat Soil Backfill and Cov	Emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Provide State Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Plan the box. that the documents are attached. Plan the appropriate requirements of 19.15.17.13 NMAC Instructions: For 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection F of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection H of 19.15.17.13 NMAC Plan the appropriate requirements of Subsection H of 19.15.17.13 NMAC
aste Excavation and Re ase indicate, by a check m X Protocols and Proced X Confirmation Sample X Disposal Facility Nat X Soil Backfill and Con K Re-vegetation Plan	emoval Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Hark in the box. that the documents are attached. Aures - based upon the appropriate requirements of 19.15.17.13 NMAC ing Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC me and Permit Number (for liquids. drilling fluids and drill cuttings) /er Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel	Conke on Haut Print on a		
meritarians: Please identify the facility or facilities for the disposal of liquids, drilling fa are required.	ads and drill cuttings. Use attachment if more than	AC) two facilities	
Disposal Facility Name:			
Disposal Facility Name:			
Will any of the proposed closed-loop system operations and associated activities of			
Brandom Line intervention No	accur on or in areas that will not be used for fut	ire service and operations?	
Soil Backful and Cover Design Spurification has been been been been been been been bee			
Re-vegetation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 N	MAC	
Site Reclamation Plan - based upon the appropriate requirements of Subsec	tion G of 19.15.17.13 NMAC		
17			
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC			
certain siting criteria may require administrative approval from the amount of the closure plan. Reco	mmendations of acceptable source material are provided	below Remests reporting America	
for consideration of approval. Justifications and/or demonstrations of equivalency are required. P	ay be considered an exception which must be submitted a lease refer to 19.15.17.10 NMAC for suidance) the Santa Fe Environmental Bureau office	
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		
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	
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	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant a	N/A		
Tupographic man: Visual income (accounse of lakebed, sinkhole, or playa lake	Yes No	
Within 300 feet from a patmanent suid			
 Visual inspection (certification) of the proposed site: Agrial above a site 	nce at the time of initial application.	TYes TNo	
i age			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five	households use for domestic or used	Yes No	
NM Office of the State Engineer - iWATERS database: Visual increasing a	t the time of the initial application.		
Within incorporated municipal boundaries or within a defined municipal fresh water well field	of the proposed site	_	
Written confirmation or verification from the municipality. We have	a covered under a municipal ordinance adopted	Yes No	
Within 500 feet of a wetland	om the municipality		
 US Fish and Wildlife Wetland Identification map: Topographic map; Visual inspection (Yes No		
Within the area overlying a subsurface mine.			
Within an unstable area	Yes No		
Engineering measures incorporated into the design: NM Bureau of Coolers & Million	TYes No		
Topographic map	esources: USGS; NM Geological Society;		
- FEMA map			
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructional Factorial			
by a check mark in the box, that the documents are attached.	ollowing items must bee attached to the closur	e plan. Please indicate,	
Siting Criteria Compliance Demonstrations - based upon the appropriate require	ments of 19.15 17 10 NM AC		
Proof of Surface Owner Notice - based upon the appropriate requirements of Su	bsection F of 19.15.17.13 NMAC		
Construction/Design Plan of Burial Trench (if applicable) based upon the approp	priate 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 19	15 17 11 NMAC	
Confirmation Sampling Disc (16 - 1) the	13 NMAC	I.I.I.I.I.IMAC	
Waste Material Sampling Plan, how t	nents of Subsection F of 19.15.17.13 NMAC		
Disposal Facility Name and Permit Number of Sub	section F of 19.15.17.13 NMAC		
Soil Cover Design - based upon the appropriate requirements of a	uttings or in case on-site closure standards cann	ot be achieved)	
Re-vegetation Plan - based upon the appropriate requirements of Subsection H of	19.15.17.13 NMAC		
Site Duplementer Dt	17.13.17.13 NMAC		

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1 1			
Operator Application	Certification:		
I hereby certify that the in	formation submitted with this application is true, acc	urate and considere to the	hest of my knowledge and ball of
Name (Print):	Crystal Tafoya	Title	Regulatory Tachridge
Signature:	Catol Ela	Data	
e-mail address:	install alour to more and	Date:	12/22/2008
	CTHOLIGIOAGACONOCUDININGSCOID	l'elephone:	505-326-9837
20			
OCD Approval:	Permit Application (including closure plan).	Closure Plan (only)	OCD Conditions (see attachment)
M'D Rangesantative S	Nanatura	(()))	
OCD Representative a			Approval Date:
Title:		OCD Perm	uit Number:
21			
Closure Report (requin Instructions: Operators an	red within 60 days of closure completion); Sub	section K of 19.15.17.13 NMAC	
report is required to be sul	bmitted to the division within 60 days of the completi	o implementing any closu on of the closure activities	re activities and submitting the closure report. The closure
approved closure plan has	been obtained and the closure activities have been c	completed.	a consecution to input the only section of the form unit (in
		Closure	Completion Date:
τ η			
Closure Method:			
Waste Excavation	and Removal On-site Closure Method	Alternative Classes	Method Ware De Color
If different from an	poroved plan, please explain	Anemative Closure	weinod waste Removal (Closed-loop systems only)
23 Closure Report Reporting	a Words Damousl Classes For Classic and	_	
Instructions: Please identi	y waste Removal Closure For Closed-loop System	s That Utilize Above Gro	und Steel Tanks or Haul-off Bins Only:
were utilized.	,,, jeine jeine jeine jeine interiore	ung junas ana arm cumn	gs were disposed. Use attachment if more than two facilities
Disposal Facility Name:		Disposal Facility I	Permit Nunber:
Disposal Facility Name:		Disposal Facility I	Permit Number:
Were the closed-loop sy	stem operations and associated activities performed of	on or in areas that will not	be used for future service and opeartions?
Yes (If yes, please of	demonstrate complilane to the items below)	No	
Required for impacted a	reas which will not be used for future service and op	erations;	
Site Reclamation (P	hoto Documentation)		
Soil Backfilling and	Cover Installation		
Re-vegetation Appli	ication Rates and Seeding Technique		
14			
Closure Report Attac	chment Checklist: Instructions: Each of the follo	wing items must be attack	hed to the closure report. Please indicate, by a check mark in
Proof of Closure N	enis are autorned.		
Proof of Deed Not	tice (required for on-site closure)		
Plot Plan (for on-si	ite closures and temporary pits)		
Confirmation Same	nling Analytical Decute (Come to the		
Waste Material C	pung Analytical Results (II applicable)		
Disposal English	mpung Analytical Results (if applicable)		
	are and Permit Number		
Soil Backfilling and	d Cover Installation		
Ke-vegetation App	lication Rates and Seeding Technique		
Site Reclamation (I	Photo Documentation)		
On-site Closure Lo	cation: Latitude:	Longitude:	NAD 1927 1983
_			
5			······································
perator Closure Certifi	ication:		
ereby certify that the informed of the second se	mation and attachments submitted with this closure r	eport is ture, accurate and	l complete to the best of my knowledge and belief. I also certify that
comme computes with dif	apparative closure requirements and conditions spec	ified in the approved closi	ure plan.
ame (Print):	· · · · · · · · · · · · · · · · · · ·	Title:	
mature			
		Date:	
mail address:		Telenhone	

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New Mexico Office of the State Engineer POD Reports and Downloads	
Township: 27N Range: 05W Sections:	
NAD27 X: Y: Zone: Search Radius:	
County: Basin: Number: Suffix:	
Owner Name: (First) (Last) CNon-Domestic CDomestic A	1
POD / Surface Data Report Avg Depth to Water Report Water Column Report	
Clear Form WATERS 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	
POD Number	Tws	Rng	Sec	q	q	g	Zone	х	Y	Well	Water	Column	
RG 81026	27N	05W	27	4	4	3				460	186	274	
SJ 00199	27N	05W	03	2	1					1840			
SJ 00046	27N	05W	04	4	4					506	260	246	

Record Count: 3





Mines, Mills and Quarries Web Map

SAN JUAN 27-5 UNIT 83

Unit Letter: B, Section: 09, Town: 027N, Range: 005W





SAN JUAN 27-5 UNIT 83

Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'SAN JUAN 27-5 UNIT 83', which is located at 36.59323 degree, North latitude and 107.35965 degree, West longitude. This location is located on the Vigas Canyon 7.5' USGS topographic quadrangle. This location is in section 9 of Township 27 North Range 5 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 Turley, located 25.8 miles to the northwest. The nearest large town (population greater than 10,000) is Farmington, located 48.0 miles to the west (National Atlas). The nearest highway is US Highway 64, located 6.8 miles to the north. The location is on BLM land and is 4,380 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Blanco Canyon. New Mexico, Sub-basin. This location is located at 30.5934 feet above sea level and receives 12.5 inches of rain each year. The vegetation at this location is classified as Inter-Mountain Basins Shale Badland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 551 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 953 feet to the west and is classified by the USGS as an intermittent stream. The nearest perennial stream is 1,985 feet to the northeast. The nearest water body is 1.920 feet to the northeast. It is classified by the USGS as an intermittent lake and is 0.4 acres in size. The nearest spring is 17,889 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 1,626 feet to the northeast. The nearest wetland is a 0.5 acre other located 1,926 feet to the northeast. The slope at this location is 7 degree, to the northeast 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 all ages substrate. The soil at this location is 'Rock outcrop-Vessilla-Menefee complex, 15 to 45 percent slopes' and is well drained and not hydric with not rated erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 16.6 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 aquifer 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
- 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 Averages **Typical Roll** Averages Averages Averages Averages Appearance Averages Black/Black Black/Black Black/Black Thickness **ASTM D 5199** 27 mił 30 mil 32 mil 36 mil 40 mil 45 mil Weight Lbs Per MSF 126 lbs 140 lbs ASTM D 5261 (oz/yd²) 151 lbs 168 lbs 189 lbs 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 1" Tensile Strength 88 lbf MD 110 lbf MD **ASTM D 7003** 90 lbf MD 113 lbf MD 110 lbf MD 63 lbf DD 138 lbf MD 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 Break % (Film Break) 550 MD 750 MD 550 MD 550 DD 750 MD 750 DD 550 DD 750 DD 550 DD 750 DD 1" Tensile Elongation @ 20 MD 33 MD Peak % (Scrim Break) ASTM D 7003 20 MD 30 MD 20 MD 36 MD 20 DD 33 DD 20 DD 31DD 20 DD 36 DD Tongue Tear Strength 75 lbf MD 97 lbf MD ASTM D 5884 75 lbf MD 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 Grab Tensile 180 lbf MD ASTM D 7004 218 lbf MD 180 lbf MD 222 lbf MD 220 lbf MD 180 lbf DD 257 lbf MD 210 lbf DD 180 lbf DD 223 lbf DD 220 lbf DD 258 lbf DD Trapezoid Tear 120 lbf MD 146 lbf MD ASTM D 4533 130 lbf MD 189 lbf MD 160 lbf MD 193 lbf MD 120 lbf DD 141 lbf DD 130 lbf DD 172 lbf DD 160 lbf DD 191 lbf DD * Dimensional Stability

<0.5

64 lbf

180° F

-70° F

MD = Machine Direction DD = Diagonal Directions

Puncture Resistance

Maximum Use Temperature

Minimum Use Temperature

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

<1

65 lbf

180° F

-70° F

< 0.5

83 lbf

180° F

-70° F

*Dimensional Stability Maximum Value

<1

50 lbf

180° F

-70° F

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

Note: IRAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, to guarantee of sutisfactory results from reliance upon contained information or recommendations and

PLANT LOCATION

Sioux Falls, South Dakota

SALES OFFICE

<1

80 lbf

180° F

-70° F

< 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, at its 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 replacement of Raven geomembrane to be free from all water, dirt, sludge, residuals and liquids of any kind. If after inspection it is 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 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.
- 2. 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 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, nonwaste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
- 8. 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
 - 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 belowgrade tank. Closure report will be filed on C-144 and incorporate the following:
 - Soil Backfilling and Cover Installation 0
 - Re-vegetation application rates and seeding techniques •
 - Photo documentation of the site reclamation
 - Confirmation Sampling Results
 - Proof of closure notice