District II 1301 W. Grand Ave., Artesia, NM 88210 District III	Energy Minerals and Departm Oil Conservation 1220 South St	W Mexico Natural Resources nent on Division Francis Dr	For temporary pits, closed-loop sytems tanks, submit to the appropriate NMOCI	Form C-14 July 21, 200 a, and below-grade D District Office.
1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NI	M 87505	For permanent pits and exceptions sub Environmental Bureau office and provide appropriate NMOCD District Office	mit to the Santa Fe a copy to the
	Pit. Closed-Loon System	n Below Grad	Tomla and	Plan i an ann an
T 1 Propo	sed Alternative Method P	ermit or Closu	re Plank, Or	
Turne of ortions	What is a start of the though	crime of Closur	te Flan Application	
Type of action:	X Permit of a pit, closed-loop sy	stem, below-grade t	ank, or proposed alternative method	bd
	Closure of a pit, closed-loop s	system, below-grade	tank, or proposed alternative meth	od
	Modification to an existing pe	ermit		
	Closure plan only submitted for	or an existing permi	tted or non-permitted pit, closed-lo	oop system,
Instructions. Please submit and	below-grade tank, or proposed	d alternative method		
Please be achieved that arrows	application (Form C-144) per indiv	vidual pit, closed-loo	op system, below-grade tank or alt	ternative request
environment. Nor does approval re	ieve the operator of its responsibility to complete	iability should operations re	esult in pollution of surface water, ground wat	er or the
1		any other applicable	governmental authority's rules, regulations or	ordinances.
Operator: Burlington Resources O	il & Gas Company, LP		OGRID#: 14538	Construction of the
Address: PO Box 4289, Farmingto	on, NM 87499			
Facility or well name: MANSFIEL	D 9A			19 40 A
API Number:	8004521728	OCD Parmit Mart		
U/L or Otr/Otr: I Section	n: 20 Townshin: 20N	OCD Permit Number	:	
Center of Proposed Design: Latitud	29 Township: 30N	Range:9	W County: San Juan	have the second
Surface Owner:	30./8015°N	Longitude:	-107.79775°W NAD: X	1927 1983
Federal	A State Private Tr	ribal Trust or Indian	Allotment	1. S.
Pit: Subsection F or G of 19.15.1' Temporary: Drilling Worl Permanent Emergency CC	7.11 NMAC			
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       World         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fater	7.11 NMAC         cover         avitation       P&A         ner type:       Thickness       mil         ctory       Other	ULLDPE H	DPE PVC Other	x D
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groun       Liner         Lined       Unlined       Liner         Lined       Welded       Fac	7.11 NMAC         scover         avitation P&A         her type: Thickness mil         ctory Other         on H of 19.15.17.11 NMAC         Drilling a new well Workover or notice of inte         d Steel Tanks Haul-off Bins [         type: Thickness mil         tory Other	Drilling (Applies to acont) Other LLDPE H	DPE PVC Other	x D f a permit or
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groun       Liner         Lined       Unlined       Liner         Drying Pad       Above Groun       Liner         Lined       Unlined       Liner         Volume:       120       bbl         Tank Construction material:       Secondary containment with leak deted         Visible sidewalls and liner       Liner Type:         Thickness	7.11 NMAC         sover         avitation P&A         her type: Thicknessmil         ctory Other         on H of 19.15.17.11 NMAC         pon H of 19.15.17.11 NMAC         Drilling a new well Workover or notice of inte         d Steel Tanks Haul-off Bins [         type: Thicknessmil         tory Other         of 19.15.17.11 NMAC         Type of fluid: Produced Wa         Metal         ction X Visible sidewalls, liner,         Visible sidewalls only Othe         mil HDPE PVC	LLDPE H Volume: Drilling (Applies to ac nt) Other LLDPE HDD Ater 6-inch lift and automa er X Other	DPE PVC Other bbl Dimensions Lx W etivities which require prior approval o PE PVD Other etic overflow shut-off pecified	x D
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groum       Liner         Lined       Unlined       Liner         Secondary:       Welded       Fac         X       Below-grade tank:       Subsection I of         Volume:       120       bbl         Tank Construction material:       Secondary containment with leak dete         Visible sidewalls and liner       Liner Type:         Liner Type:       Thickness	A.11 NMAC         sover         avitation       P&A         her type:       Thickness       mil         ctory       Other	LLDPE H Volume:	DPE PVC Other	_ x D
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groun       Liner         Lined       Unlined       Liner         Lined       Unlined       Liner         Liner Seams:       Welded       Fac         Value:       120       bbl         Tank Construction material:       Secondary containment with leak deteed         Visible sidewalls and liner       Liner Type:         Liner Type:       Thickness	All NMAC sover avitation P&A her type: Thicknessmil ctory Other on H of 19.15.17.11 NMAC Drilling a new well Workover or notice of inter d Steel Tanks Haul-off Bins [ type: Thicknessmil tory Other of 19.15.17.11 NMAC Type of fluid: Produced War Metal extion X Visible sidewalls, liner, Visible sidewalls only Othe Other	LLDPE H Volume: Drilling (Applies to ac nt) Other Dther Other Other Ater Ater X Other	DPE PVC Other	_ x D
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groun         Liner Seams:       Welded       Fac         Drying Pad       Above Groun         Liner Seams:       Welded       Fac         Value:       Unlined       Liner         X       Below-grade tank:       Subsection I of         Volume:       120       bbl         Tank Construction material:       Secondary containment with leak dete         Visible sidewalls and liner       Liner Type:       Thickness         Alternative Method:       Submittal of an exception request is required	7.11 NMAC         sover         avitation P&A         her type: Thicknessmil         ctory Other         on H of 19.15.17.11 NMAC         Drilling a new well Workover or notice of inte         d Steel Tanks Haul-off Bins [         type: Thicknessmil         tory Other         of 19.15.17.11 NMAC         Type of fluid: Produced Wa         Metal         ction X Visible sidewalls, liner,         Visible sidewalls only Othe            mil HDPE PVC	LLDPE H Volume: Drilling (Applies to ac nt) Other LLDPE HDI ater 6-inch lift and automa er X Other Unsp	DPE PVC Other bbl Dimensions Lx W etivities which require prior approval o PE PVD Other etic overflow shut-off pecified	x D
Pit:       Subsection F or G of 19.15.17         Temporary:       Drilling       Worl         Permanent       Emergency       CC         Lined       Unlined       Line         String-Reinforced       Liner Seams:       Welded       Fa         Closed-loop System:       Subsection         Type of Operation:       P&A       P         Drying Pad       Above Groum       Liner         Lined       Unlined       Liner         Lined       Unlined       Liner         Lined       Unlined       Liner         Liner Seams:       Welded       Fac         X       Below-grade tank:       Subsection I of Volume:         Yolume:       120       bbl         Tank Construction material:       Secondary containment with leak deter         Visible sidewalls and liner       Liner Type:         Liner Type:       Thickness         Submittal of an exception request is requited and the exception request is required and the exception request is required and the exception request is requited and the exception request is requited and the exception reque	A.11 NMAC         sover         avitation    P&A         her type: Thicknessmil         ctory    Other	LLDPE H Volume:	DPE PVC Other	x D f a permit or f approval.

S  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 barbad wire at text (Penning 1/61) and height (2000).		
Chain link, six leet in height, two strands of barbed wife at top ( <i>Required if located within 1000 feet of a permanent residence, school, hospital, ins</i>	stitution or ch	urch)
X Alternate Please specify 4' has wire foncing topped with two strends hands during		
A memaie. Trease specify 4 nog wire reneing topped with two strands barbed wire.	angana antar 1955 mangana mangana ang mangan 1966 mangana ang mangana ang mangana	and the second second
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)	n feining an Angelen an An Feining an Angelen a Angelen an Angelen an Ang	en e
3		1 B. 32
Signs: Subsection C of 19.15.17.11 NMAC		
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers		
X Signed in compliance with 19.15.3.103 NMAC		
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 cons (Fencing/BGT Liner)	sideration of a	approval.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		ns <sup>a</sup> ltra
0		
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		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	TYes	
(Applied to permanent pits)	X NA	<u> </u>
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image		
Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.	Yes	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 Written confirmation or varification from the available Written confirmation of varification for the section of the se	Yes	XNo
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (certification) of the proposed site</li> </ul>	Yes	XNo
<ul> <li>Within the area overlying a subsurface mine.</li> <li>Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division</li> </ul>	Yes	XNo
Within an unstable area.	Yes	X No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map		
Within a 100-year floodplain - FEMA map	Yes	XNo

Temporary Pits, Emergency Pits and F Instructions: Each of the following items mus	elow-grade Tanks	Dormit Application	n Attachment Checklist: Subsection B of 1915179 NMAC
X Hydrogeologic Report (Below-grad	t be attached to the ap	pplication. Please ind.	icate, by a check mark in the box, that the documents are attached.
	le Tanks) - based up	on the requirements	of Paragraph (4) of Subsection B of 19,15,17,9 NMAC
Hydrogeologic Data (Temporary an	nd Emergency Pits)	- based upon the req	uirements of Paragraph (2) of Subsection B of 19.15.17.9
X Siting Criteria Compliance Demon	strations - based upo	on the appropriate re	quirements of 19.15.17.10 NMAC
X Design Plan - based upon the appro	priate requirements	of 19.15.17.11 NM	AC
X Operating and Maintenance Plan -	based upon the appr	opriate requirements	s of 19.15.17.12 NMAC
X Closure Plan (Please complete Box 19.15.17.9 NMAC and 19.15.17.1.	es 14 through 18, if 3 NMAC	applicable) - based	upon the appropriate requirements of Subsection C of
Previously Approved Design (attach co	nov of design)	ΔΡΙ	or Donnit
	py or design)		
12         Closed-loop Systems Permit Application         Instructions: Each of the following items must         Geologic and Hydrogeologic Data (         Siting Criteria Compliance Demon	n Attachment Chee be attached to the ap only for on-site clos strations (only for or	cklist: Subsection B plication. Please india ure) - based upon th u-site closure) - base	of 19.15.17.9 NMAC cate, by a check mark in the box, that the documents are attached. he requirements of Paragraph (3) of Subsection B of 19.15.17.9 d upon the appropriate requirements of 19.15.17.10 NMAC
Design Plan - based upon the appro	priate requirements	of 19.15.17.11 NM	AC
Operating and Maintenance Plan -	based upon the appro-	opriate requirements	s of 19.15.17.12 NMAC
Closure Plan (Please complete Box NMAC and 19.15.17.13 NMAC	es 14 through 18, if	applicable) - based u	upon the appropriate requirements of Subsection C of 19.15.17.9
Previously Approved Design (attach co	ny of design)	API	
Previously Approved Operating and M	aintenance Plan	API	
Permanent Pits Permit Application Che Instructions: Each of the following items mu. Hydrogeologic Report - based upon Siting Criteria Compliance Demons Climatological Factors Assessment Certified Engineering Design Plans Dike Protection and Structural Integ Leak Detection Design - based upor Liner Specifications and Compatibil Quality Control/Quality Assurance ( Operating and Maintenance Plan - b	<ul> <li>scklist: Subsection</li> <li>st be attached to the a</li> <li>the requirements of</li> <li>trations - based upon</li> <li>based upon the apprint</li> <li>prity Design: based up</li> <li>the appropriate require</li> <li>the appropriate require</li> <li>Construction and Ins</li> <li>ased upon the appropriate</li> </ul>	B of 19.15.17.9 NM <i>application. Please ind</i> Paragraph (1) of Su in the appropriate requirement propriate requirement uirements of 19.15.1 sed upon the appropriate tallation Plan priate requirements	MAC dicate, by a check mark in the box, that the documents are attached. bsection B of 19.15.17.9 NMAC quirements of 19.15.17.10 NMAC nts of 19.15.17.11 NMAC requirements of 19.15.17.11 NMAC 17.11 NMAC riate requirements of 19.15.17.11 NMAC of 19.15.17.12 NMAC
Freeboard and Overtopping Prevent     Nuisance or Hazardous Odors, inclu     Emergency Response Plan     Oil Field Waste Stream Characteriza     Monitoring and Inspection Plan     Erosion Control Plan     Closure Plan - based upon the approx 4	ion Plan - based upo ding H2S, Prevention ntion priate requirements	n the appropriate red on Plan of Subsection C of 1	quirements of 19.15.17.11 NMAC 19.15.17.9 NMAC and 19.15.17.13 NMAC
Freeboard and Overtopping Prevent     Nuisance or Hazardous Odors, inclu     Emergency Response Plan     Oil Field Waste Stream Characterize     Monitoring and Inspection Plan     Erosion Control Plan     Closure Plan - based upon the appro	ion Plan - based upo ding H2S, Preventio ntion priate requirements	n the appropriate red on Plan of Subsection C of 1	quirements of 19.15.17.11 NMAC 19.15.17.9 NMAC and 19.15.17.13 NMAC
Freeboard and Overtopping Prevent     Nuisance or Hazardous Odors, inclu     Emergency Response Plan     Oil Field Waste Stream Characteriza     Monitoring and Inspection Plan     Erosion Control Plan     Closure Plan - based upon the approx     Closure Plan - based upon the approx     Proposed Closure: 19.15.17.13 NMAC     nstructions: Please complete the applicable b     ype: Drilling Workover Eme	ion Plan - based upo ding H2S, Prevention ntion priate requirements oxes, Boxes 14 throug rgency Cavitatio	n the appropriate red on Plan of Subsection C of 1 gh 18, in regards to th on P&A P	quirements of 19.15.17.11 NMAC         19.15.17.9 NMAC and 19.15.17.13 NMAC         the proposed closure plan.         Permanent Pit X Below-grade Tank Closed-loop System
	tion Plan - based upo ding H2S, Prevention priate requirements oxes, Boxes 14 throug rgency Cavitation vation and Removal oval (Closed-loop systemes sure Method (only for	n the appropriate rea on Plan of Subsection C of 1 gh 18, in regards to th on P&A P (Below-Gra stems only) r temporary pits and	quirements of 19.15.17.11 NMAC         19.15.17.9 NMAC and 19.15.17.13 NMAC         the proposed closure plan.         the proposed closure plan.         the manent Pit X Below-grade Tank Closed-loop System         de Tank)         closed-loop systems)
Freeboard and Overtopping Prevent     Nuisance or Hazardous Odors, inclu     Emergency Response Plan     Oil Field Waste Stream Characterize     Monitoring and Inspection Plan     Erosion Control Plan     Closure Plan - based upon the appro     A     Troposed Closure: 19.15.17.13 NMAC     nstructions: Please complete the applicable b     ype: Drilling Workover Eme     Alternative     roposed Closure Method: X Waste Exca     Waste Rem     On-site Closure	ion Plan - based upo ding H2S, Prevention ntion priate requirements oxes, Boxes 14 throug rgency Cavitation vation and Removal oval (Closed-loop sys- sure Method (only fo In-place Burial	n the appropriate red on Plan of Subsection C of 1 gh 18, in regards to th on P&A P (Below-Gra stems only) r temporary pits and On-site Trench	quirements of 19.15.17.11 NMAC         19.15.17.9 NMAC and 19.15.17.13 NMAC         the proposed closure plan.         Permanent Pit X Below-grade Tank Closed-loop System         de Tank)         closed-loop systems)
	ion Plan - based upo ding H2S, Prevention priate requirements oxes, Boxes 14 throug rgency Cavitation vation and Removal oval (Closed-loop sys- sure Method (only fo ]In-place Burial [ Closure Method (Exc	n the appropriate rea on Plan of Subsection C of 1 gh 18, in regards to the on P&A P (Below-Gra stems only) r temporary pits and On-site Trench ceptions must be subj	quirements of 19.15.17.11 NMAC         19.15.17.9 NMAC and 19.15.17.13 NMAC         the proposed closure plan.         Permanent Pit X Below-grade Tank Closed-loop System         de Tank)         closed-loop systems)         mitted to the Santa Fe Environmental Bureau for consideration)

16 Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Ta Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluid are required. Disposal Facility Name:	nks or Haul-off Bins Only: (19.15.17.13.D NMAC) Is and drill cuttings. Use attachment if more than two fa	ncilities
Disposal Facility Name		Real Providence and Anna and A
Disposal Facility Name: Dis	sposal Facility Permit #:	Contraction of the second s
Will any of the proposed closed-loop system operations and associated activities oc Yes (If yes, please provide the information No Required for impacted areas which will not be used for future service and operations:	cur on or in areas that will not be used for future se	rvice and operations?
<ul> <li>Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection</li> <li>Re-vegetation Plan - based upon the appropriate requirements of Subsection</li> <li>Site Reclamation Plan - based upon the appropriate requirements of Subsect</li> </ul>	equirements of Subsection H of 19.15.17.13 NMAC 1 of 19.15.17.13 NMAC ion G of 19.15.17.13 NMAC	
17 Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recon certain siting criteria may require administrative approval from the appropriate district office or may for consideration of approval. Justifications and/or demonstrations of equivalency are required. Pla	umendations of acceptable source material are provided belov y be considered an exception which must be submitted to the S ease refer to 19.15.17.10 NMAC for guidance.	v. Requests regarding changes to 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		Yes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained	from nearby wells	N/A
Ground water is more than 100 feet below the bottom of the buried waste.	김 김 씨는 영상은 영화가 감독했다.	TYes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained	from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant w (measured from the ordinary high-water mark).	vatercourse or lakebed, sinkhole, or playa lake	Yes No
- Topographic map; Visual inspection (certification) of the proposed site	이 생각은 소리에서 가격 것은 것이다.	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existe - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	nce at the time of initial application.	Yes No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence a - NM Office of the State Engineer - iWATERS database; Visual inspection (certification Within incorporated municipal boundaries or within a defined municipal fresh water well fie	<ul> <li>households use for domestic or stock watering at the time of the initial application.</li> <li>) of the proposed site</li> <li>Id covered under a municipal ordinance adopted</li> </ul>	Yes No
<ul> <li>pursuant to NMSA 1978, Section 3-27-3, as amended.</li> <li>Written confirmation or verification from the municipality; Written approval obtained</li> </ul>	from the municipality	
Within 500 feet of a wetland		Yes No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection	(certification) of the proposed site	
Within the area overlying a subsurface mine.	1 Division	Yes No
Within an unstable area	1 Division	
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Topographic map</li> </ul>	Resources; USGS; NM Geological Society;	
Within a 100-year floodplain. - FEMA map		Yes No
18         On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.         Image: Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of the Proof of Surface Owner Notice - based upon the appropriate requirements of the Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) based upon the appropriate construction plan of Burial Trench (if applicable) bapprop	following items must bee attached to the closure prime of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC ropriate requirements of 19.15.17.11 NMAC	plan. Please indicate,
Construction/Design Plan of Temporary Pit (for in place burial of a drying page	d) - based upon the appropriate requirements of 19.1	15.17.11 NMAC
Protocols and Procedures - based upon the appropriate requirements of 19.15.	17.13 NMAC	
Confirmation Sampling Plan (if applicable) - based upon the appropriate requi	irements of Subsection F of 19.15.17.13 NMAC	
Waste Material Sampling Plan - based upon the appropriate requirements of S	ubsection F of 19.15.17.13 NMAC	
Disposal Facility Name and Permit Number (for liquids, drilling fluids and dri	Il cuttings or in case on-site closure standards canno	ot be achieved)

Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
 Re-vegetation Plan - based upon the appropriate requirements of Subsection 1 of 19.15.17.13 NMAC

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

· ·		
19		
Operator Application C	ertification:	
I hereby certify that the info	rmation submitted with this application is true, a	accurate and complete to the best of my knowledge and belief.
Name (Print):	Crystal Tafoya	Title: Regulatory Technician
Signature:	Comptal lalon	Date: 12/22/2008
e-mail address:	crystal.tatoya@conocophillips.com	Telephone: 505-326-9837
20	destination of the second second	Construction and the second s second second se second second s
OCD Approval: Pe	rmit Application (including closure plan)	Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Sig	mature.	
ood Representative Sig		Approval Date:
Title:		OCD Permit Number:
21 <u>Closure Report (require</u> Instructions: Operators are a	d within 60 days of closure completion): s required to obtain an approved closure plan pric	Subsection K of 19.15.17.13 NMAC or to implementing any closure activities and submitting the closure report. The closure
report is required to be subn approved closure plan has b	nitted to the division within 60 days of the completent obtained and the closure activities have been	letion of the closure activities. Please do not complete this section of the form until an
	and a statistic sections have been	Closure Completion Date:
22 Closure Method:		
Waste Excavation an	nd Removal On-site Closure Method	Alternative Closure Method
If different from app	roved plan, please explain.	waste Removal (Closed-loop systems only)
<u>Closure Report Regarding</u> Instructions: Please identify were utilized.	Waste Removal Closure For Closed-loop Syste the facility or facilities for where the liquids, d	<u>tems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:</u> drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
Disposal Facility Name:		Disposal Facility Permit Number:
Disposal Facility Name:		Disposal Facility Permit Number:
Were the closed-loop syst	em operations and associated activities performe	ed on or in areas that will not be used for future service and opeartions?
Yes (If yes, please de	monstrate compliane to the items below)	No
Required for impacted are	eas which will not be used for future service and	l operations:
Soil Backfilling and (	Cover Installation	
Re-vegetation Applic	ation Rates and Seeding Technique	
24		
Closure Report Attack	ament Checklist: Instructions: Each of the fo	ollowing items must be attached to the closure report. Please indicate, by a check mark in
the box, that the documen	its are attached.	
Proof of Closure No	vtice (surface owner and division)	
Dist Dist (fee an ait	e (required for on-site closure)	
	e closures and temporary pits)	
	ling Analytical Results (if applicable)	
	ipling Analytical Results (if applicable)	
Soil Backfilling and	Ime and Permit Number	
Soil Backfilling and     Re-vegetation Appli	Cover Installation	
Site Reclamation (P	thata Documentation)	
On-site Closure Loc	ation: Latitude:	
		IVAD
25 Operator Closure Certific	cation:	
I hereby certify that the inform the closure complies with all	nation and attachments submitted with this closu	are report is ture, accurate and complete to the best of my knowledge and belief. I also certify that
cusare compues win all t	opportable crossive requirements and containons s	specifica in the approved closure plan.
Name (Print):		Title:
Signature:		Date:
e-mail address		Telephone

Oil Conservation Division

# New Mexico Office of the State Engin

er

Township: 30N Ran	ge: 09W Sections:	
NAD27 X: Y	Zone:	Search Radius:
County: Basin:		Number: Suffix:
Owner Name: (First)	(Last)	○ Non-Domestic ○ Domestic @ All
POD / Surface Data Report	Avg Depth to Water Re	eport Water Column Report

WATER COLUMN REPORT 08/21/2008

	(quarter (quarter	ers are 1=NW 2=NE 3=SW 4=SE) ers are biggest to smallest)						) )		Depth	Depth	Water	(in feet)
POD Number	Tws	Rng	Sec	P	g	P	Zone	х	Y	Well	Water	Column	(111 1000)
SJ 00009	30N	09W	06	3						396	60	336	
SJ 00140	30N	09W	25	1						10	00	220	
SJ 02744	30N	09W	25	2	4	4				21	10	11	
SJ 02092	30N	09W	33	4	4	4				32	15	17	
SJ 02170	30N	09W	35	1	4	3				20	10	10	
SJ 03565	30N	09W	35	2	4	3				20	10	10	
SJ 00091	30N	09W	35	3	2	2				34			
SJ 01330	30N	09W	36	1	1	2				· 20	5	15	
SJ 02298	30N	09W	36	3						15	4	11	

Record Count: 9

Page 1 of 1



# AERIAL MAP MANSFIELD 9A



# Mines, Mills and Quarries Web Map

MANSFIELD 9A Unit Letter: I, Section: 29, Town: 030N, Range: 009W





Mansfield #9A



#### **MANSFIELD 9A**

#### Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'MANSFIELD 9A', which is located at 36.78015 degrees North latitude and 107.79775 degrees West longitude. This location is located on the Turley 7.5' USGS topographic quadrangle. This location is in section 29 of Township 30 North Range 9 West of the Public Land Survey System (New Mexico Principal Meridian). This location is located in San Juan County, New Mexico. The nearest town is Turley, located 2.3 miles to the southeast. The nearest large town (population greater than 10,000) is Farmington, located 22.8 miles to the west (National Atlas). The nearest highway is State Highway 173, located 1.4 miles to the north. The location is on BLM land and is 3,804 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, Sub-basin. This location is located 1781 meters or 5841 feet above sea level and receives 12 inches of rain each year. The vegetation at this location is classified as Colorado Plateau Pinon-Juniper Woodland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 223 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 336 feet to the west and is classified by the USGS as an intermittent stream. The nearest perennial stream is 5,041 feet to the northwest. The nearest water body is 5,041 feet to the northwest. It is classified by the USGS as an intermittent lake and is 0.4 acres in size. The nearest spring is 10,810 feet to the southwest. 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 6,694 feet to the southwest. The nearest wetland is a 63.1 acre Ravine located 6,554 feet to the east. The slope at this location is 9 degrees to the south 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 NACIMIENTO FORMATION--Shale and sandstone with a Shale dominated formations of all ages substrate. The soil at this location is 'Stumble-Fruitland association, gently sloping' and is somewhat excessively drained and not hydric with slight erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 13.7 miles to the north as indicated on the Mines, Mills and Quarries Map of New Mexico provided.

#### **Regional Geological context:**

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

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

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones.

Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

#### Hydraulic Properties:

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

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

#### **References:**

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, eastcentral San Juan Basin, New Mexico: USGS Professional Paper 552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.

Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

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

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

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





# 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 belowgrade 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.



San Juan Business Unit

DPEN TOP GRAVITY FLOW TANK INTERNALLY COATED WITH 12-14 MILS AMERON AMERCOAT 385

# DURA-SKRIM®

PROPERTIES	TEST METHOD		130BB		36BB	J45BB		
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages	Min. Roll	Typical Roll	
Appearance		Bla	ck/Black	Bla	k/Black	Averages	Averages	
Thickness	ASTM D 5199	27 mil	20	Dia		Blac	k/Black	
Weight Lbs Per MSE		27 1111	30 mil	32 mil	36 mil	40 mil	45 mil	
(oz/yd²)	ASTM D 5261	126 lbs (18.14)	140 lbs (20.16)	151 lbs (21.74)	168 lbs (24 19)	189 lbs	210 lbs	
Construction		**Ext	trusion laminate	d with encancul		(21.21)	(30.24)	
Ply Adhesion	ASTM D 413	16 lbs	20.11-	d with encapsu	aled tri-direction	nal scrim reinfo	rcement	
		10 103	20 105	19 lbs	24 lbs	25 lbs	31 lbs	
1" Tensile Strength	ASTM D 7003	88 lbf MD 63 lbf DD	110 lbf MD 79 lbf DD	90 lbf MD 70 lbf DD	113 lbf MD 87 lbf DD	110 lbf MD	138 lbf MD	
1" Tensile Elongation @ Break. % (Film Break)	ASTM D 7003	550 MD 550 DD	750 MD 750 DD	550 MD	750 MD	550 MD	750 MD	
1" Tensile Elongation @		20 MD	22.145	000 00	750 00	550 DD	750 DD	
Peak % (Scrim Break)	ASTM D 7003	20 DD	33 MD 33 DD	20 MD 20 DD	30 MD 31DD	20 MD 20 DD	36 MD 36 DD	
Tongue Tear Strength	ASTM D 5884	75 lbf MD 75 lbf DD	97 lbf MD 90 lbf DD	75 lbf MD 75 lbf DD	104 lbf MD 92 lbf DD	100 lbf MD 100 lbf DD	117 lbf MD 118 lbf DD	
Grab Tensile	ASTM D 7004	180 lbf MD 180 lbf DD	218 lbf MD 210 lbf DD	180 lbf MD 180 lbf DD	222 lbf MD 223 lbf DD	220 lbf MD 220 lbf DD	257 lbf MD 258 lbf DD	
Trapezoid Tear	ASTM D 4533	120 lbf MD 120 lbf DD	146 lbf MD 141 lbf DD	130 lbf MD	189 lbf MD	160 lbf MD	193 lbf MD	
* Dimensional Stability	ASTM D 1204				1/2 lbf DD	160 lbf DD	191 lbf DD	
Puncture Resistance	AOTH D 1204	<1	<0.5	<1	<0.5	<1	<0.5	
	ASTM D 4833	50 lbf	64 lbf	65 lbf	83 lbf	80 lbf	99 lbf	
viaximum Use Temperature		180° F	180° F	180° F	180° E	100% 5		
Minimum Use Temperature		-70° F	-70° E	700 5		180° F	180° F	
D = Machine Dire -			-70 F	-/0°F	-70° F	-70° F	-70° F	

DD = Diagonal Directions

OURA-STORM'S

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

\*Dimensional Stability Maximum Value

\*\*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 guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.



# PLANT LOCATION

Sioux Falls, South Dakota

### SALES OFFICE

J30, J36 & J45

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 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 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 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.





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 concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method that the division approves, does not exceed 50 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.
- 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 the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 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