Department

1301 W. Grand Ave., Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fc. NM 87505

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office.

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

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

1 1000	Troposed Alichians Ameniod I Simil of Closure I fail Application
Type of action:	Type of action: X Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
	Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
	Modification to an existing permit
	Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
ructions: Please submit one	ructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-prade tank or atternative reau

Insi Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the est

Surface Owner: Center of Proposed Design: Latitude: U/L or Qtr/Qtr: Facility or well name: SAN JUAN 28-5 UNIT 49 API Number: X Below-grade tank: Subsection I of 19.15.17.11 NMAC Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval Tank Construction material: Type of Operation: Temporary: Liner Type: Liner Seams: Liner Seams: Permanent String-Reinforced Secondary containment with leak detection Lined Pit: Subsection F or G of 19.15.17.11 NMAC Lined | Alternative Method: Visible sidewalls and liner Drying Pad Closed-loop System: S
of Operation: P&A PO Box 4289, Farmington, NM 87499 Burlington Resources Oil & Gas Company, LP environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances Thickness Welded Welded Emergency Cavitation Drilling | Workover Unlined Unlined Above Ground Steel Tanks Haul-off Bins × I Federal Subsection H of 19.15.17.11 NMAC Section: Liner type: Factory Factory Liner type: Drilling a new well 3003907386 ∄. Visible sidewalls only Other 23 Other State Type of fluid: Thickness _P&A Thickness X Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off 36.64957°N Township: HDPE Private Workover or Drilling (Applies to activities which require prior approval of a permit or Produced Water notice of intent) PVC 28N ∄. Tribal Trust or Indian Allotment Other mil Other OCD Permit Number: Volume: LLDPE HDPE PVC Other Longitude: Ш∟∟оре Шноре Range: X Other Unspecified SW OGRID#: [99 -107.32222°W PVD Other Dimensions L County: 14538 Rio Arriba NAD: × W X 1927 1983 ×D

Form C-144

Oil Conservation Division

Page 1 of 5

				9	1	1	
NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site. Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended Written confirmation or verification from the municipality: Written approval obtained from the municipality Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division Within an unstable area. 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	(Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applied to permanent pits) - 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.	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 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 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.	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. [Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	8 Signs: Subsection C of 19.15.17.11 NMAC 12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers X Signed in compliance with 19.15.3, 103 NMAC	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)	Eventing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church) [Isour fivor height, four strands of barbed wire evenly spaced between one and four feet [X] Alternate. Please specify 4' hog wire fencing topped with two strands barbed wire.
	X NA NA NA NA	Yes Yes		deration of			didion or e
NO N	No No	X X X		approval			iurch)

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must bee attached to the closure plan. Please ind by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.13 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cutings or in case on-site closure standards cannot be achieved) Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Soil Cover Design - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Soil Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC	Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the time of the initial application. - NM Office of the State Engineer - IWATERS database; Visual inspection (certification) of the proposed site. Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978. Section 3-27-3, as amended. - Written confirmation or verification from the municipality, Written approval obtained from the municipality within 500 feet of a wetland - US 17sh and Wildlife Wetland Identification map: Topographic map; Visual inspection (certification) of the proposed site within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Within an unstable area. - Engineering measures incorporated into the design; NM Burran of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Within a 100-year floodplain.	Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Institutions: Earth stiding criteria requires a demonstration of symptome in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to for consideration of appreval. Journal to appropriate district office or may be considered an exception which must be submitted to the Santa Fe Engineer of appreval. Journal of 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 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 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 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake No - Topographic map: Visual inspection (centification) of the proposed site Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (centification) of the proposed site; Aerial photo; satellite image	Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Skeel Tanks or Haul-off Blus Only: (19.15.17.13.D NMAC) Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cattings. Use attachment if more than two facilities Disposal Facility Name: Disposal Facility Name: Disposal Facility Permit #: Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations: Yes (If yes, please provide the information No Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC
an. Please indicate,	Tyes No	tta Fr Environmental Burran office N/A Yes No N/A Yes No N/A Yes No NO N/A Yes No	ilities

e-mail address:	the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print): Title: Date:	Derator Closure Certification:	On-site Closure Location: Latitude: Longitude: NAD 1927 1983	Waste Material Sampling Analytical Results (if applicable) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable)	Required for impacted areas which will not be used for future service and operations: Site Rectamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	Disposal Facility Name: Disposal Facility Name: Disposal Facility Name: Disposal Facility Name: Disposal Facility Permit Number: Disposal	Waste Removal Closure For Closed-loop Systems That I	22 Clusture Method: Waste Excavation and Removal On-site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.	21 Clessure Report (required within 60 days of closure completion): Subsection of the 15.17 13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date:	Title: OCD Permit Number:	OCD Representative Signature: Approval Date:	20 OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)	e mail address: erystal hatoya श्रे gongcophilips com Telephome: 505-326-9837	Captal Dajung Date:	Operator, Application Certification: Operator, Application Certification: Descript can be information submitted with this application is true, accurate and complete to the best of my knowledge and belief, Name (Print): Crystal Edoya Title: Regulatory Technician
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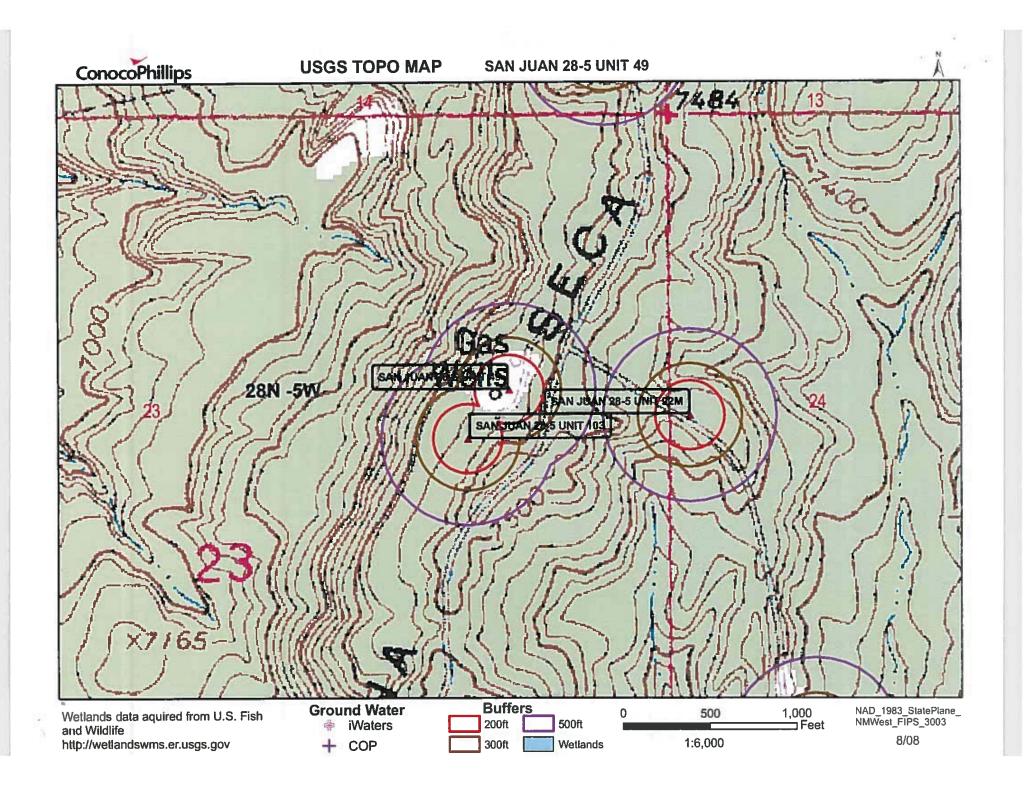
New Mexico Office of the State Engineer POD Reports and Downloads

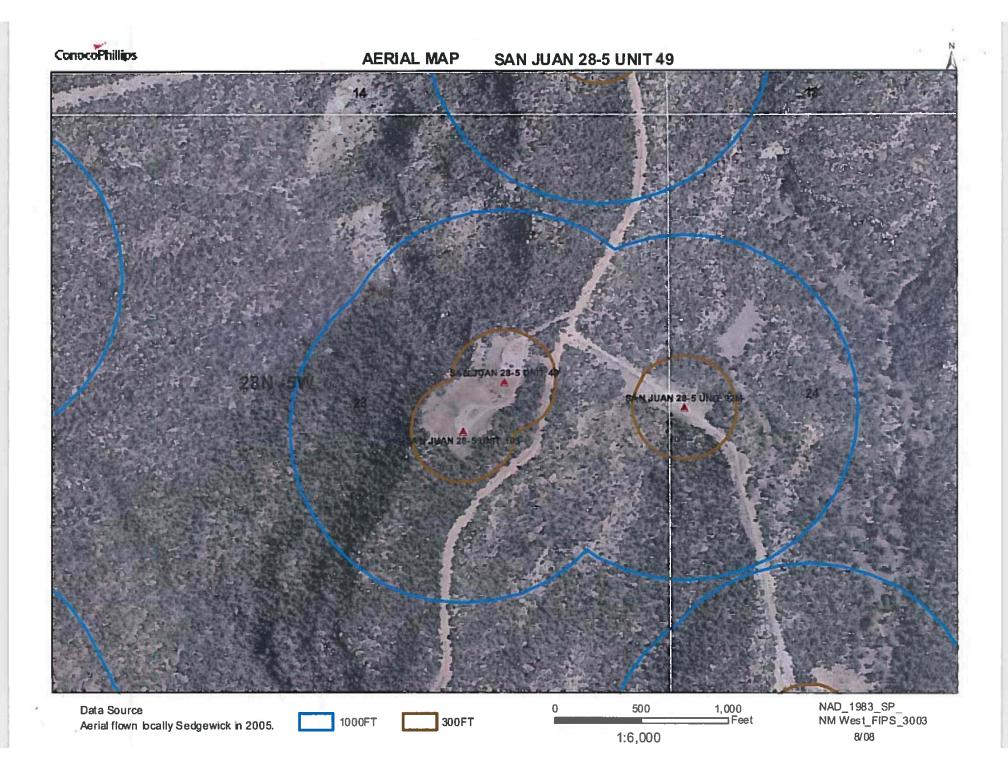
Clear Form	POD / Surface Data Report	Owner Name: (First)	County: Basin:	NAD27 X: Y:	Township: 28N Range: 05W
orm iWATERS Menu Help	Avg Depth to Water Report Water Column Report	(Last) C Non-Domestic C Domestic All	Number: Suffix:	Zone: Search Radius:	05W Sections:

WATER COLUMN REPORT 08/20/2008

	(quarte	(quarters are 1=NW 2=NE 3=SW 4=SE)		Depth	Depth	Water (in	Þ
POD Number	Tws	Rng Sec q q q Zone X	ĸ	Well	Water	Column	
SJ 01893	28N	05W 18 4		390	290	100	
SJ 00047	28N	05W 28		465	265	200	
SJ 00036	28N	05W 28 3		303	243	60	
	ř.						

Record Count: 3

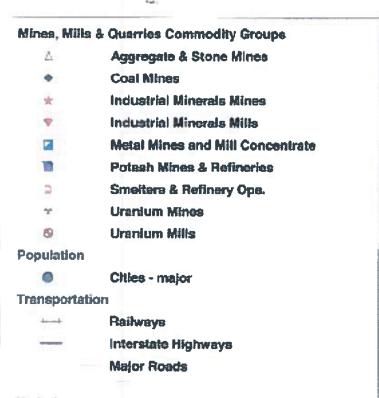




Mines, Mills and Quarries Web Map

SAN JUAN 28-5 UNIT 49

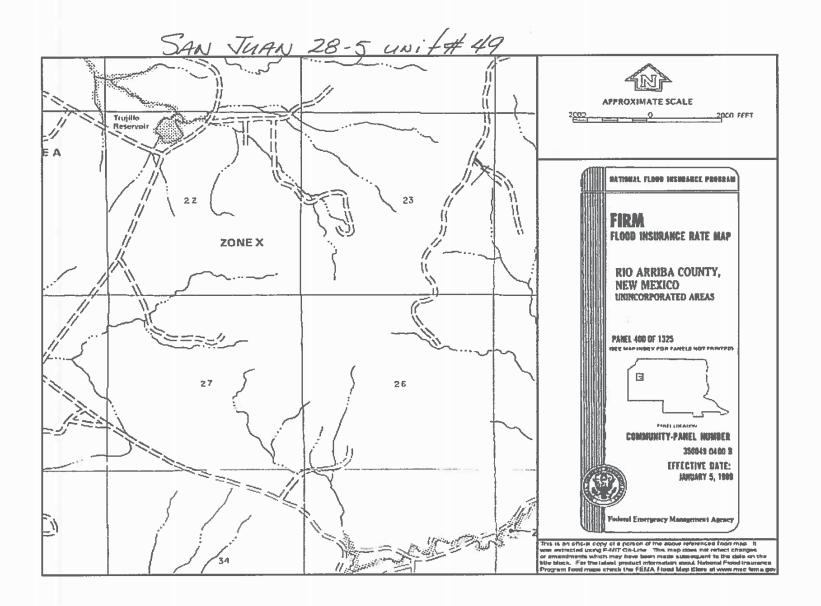
Unit Letter: H, Section: 23, Town: 028N, Range: 005W











SAN JUAN 28-5 UNIT 49

Site Specific Hydrogeology

Regional Gap Analysis Program. vegetation at this location is classified as Colorado Plateau Pinion-Juniper Woodland as per the Southwest located 2294 meters or 7524 feet above sea level and receives 14.5 inches of rain each year. is on BLM land and is 5,784 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 the west. The nearest large town (population greater than 10,000) is Farmington, located 49.4 miles to the of Township 28 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 26.4 miles to A visual site inspection confirming the information contained herein was performed on the well 'SAN JUAN 28-5 UNIT 49', which is located at 36.64957 degrees North latitude and 107.32222 degrees West longitude. This location is located on the Gobernador 7.5' USGS topographic quadrangle. This location is in section 23 west (National Atlas). The nearest highway is US Highway 64, located 4.1 miles to the north.

miles to the north as indicated on the Mines, Mills and Quarries Map of New Mexico provided from the NRCS SSURGO map unit, downloaded January 2008. complex, 15 to 45 percent slopes' and is well drained and not hydric with not rated erosion potential as taken dominated formations of all ages substrate. The soil at this location is 'Rock outcrop-Vessilla-Menefee 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 determined as per the USGS Hydrographic Dataset (High Resolution), downloaded 3/2008. The nearest water well is 6,564 feet to the west. The nearest wetland is an 8.0 acre other located 7,881 feet to the west. The nearest spring is 7,576 feet to the northeast. All stream, river, water body and spring information was body is 6,566 feet to the southeast. It is classified by the USGS as a perennial lake and is 0.1 acres in size. USGS as an intermittent stream. The nearest perrenial stream is 7,837 feet to the west. the proposed site are attached. The nearest stream is 921 feet to the southeast and is classified by the The estimated depth to ground water at this point is 649 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 slope at this location is 5 degrees to the northwest as calculated from USGS 30M National Elevation The nearest underground mine is The nearest water

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 with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlle distribution of sandstone in the formation. The distribution of such sandstone is the result of original San Juan River and its tributaries all tend to reduce the effective recharge to the unit. relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the and highly permeable and therefore readily adsorb precipitation. However, low annual precipitation, gallons per minute. Most of the wells provide water for livestock and domestic use. water wells completed in San Jose Formation ranges from 0.15 to 61 gallons per minute and the median is 5 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 depositional extent plus any post-depositional modifications, namely erosion and structural deformation. the west and south to almost 2,700 feet in the center of the structural basin). Ground water is associated 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 Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy Thus, the occurrence of ground water is mainly controlled by the The San Jose

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.

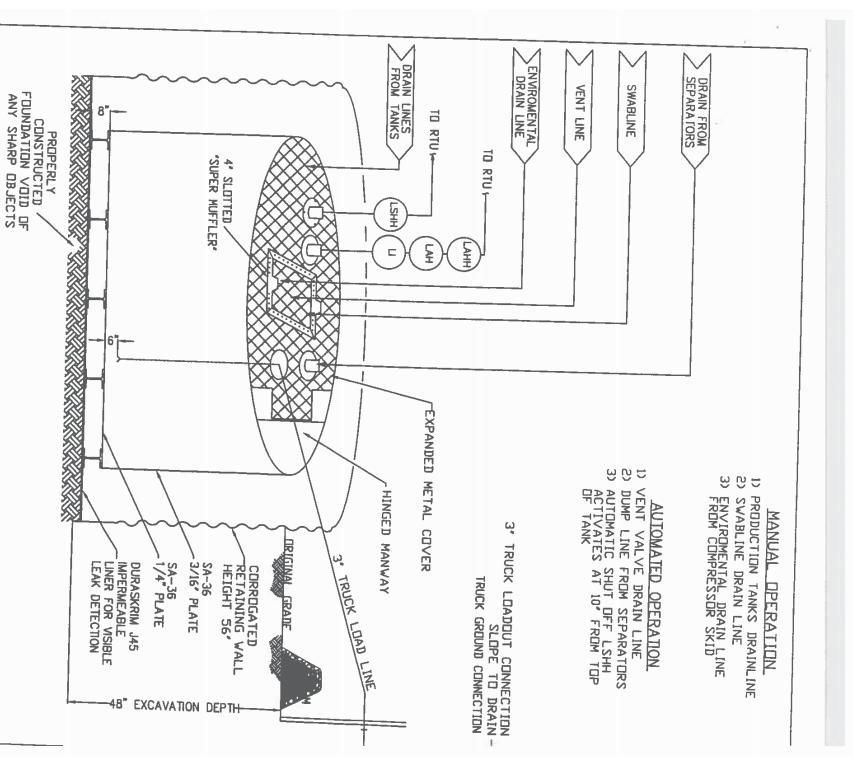
Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Design and Construction

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 In accordance with NMAC 19.15.17 the following information describes the design and

General Plan:

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

- 9 position. a manually operated drain and during normal operations it is in the closed normal operating procedures is in the closed position. our compressor skids. The swab drain line is a manually operated drain and by drain line is in place to capture any collected rain water or spilled lubricants from under normal operating conditions is in the open position. The environmental address this alarm. The environmental drain line from BR's compressor skid "Water-Hauling" Company indicating a high level and that action must be taken to page is sent to the BR MSO for that well site and to the designated contract entering the pit tank once a high level is detected. Furthermore, an electronic gagging of the vent valves prevents any hydrocarbon process streams from 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 BR has equipped the below-grade tanks with the ability to detect high level in the The tank drain line is also
- 10. The geomembrane liner consists of a 45-mil flexible LLDPE material attached displays the proper installation of the liner. applications. is attached. It is typically used in Brine Pond, Oilfield Pit liner and other industrial standard by 10%. J45BB has a warranty for 20 years from Raven Industries and denier (minimum) tri-directional scrim reinforcement. It exceeds ASTMD3083 for UV resistance in exposed applications. The J45BB is reinforced with 1300 strength polyethylene film manufactured using virgin grade resins and stabilizers manufactured by Raven Industries as J45BB. This product is a four layer reinforced laminated containing no adhesives. The outer layers consist of a high The manufacture specific sheet is attached and the design
- 11. The general specification for design and construction are attached in the BR document.



ConocoPhillips

San Juan Business Unit

PRODUCED WATER PIT TANK OPEN TOP GRAVITY FLOW TANK INTERNALLY COATED WITH 12-14 MILS AMERON AMERCOAT 385

RROPERTIES	TEST METHOD		J3088	J3	J368E		456
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll	Min. Roll	Typical Roll
Appearance		Blac	Black/Black	Black	Black/Black	Black	Black/Black
Thickness	ASTM D 5199	27 mil	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		ıx3	rusion laminate	**Extrusion laminated with encapsulated in-directional scrip	lled tri-direction		
Ply Adhesion	ASTM D 413	16 lbs	20 lbs	19 lbs	24 lbs	25 lbs	31 lbs
1° Tensile Strength	ASTM D 7003	88 lbf MD 63 lbf DO	110 lbf MD 79 lbf DD	90 Jbf 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 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD
1" Tensile Elongation @ Peak % (Scrim Break)	ASTM D 7003	20 MD 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 130 lbf DD	189 lbf MD 172 lbf DD	160 lbf MD	193 lbf MD
* Dimensional Stability	ASTM D 1204	2	<0.5	2	\$0.5		ΛO
Puncture Resistance	ASTM D 4833	50 lbf	64 lbf	65 lbf	83 lbf	80 lbf	99 lbf
Maximum Use Temperature		180° F	180° F	180° F	180° F	180° F	180° F
MD = Machine Direction		-70° F	-70° F	-70° F	-70° F	-70° F	-70° F

DD = Diagonal Directions



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 J308B, 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

York, SAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITTIESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, to quarantee of substrictory results from relance upon contrined information or resonamendations and ाज्य अताङ भी भिष्ठा पुर जिल्हाचारात्व bas or damage

PLANT LOCATION

Sioux Falls, South Dakota

SALES OFFICE

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

INDUSTRIES RAVEZ

EXPOSED GEOMEMBRANE LIMITED WARRANTY RAVEN INDUSTRIES INC

Raven Industries Inc. warrants Dura-Skrim J308B, J368B, and J458B 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 These dates will be updated prior to December 31, 2008

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

materials furnished or instalted by others in connection with the intended use of the Raven geomembranes steps to repair or replace the Raven geomembrane if a defect exists which is covered under this warranty. This Limited Wa extends only to Raven's geomembrane, and does not extend to the installation service of third parties nor does it extend to will have the right to inspect and determine the cause of any alleged defect in the Raven geomembrane and to take appropriate 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. Should defects or premature loss of use within the scope of the above Limited Warranty occur, Raven Industries Inc. This Limited Warranty

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

exceed the replacement cost of the material sold to the Purchaser for the particular installation in which it failed. or afterations 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 property damage. Raven industries inc. shall not be obligated to reimburse Purchaser for any repairs, replacement, modifications resulting from a breach of this warranty including, but not limited to, damages for loss of production, tost profits, personal injury or 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 the event the exclusive remedy provided herein fails in its essential purpose, and in that event only, the Purchaser shall be

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 Industrials Inc. Limited Warranty may only be modified by written document mutually executed by Owner and Raven Industries Inc

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

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 L'ADER 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, submitted for any BGT which does not conform to this plan. LP (BR) locations. This is BR's standard procedure for all BGT. A separate plan will be

General Plan:

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

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

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

General Requirements:

- the C144 Closure Report as required. danger to fresh water, public health or the environment. For any closure, BR will file tank's operation., or c) an eartier date that the division requires because of imminent NMAC; b) permitted below-grade tanks within 60 days of cessation of the below-grade 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 BR shall close a below-grade tank within the time periods provided in Subsection A of not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 not included in Paragraph (5) of Subsection I o f19.15.17.11 NMAC within five years, if
- N disposed of at the San Juan County Regional Landfill located on CR 3100. (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well 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 BR shall remove liquids and sludge from a below-grade tank prior to implementing a
- ω tank was disposed of or recycled will be provided in the closure report. appropriate division district office approves. Documentation of how the below-grade division-approved facility or recycle, reuse, or reclaim it in a manner that the BR will receive prior approval to remove the below-grade tank and dispose of it in a
- 4 remove the equipment, unless the equipment is required for some other purpose. If there is any on-site equipment associated with a below-grade tank, then BR shall
- Ç division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves BR shall notify the division of its results on form C-141. does not exceed 250 mg/kg, or the background concentration, whichever is greater. concentration, as determined by EPA method 418.1 or other EPA method that the or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH 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 the benzene concentration, as determined by EPA SW-846 methods 8021B or evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that individual grab samples from any area that is wet, discolored or showing other 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
- 9 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 recontour and re-vegetate the site. waste containing, earthen material; construct a division-prescribed soil cover; 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-
- œ the following: 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
- Operator's name
- and API number. Location by Unit Letter, Section, Township, and Range. Well name
- closure as per the approved closure plan via certified mail, return receipt requested The surface owner shall be notified of BR's closing of the below-grade tank prior to
- <u></u> shall have a uniform appearance with smooth surface, fitting the natural landscape. Re-contouring of location will match fit, shape, line, form and texture of the place in areas where needed to prevent erosion on a large scale. Final re-contour erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be surrounding. Re-shaping will include drainage control, prevent ponding, and prevent
- 11. BR shall seed the disturbed areas the first growing season after the operator closes planting will be continued until successful vegetative growth occurs. implemented with administrative approval if needed. BR will repeat seeding or alternate seed mix is required by the state, private owner or tribe, it will be noxious weeds, and maintain that cover through two successive growing seasons. least three native plant species, including at least one grass, but not including will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at approved if required) will be utilized on all State or private lands. Vegetative cover federally jurisdicted lands and division-approved seed mixtures (administratively or by other division-approved methods. BLM stipulated seed mixes will used on the pit. Seeding will be accomplished via drilling on the contour whenever practical
- A minimum of four feet of cover shall be achieved and the cover shall include one thickness of topsoil, whichever is greater. foot of suitable material to establish vegetation at the site, or the background
- 13. All closure activities will include proper documentation and be available for review grade tank. Closure report will be filed on C-144 and incorporate the following: upon request and will be submitted to OCD within 60 days of closure of the below-
- 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