District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

			1111 07303		appropriate 1414100	D District Office.
1900	Proposed Altern	Pit, Below-C			nnlication	
1985	Гуре of action: 🛛 Below gr					CONS. DIV DIST.
-31208 1-31244	☐ Modifica ☐ Closure p	of a pit, below-grade to tion to an existing per- plan only submitted for	mit/or registrat	tion		JUL 3 0 2014 v-grade tank,
. 0	or proposed alternative method					
9.0110	Instructions: Please submit one of					
Please be advised that environment. Nor doe	approval of this request does not re es approval relieve the operator of it	lieve the operator of liability responsibility to comply	lity should opera	tions result in pollutio applicable governmen	on of surface water, tal authority's rules.	ground water or the regulations or ordinances.
1.			·			
Operator:	WPX Energy Production	, TTC		OGRID #:	120782	
Address:	PO Box 640/721 S Main	Aztec, NM 87410				
	ne: <u>Chaco 2307-13I 187H, Chac</u>					
API Number: <u>30-0</u>	039-31208, 30-039-31244, 30-03	9-31245		OCD Permit Numbe	r:	
U/L or Qtr/Qtr	I Section 13	Township <u>23N</u>	Range	07W County	y: <u>Rio Ar</u>	iba
Center of Proposed	Design: Latitude 36.22264		Longitude 10	07.52055	NAD	: □1927 🛛 1983
	Federal State Private T					
Permanent E Lined Unlir String-Reinforce	illing	mil LLDPE	☐ HDPE ☐ I	PVC Other		
						· <u> </u>
3.	nk: Subsection I of 19.15.17.11	NIMAC				
	20 bbl Type of 1		luced Water			
	material: Double wall, double		iucca water			-
Secondary cont	tainment with leak detection \(\sigma\)	Visible sidewalls, liner,				
Î	ess mil [
	.555		Other			
Alternative Met Submittal of an exce	thod: eption request is required. Excep	tions must be submitted	to the Santa Fe	Environmental Bure	au office for consid	leration of approval.
5. ,						
	on D of 19.15.17.11 NMAC <i>(Appl</i>	ies to permanent pits, ter	nporary pits, an	nd below-grade tank:	5)	
institution or church	•			1000 feet of a perm	anent residence, sc	hool, hospital,
Four foot height,	, four strands of barbed wire even	ly spaced between one a	nd four feet			

As per BLM specifications

Alternate. Please specify_

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other	
Monthly inspections (If netting or screening is not physically feasible)	
7.	
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
☑ Signed in compliance with 19.15.16.8 NMAC	
8.	
<u>Variances and Exceptions:</u> 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:	
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
9	
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 acceptate are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source
General siting	
Cround water is less than 25 feet helevy the bettem of a lesy phienide temperature it as helesy made to the	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☑ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	│
	☐ Yes ☐ No
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	NA NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) - Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)	☐ Yes ☐ No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	
Within an unstable area. (Does not apply to below grade tanks) - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Society; Topographic map	
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	Yes No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured	☐ Yes 🛛 No
from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.	☐ Yes ☑ No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole,	Yes No
or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	LI Yes LI NO
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	☐ Yes ☐ No
 application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock	
watering purposes, or 300feet 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 search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC	nments are
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the	documents are
attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC	
 □ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC □ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC □ Quality Control/Quality Assurance Construction and Installation Plan □ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC 	
 □ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC □ Nuisance or Hazardous Odors, including H₂S, Prevention Plan □ Emergency Response Plan □ Oil Field Waste Stream Characterization □ Monitoring and Inspection Plan 	
Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F	luid Management Pit
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	
14. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be	attached to the
waste Excavation and Removar Closure Plan Checkinst: (19.13.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached. □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC □ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	
15.	
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. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. F 19.15.17.10 NMAC for guidance.	
Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes No
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	
Land approximate approximate approximate manner painty	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	-
Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	Yes No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 Construction/Design 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 (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be 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 H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	NMAC 17.11 NMAC
17.	
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.	
Name (Print): Vanessa Fields Title: Environmental Specialist	
Title: Environmental Specialist	<u></u>
Signature: Date: 6-30-2014	
e-mail address: Vanessa.Fields@wpxenergy.com Telephone: 505-333-1880	
OCD Approval: Permit Application (including absure plan)	
OCD Representative Signature: Approval Date: 7/30	/14
	/ / 4
Title: <u>Environmental Spec</u> OCD Permit Number: 11985	
19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not consection of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date:	e closure report. mplete this
20. Closure Method: Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop ☐ If different from approved plan, please explain.	systems only)
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indice mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number	ate, by a check

Operator Closure Certification:		
	omitted with this closure report is true, accurate and complete to the best of my opplicable closure requirements and conditions specified in the approved closure	
Name (Print):	Title:	
Signature:	Date:	
e-mail address:	Telephone:	



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,

O=orphaned, C=the file is

POD

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

closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

QQQ

Depth Depth Water Y Well Water Column

POD Number

Code Subbasin County 64 16 4 Sec Tws Rng

274330 4012555* 1500

SJ 01156

2 2 1 18 23N 06W

1300

SJ 01506

1 1 3 22 23N 06W 278535

4010015* 280

200 feet

Average Depth to Water:

Minimum Depth:

200 feet

Maximum Depth: 200 feet

Record Count: 2

PLSS Search:

Township: 23N

Range: 06W

*UTM location was derived from PLSS - see Help

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

1/30/13 2:57 PM

Page 1 of 1

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a

(R=POD has been replaced,

O=orphaned, C=the file is

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

water right file.)	closed)	((quarters	are	sm	all	est to	large	est)	(NAD83 UTN	In meters))	(In fee	et)
• •		POD		Q	Q	Q				,		Depth	Depth	Water
POD Number	Code S	ubbasin	County	64	16	4	Sec	Tws	Rng	, X	<u>Y</u>			Column
SJ 01507			RA	3	3	4	10	23N	07W	269889	4013098*	1709	900	809
SJ 02233			RA	1	1	2	15	23N	07W	269856	4012864*	1100		
SJ 02233 CLW223636	0		RA	1	1	2	15	23N	07W	269856	4012864*	1100		
										Avera	age Depth to	o Water	900	feet
			ı								Minimun	n Depth	900	feet
											Maximun	Depth:	900	feet

Record Count: 3

PLSS Search:

Township: 23N

Range: 07W

*UTM location was derived from PLSS - see Help

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

1/30/13 2:51 PM

Page 1 of 1

WATER COLUMN/ AVERAGE DEPTH TO WATER

Hydrogeological Report WPX Energy Production, LLC Chaco 2307-131 187H

Regional Hydrological Context

Referenced Well Location:

The referenced well and pit is located on Bureau of Land Management land within Farmington Field Office (FFO) jurisdiction in Rio Arriba County, New Mexico. This site is positioned in the northeastern portion of the San Juan Basin, an asymmetrical syncline that extends from northwestern New Mexico into southwestern Colorado (Carson National Forest FEIS, 2008). Elevation of the referenced well is approximately 6,926 feet MSL.

General Regional Groundwater Description:

As a portion of the San Juan Basin, the FFO is underlain by sandstone aquifers of the Colorado Plateau. The primary aquifer of potential concern at this location is the Uinta-Animas Aquifer, composed primarily of Lower Tertiary rocks in the San Juan Basin. The aquifer consists of the San Jose Formation; the underlying Animas formation and its lateral equivalent, the Nacimiento formation; and the Ojo Alamo Sandstone. The thickness of the Uinta-Animas aquifer generally increases toward the central part of the basin. In this region, the maximum thickness of the aquifer is approximately 3500 feet (USGS, 2001). This aquifer contains fresh to moderately saline water.

Groundwater generally flows toward the San Juan River and its tributaries, where it becomes alluvial groundwater or is discharged to stream flow. Additional information regarding the hydrogeologic setting can be found in the provided references.

Site Specific Information:

Surface Hydrology: The pit is located mostly in the open valley bottom formed by

upper Escrito Canyon.

1st Water Bearing Formation:

San Jose, Tertiary Approximately 1,900 ft. Nacimiento, Tertiary

Underlying Formation: Depth to Groundwater:

Formation Thickness:

Depth to groundwater is estimated at greater than 100 feet below bottom of pit liner. Within a one-mile radius of this location, there is no iWATERS well with recorded water depth. However, this is a test well with depth to moisture at 193' (see Siting

Criteria Map I for details).

References:

Allen, Erin. Undated. Colorado Plateau Aquifers.

http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html.

New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2010. Internet accessed January 2010.

New Mexico Office of the State Engineer. 2013. iWaters database. Internet accessed July 2013.

New Mexico WQCC. 2005. State of New Mexico Water Quality Act and the Water Control Commission Regulations.

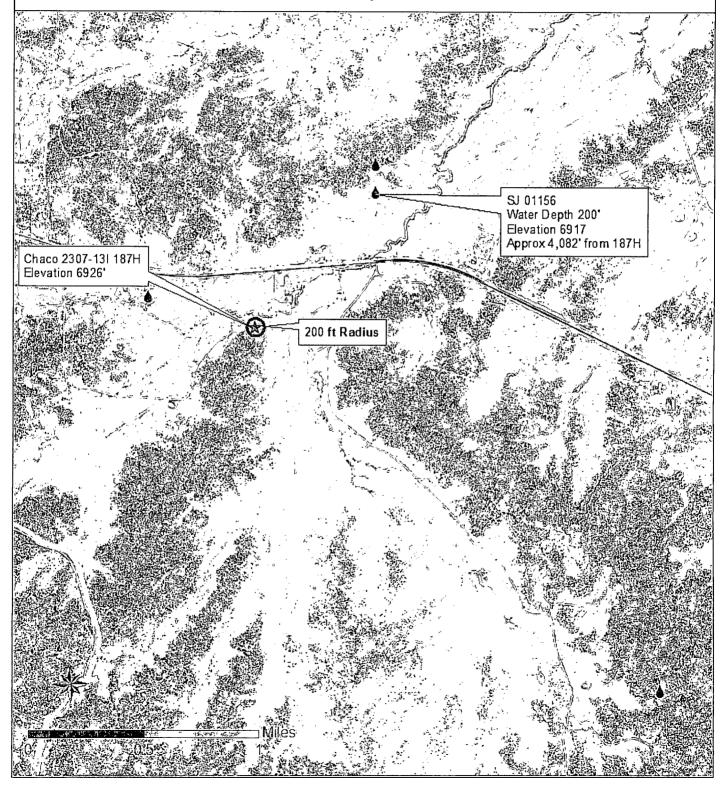
United States Department of Agriculture, Forest Service. 2008. Final Environmental Impact Statement for Surface Management of Gas Leasing and Development. Jicarilla Ranger District, Carson National Forest, Rio Arriba County, New Mexico.

United States Department of the Interior. Bureau of Land Management. 2003. Final Farmington Resource Management Plan and Final Environmental Impact Statement. Farmington Field Office, Farmington, New Mexico.

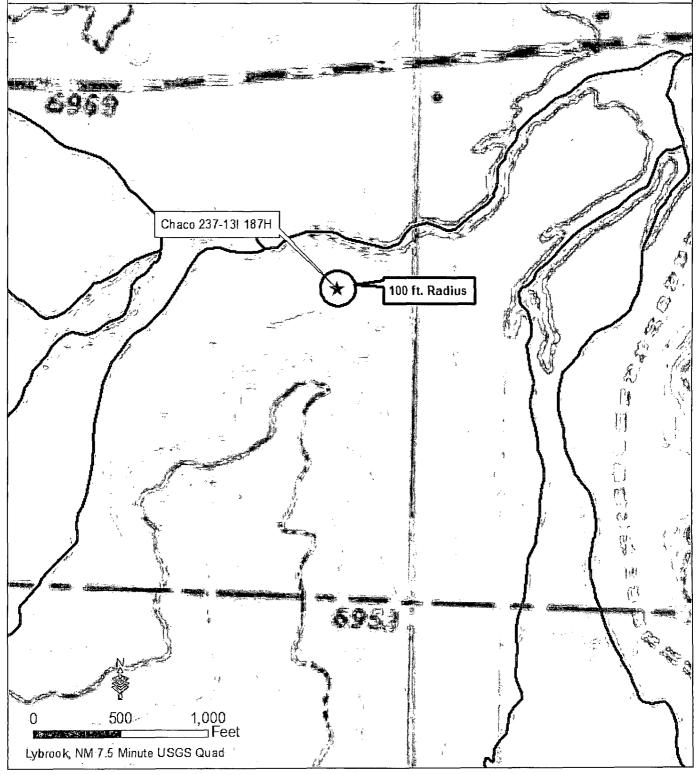
United States Geological Survey. 2001. Ground Water Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C;

Form C-144 Oil Conservation Division Page 9 of 22

Siting Criteria Map I Water Wells WPX Energy Production, LLC Chaco 2307-13I 187H T23N, R07W, Section 13 NMPM Rio Arriba County, New Mexico



Siting Criteria Map II
Topographic Features
WPX Energy Production, LLC
Chaco 2307-13I 187H
T23N, R07W, Section 13 NMPM
Rio Arriba Country, New Mexico



Siting Criteria Compliance Demonstrations:

- The Chaco 2307-13I 187H well is not located in an unstable area.
- The location is not situated over a mine or a steep slope. Excavated pit material will not be located within 100 feet of a continuously flowing water course or within 100 feet of any other significant water course, lakebed, sinkhole, or playa lake (see Siting Criteria Map II). The site is not within 100 feet of any reported riparian areas or wetlands (see attached USFWS wetland map); within 200 feet of any private, domestic fresh water well or spring; or within 200 feet of any other fresh water well or spring (see Siting Criteria Map I).
- The pit will not be within any incorporated municipal boundaries or defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. The location of the proposed pit is not within 200 feet of any permanent residence, school, hospital, institution, or church.



WPX Energy requests the following variances:

- 1. The BGT will be protected from run on by being installed upon a top felt rock shield with a overlay of 30 mil rubber liner attached to the sidewalls of the inside of the containment berm. The 30 mill rubber liner will provide equal and/or better protection in the prevention of contamination of fresh water and protecting public health and the environment.

 (See attached photo))
- 2. A 42 inch tall, 12 gauge coated metal steel fence will be constructed around the BGT to protect livestock/wildlife as specified by the federal Surface Management Agency or, if not federal land/minerals; which will provide equal and/or better protection of a fence while preventing contamination of fresh water, protecting public health and the environment. (See attached photo)
- 3. If the surface owner is of public entity (i.e.: BLM) WPX Energy will notify by email the intent to close the BGT in place of a certified mail letter. WPX Energy will request a read receipt of the email which will be equal and/ or equivalent notification as certified mail.

Thank you,

Vanessa Fields Environmental Specialist

CC: /
Environmental File

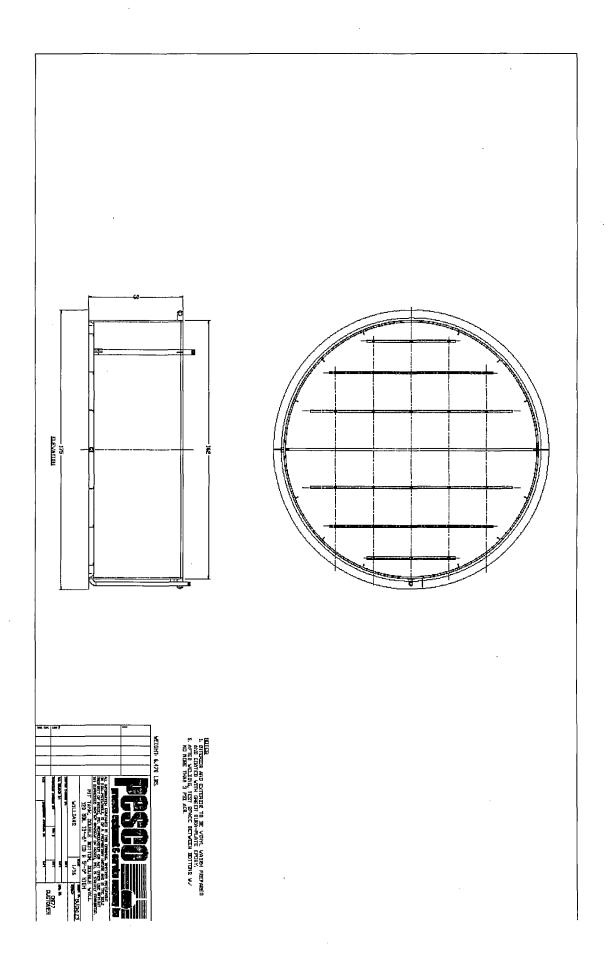
WPX Energy Co., LLC San Juan Basin: New Mexico Assets

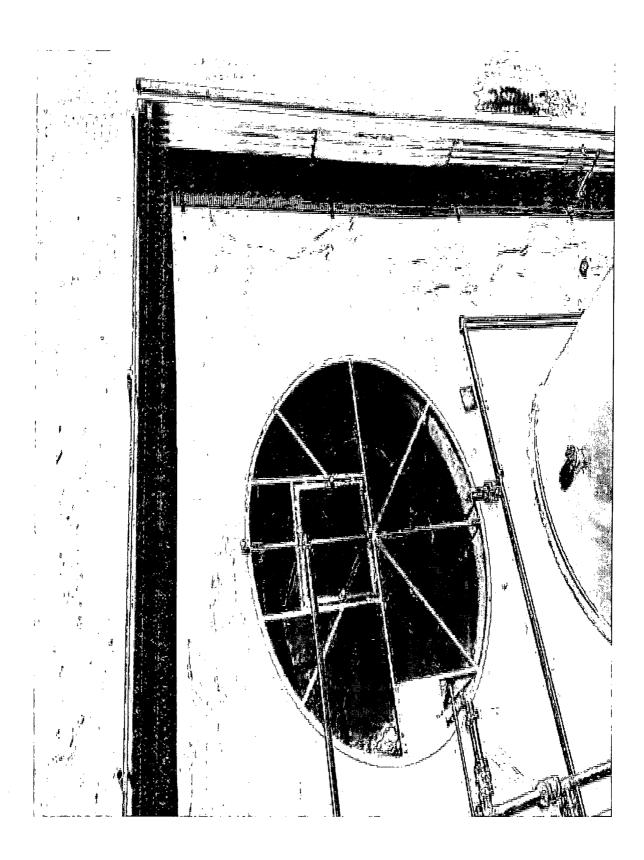
Production BGT: Buried Double-Wall Steel Tank
Design and Construction Plan

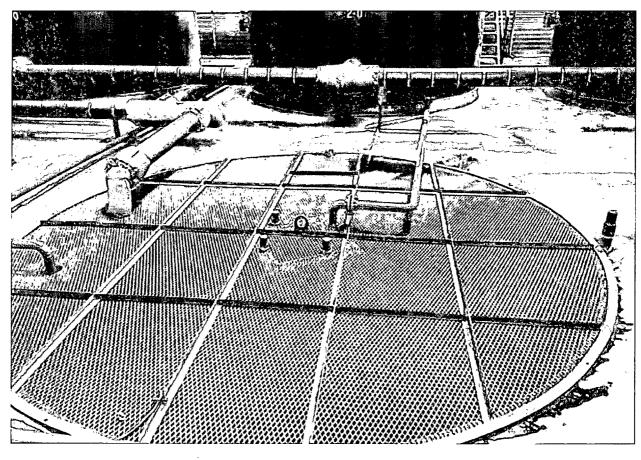
In accordance with Rule 19.15.17 NMAC, the following plan describes the general design and construction (D&C) of Below Grade Tanks (BGT) using buried double-wall steel tanks on WPX Energy Co, LLC (WPX) locations in the San Juan Basin of New Mexico. For those BGT which do not conform to this standard plan, a separate well-specific D&C plan will be developed and utilized.

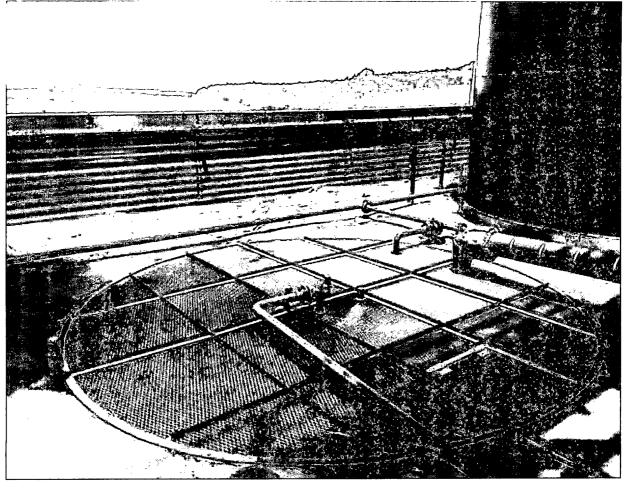
General Plan Requirements:

- 1. WPX will post a well sign in accordance with the federal Surface Management Agency and rule NMAC 19.15.17.11.C
- 2. As a variance a 42 inch tall, 12 gauge coated metal steel "Fence" will be constructed around the BGT to protect livestock/wildlife as specified by the federal Surface Management Agency or, if not federal land/minerals, NMOCD rule 17 requirements. See Attached Design/photo.
- 3. The buried BGT will be constructed of steel with double-walls and double-bottom, welded following appropriate API and industry codes, coated with an epoxy based paint, covered with a steel #9 mesh screen, and equipped with an EFM to monitor high liquid levels and automatically shut off liquid discharges. A solid riser pipe will be installed between the interstitial space of the double-walls to allow monthly inspection to determine tank integrity.
- 4. WPX will design and construct a BGT to contain liquids associated with the dehydration and compression of produced natural gas, which will be resistant to ultra violet light and the contents of the tank to prevent contamination of fresh water resources and protect public health and the environment.
- 5. The BGT foundation will be level and free of rocks, debris, sharp edges or irregularities and have a firm compacted bottom and sidewalls that are stable for the soil conditions.
- 6. The BGT will be protected from run on by being installed within the impervious secondary containment provided by the AST tanks on location. See attached Design (Same as Fence)
- 7. The BGT will be placed in the excavation such that there is 30 mil rubber liner overlay between the surrounding soils and the tank top see attached design.
- 8. A solid riser pipe will be installed to allow withdrawal of liquids by suction. The riser will draw from the bottom of the BGT, capped when not in use and sloped to the ABGT to allow drainage of liquids not collected during withdrawal operations.









WPX Energy Co., LLC San Juan Basin: New Mexico Assets

Production BGT: Buried Double-Wall Steel Tank Operations and Maintenance Plan

In accordance with Rule 19.15.17 NMAC, the following plan describes the general operations and maintenance (O&M) of production Below Grade Tanks (BGT) on WPX Energy Co, LLC (WPX) locations in the San Juan Basin of New Mexico. For those BGT which do not conform to this standard O&M plan, a separate well specific O&M plan will be developed and utilized.

- 1. WPX will inspect the BGT monthly for leaks and damage. Electronic copies of the inspections will be kept at the WPX San Juan Basin office for a minimum of five years following completion. Copies of the inspections will be available to NMOCD upon request.
- 2. Any oil or hydrocarbon collecting on the BGT will be removed. Saleable condensate will be returned to the sales tank. Slop oil from compression will be recycled with Safety Kleen, Farmington, NM or Hydropure, Aztec, NM (No Permit Required).
- 3. WPX will only allow produced liquids meeting the RCRA exemption for O&G wastes to be stored in the BGT. WPX will not discharge or store any hazardous waste as defined under RCRA 40CFR 261 and 19.15.2.7.H.3 NMAC in any BGT.
- 4. WPX shall maintain sufficient freeboard for to prevent overflow. Discharges to the BGT will be shutoff automatically if the high-level alarm is triggered from the EFM or manually if the EFM is not functional.
- 5. The Steel fencing around the perimeter of the BGT shall be maintained as protection from run-on.
- 6. Produced water will be disposed by evaporation or transport any of the following NMOCD approved facilities depending on the well location: Basin Disposal, Inc in Bloomfield, New Mexico (Permit # NM-01-005), WPX Energy Rosa SWD#1 (Permit # SWD-916), WPX Energy Rosa #94 (Permit # SWD-758), Burlington Resources Jillson SWD#1 (Permit #R10168A), or other NMOCD approved water disposal facilities.
- 7. If the tank integrity is compromised:
 - a. All discharges will be shut off to the BGT.
 - b. All liquids will be removed as soon as possible but no later than 24 hours after discovery.
 - c. WPX will notify and report to NMOCD in accordance to 19.15.29 NMAC and all other applicable agency's as require.

WPX Energy Co., LLC San Juan Basin: New Mexico Assets

Production BGT: Buried Double-Wall Steel Tank Closure Plan

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of below-grade tanks (BGT) on WPX Energy Co, LLC (WPX) locations in the San Juan Basin of New Mexico. This is WPX's standard closure procedure for all BGTs regulated under Rule 19.15.17 NMAC and operated by WPX. For those closures which do not conform to this standard closure plan, a separate BGT specific closure plan will be developed and utilized.

Closure Conditions and Timing for BGT:

- Within 60 days of cessation of operation WPX will:
 - o Remove all liquids and sludge and dispose in a division approved manner
- Within 72 Hrs or 1 week prior to closure WPX will:
 - o Give notice to Surface owners by certified mail. For public entities by email as specified on the variance page.
 - o Give notice to District Division verbally and in writing/email
- Within 6 months of cessation of operation WPX will:
 - Remove BGT and dispose, recycle, reuse, or reclaim in a division approved manner
 - Remove unused onsite equipment associated with the BGT
- Within 60 Days of Closure WPX will:
 - o Send the District Division a Closure Report per 19.15.17.13.F

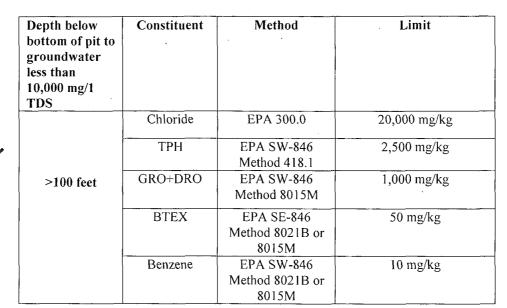
General Plan Requirements:

- 1. Prior to initiating any BGT Closure except in the case of an emergency, WPX will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or 1 week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner of record will be notified as soon as practical.
- 2. Notice of Closure will be given to the Aztec District office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
 - a. Operators Name (WPX)
 - b. Well Name and API Number
 - c. Location (USTR)
- All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed at one of the following NMOCD approved facilities depending on the proximity of the BGT site: Rosa Unit SWD #1 (Order: SWD-916, API: 30-039-27055), Rosa Unit #94 (Order: SWD-3RP-1003-0, API: 30-039-23035), Jillson Fed. SWD #001 (Order: R10168/R10168A, API: 30-039-25465), Middle Mesa SWD #001 (Order: SWD-350-0, API: 30-045-27004) and/or Basin Disposal (Permit: NM-01-0005).
 - 4. Solids and sludge's will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011).

- 5. WPX will obtain prior approval from NMOCD to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liners materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.
- 6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure will be removed from the location.
- 7. Following removal of the tank and any liner material, WPX will test the soils beneath the BGT as follows:
 - a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
 - b. The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13

Depth below bottom of pit to groundwater less than 10,000 mg/1 TDS	Constituent	Method	Limit
	Chloride	EPA 300.0	600 mg/kg
:	ТРН	EPA SW-846 Method 418.1	100 mg/kg
≤50 feet	BTEX	EPA SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

Depth below bottom of pit to groundwater less than 10,000 mg/1 TDS	Constituent	Method	Limit
	Chloride	EPA 300.0	10,000 mg/kg
	ТРН	EPA SW-846 Method 418.1	2,500 mg/kg
51 feet-100 feet	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg





- (1) Or other test methods approved by the division
- (2) Numerical limits or natural background level, whichever is greater (19.15.17.13 NMAC-Ro, 19.15.17.13 NMAC 3/28/2013)
- 8. If the Division and/or WPX determine there is a release, WPX will comply with 19.15.17.13.C.3b
- 9. Upon completion of the tank removal, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot of top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and prevent ponding.

For those portions of the former BGT area no longer required for production activities, WPX will seed the disturbed areas the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. WPX will notify the Division when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- a. Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels
- b. Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds)

OR

- c. Pursuant to 19.15.17.13.H.5d WPX will comply with obligations imposed by other applicable federal or tribal agencies in which their re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.
- 10. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

Closure Report:

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner & NMOCD)
- Backfilling & Cover Installation
- Confirmation Sampling Analytical Results
- Disposal Facility Name(s) and Permit Number(s)
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

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

	Pit, Belc	ow-Grade Tank, o	or	
1985	Proposed Alternative Metho			cation
·	Type of action: Below grade tank registra			
	Permit of a pit or propose	d alternative method		
	Closure of a pit, below-gr			
1-31208	☐ Modification to an existin☐ Closure plan only submitt			d nit helow-grade tank
9-31244	or proposed alternative method	ed for an existing perm	itted of non-perimited	J pit, ociow-grade tank,
9-31245		C-144) per individual pit	, below-grade tank or c	ilternative request
Please be advised	d that approval of this request does not relieve the operator of	of liability should operations	result in pollution of su	rface water, ground water or the
environment. No	or does approval relieve the operator of its responsibility to c	comply with any other appli	cable governmental auth	ority's rules, regulations or ordinances.
Operator:	WPX Energy Production' LLC	OC	RID#:	20782
	PO Box 640/721 S Main Aztec, NM 874			20702
	I name: Chaco 2307-131 187H, Chaco 2307-131 #2031-			
	30-039-31208, 30-039-31244, 30-039-31245			
	osed Design: Latitude 36.22294		•	
	r: 🛮 Federal 🔲 State 🗀 Private 🗀 Tribal Trust or Indi		_	
				OLL CONS. DIV DIST. 3
2.	ection F, G or J of 19.15.17.11 NMAC	tWENDEY		JUN 3 0 2014
	Drilling Workover	11		JUN 3. U ZU14
•	☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well	Eluid Monagement	Low Chlorida Dr	illian Bluid Duga Dina
	Unlined Liner type: Thickness mil LL			
☐ String-Rein		TOLE TIME	. U Other	
-		Volume	bbl Dimensions	w t
Lilici Scallis. i	☐ Welded ☐ Factory ☐ Other	voiume	DOI DIMENSIONS.	L x w x D
3.				8.
•	de tank: Subsection I of 19.15.17.11 NMAC			CONS. DIV DIST. 3
	bbl Type of fluid:	Produced Water		11 IN 2 " NIST. 3
	tion material: Double wall, double bottom, Steel			JUN 3 0 2014
-	containment with leak detection \(\subseteq \text{Visible sidewalls,} \)		natic overflow shut-off	•
	dewalls and liner Visible sidewalls only Other			
Liner type: Th	nicknessmil	C Other		
4.				
Alternative	e Method:			
Submittal of an	n exception request is required. Exceptions must be sub	mitted to the Santa Fe Env	vironmental Bureau offi	ce for consideration of approval.
5.				
	section D of 19.15.17.11 NMAC (Applies to permanent p			
	six feet in height, two strands of barbed wire at top (Req	juired if located within 100	90 feet of a permanent i	residence, school, hospital,
institution or co	church) eight, four strands of barbed wire evenly spaced betweer	one and four feet		
	Please specify As per BLM specifications	Tone and roar root		
Antemate.	1 lease specify 1/3 per BEW specifications			