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

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, Below-Grade Ta	ank, or
Proposed Alternative Method Permit or	Closure Plan Application
Arrended Proposed Alternative Method Permit or Permit of a pit or proposed alternative met Closure of a pit, below-grade tank, or prop Modification to an existing permit/or regis Closure plan only submitted for an existing	
Permit of a pit or proposed alternative met	
Modification to an existing permit/or regis	stration
Closure plan only submitted for an existing or proposed alternative method	g permitted or non-permitted pit, below-grade tank,
Instructions: Please submit one application (Form C-144) per individ	dual pit below-arade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should op	
environment. Nor does approval relieve the operator of its responsibility to comply with any oth	her applicable governmental authority's rules, regulations or ordinances.
Operator:WPX Energy Production' LLC	OGRID #: 120782
Address: PO Box 640/721 S Main Aztec, NM 87410	
Facility or well name: Chaco 2308-04P 149H, Chaco 2308-04P #150H	
API Number: 30-045-35495,30-045-35497 O	
U/L or Qtr/Qtr Section4 Township23N Range	
Center of Proposed Design: Latitude <u>36.25210</u> Longitude Longitude Longitude Longitude Longitude Longitude Longitude Longitude	-107.67913W
Surface Owner: 🛛 Federal 🗋 State 🗋 Private 🗋 Tribal Trust or Indian Allotment	OIL CONS. DIV D.C
2.	MAR 1 9 2014
Pit: Subsection F, G or J of 19.15.17.11 NMAC	Biter.
Temporary: Drilling Workover	
Permanent Emergency Cavitation P&A Multi-Well Fluid Managemen	-
Lined Unlined Liner type: Thicknessmil LLDPE HDPE	-
Lined Unlined Liner type: Thicknessmil LLDPE HDPE [	PVC Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE	PVC Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE LDPE LDPE LDPE LDPE LDPE LDPE LDPE L	PVC Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE HDPE String-Reinforced Liner Seams: Welded Factory OtherVolume:	PVC Other      bbl Dimensions: Lx Wx D
Lined       Unlined       Liner type:       Thicknessmil       LLDPE       HDPE         String-Reinforced         Liner Seams:       Welded       Factory       OtherVolume:         3.       Subsection I of 19.15.17.11 NMAC         Volume:       120       bbl       Type of fluid:       Produced Water	PVC Other      bbl Dimensions: Lx Wx D
□ Lined       □ Unlined       Liner type: Thicknessmil       □ LLDPE       □ HDPE         □ String-Reinforced         Liner Seams:       □ Welded       □ Factory       □ OtherVolume:Volume:         3.       □       Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:      bbl       Type of fluid:Produced Water         Tank Construction material:      Double wall, double bottom, Steel	PVC Other      bbl Dimensions: Lx Wx D
□ Lined       □ Unlined       Liner type: Thicknessmil       □ LLDPE       □ HDPE         □ String-Reinforced         Liner Seams:       □ Welded       □ Factory       □ Other      Volume:         3.         ○ Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:       120      bbl       Type of fluid:      Produced Water         Tank Construction material:      Double wall, double bottom, Steel         ☑ Secondary containment with leak detection       □ Visible sidewalls, liner, 6-inch lift ar	PVC Other
□ Lined       □ Unlined       Liner type: Thicknessmil       □ LLDPE       □ HDPE         □ String-Reinforced         Liner Seams:       □ Welded       □ Factory       □ OtherVolume:Volume:         3.       □       Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:      bbl       Type of fluid:Produced Water         Tank Construction material:      Double wall, double bottom, Steel	PVC Other
□ Lined       □ Unlined       Liner type: Thicknessmil       □ LLDPE       □ HDPE         □ String-Reinforced         Liner Seams:       □ Welded       □ Factory       □ Other      Volume:         3.         ③       Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:       120       bbl       Type of fluid:       Produced Water         Tank Construction material:	PVC Other
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced	PVC Other
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced        Other        Volume:          3.	PVC Other
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced	PVC Other
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced        Volume:        Volume:          3.       □       Below-grade tank:       Subsection I of 19.15.17.11 NMAC       Volume:	PVC       Other        bbl       Dimensions: Lx Wx D        bbl       Dimensions: Lx Wx D
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced	PVC       Other        bbl       Dimensions: Lx Wx D        bbl       Dimensions: Lx W
□       Lined       Unlined       Liner type: Thickness      mil       □       LLDPE       □       HDPE       □         □       String-Reinforced	PVC       Other        bbl       Dimensions: Lx Wx D        bbl       Dimensions: Lx W

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)

### 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

### Variances and Exceptions:

7

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. <u>Siting Criteria (regarding permitting)</u> : 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.								
General siting								
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 □ NA							
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	☐ Yes ⊠ No ☐ NA							
<ul> <li>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. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	🗋 Yes 🗌 No							
Within the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗋 Yes 🗌 No							
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	🗋 Yes 🗌 No							
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	🗋 Yes 🗌 No							
Below Grade Tanks								
<ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🛛 No							
<ul> <li>Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🛛 No							
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)								
<ul> <li>Within 100 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). (Applies to low chloride temporary pits.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🗌 No							
<ul> <li>Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗋 Yes 🗌 No							
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.	Yes No							

] Yes 🗌 No
] Yes 🗌 No
Yes 🗌 No
] Yes 🗌 No
Yes 🗌 No
AC Aents are 1AC 7.9 NMAC
ents are 17.9 NMAC
] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ]

12.		
<b>Permanent Pits Permit Application Checklist:</b> 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 d	locuments are
<ul> <li>attached.</li> <li>Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Climatological Factors Assessment</li> <li>Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>		
<ul> <li>Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMA</li> <li>Quality Control/Quality Assurance Construction and Installation Plan</li> </ul>	AC	
<ul> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> <li>Emergency Response Plan</li> <li>Oil Field Waste Stream Characterization</li> </ul>	RCVD MAR OIL CONS	. DIV.
<ul> <li>Monitoring and Inspection Plan</li> <li>Erosion Control Plan</li> </ul>	DIST.	3
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NM	MAC	
<sup>13.</sup> <u>Proposed Closure</u> : 19.15.17.13 NMAC <i>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</i>		
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank CAlternative Alternative Proposed Closure Method: Waste Excavation and Removal	] Multi-well Fl	uid Management Pit
Waste Removal (Closed-loop systems only)		
On-site Closure Method (Only for temporary pits and closed-loop systems)		
In-place Burial Don-site Trench Burial Alternative Closure Method		
14.		
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following in closure plan. Please indicate, by a check mark in the box, that the documents are attached.	.13 NMAC	
15. Siting Criteria (recording on site cleaves methods only), 10.15.17.10 NMAC		
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 a provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of e 19.15.17.10 NMAC for guidance.		
<ul> <li>Ground water is less than 25 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>		☐ Yes ⊠ No □ NA
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		X Yes No
<ul> <li>Ground water is more than 100 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>		□ Yes ⊠ No □ NA
<ul> <li>Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	e, or playa	🗌 Yes 🖾 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial appli</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	cation.	🗌 Yes 🕅 No
<ul> <li>Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, at the time of initial application.</li> <li>NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site</li> </ul>	in existence	🗌 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	🗌 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								
16.	<u> </u>							
On-Site Closure Plan Checklist:       (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.								
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 beli	ef.							
Name (Print):								
Signature: Date: Date: Date:								
e-mail address: vanessa.fields@wpxenergy.com Telephone: 505-333-1880								
is. <u>OCD Approval</u> : Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)								
OCD Representative Signature: Killy Approval Date: 4/1/201	4							
Title: Compliance Office OCD Permit Number:								
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 closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.								
20. <u>Closure Method</u> : Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-lo If different from approved plan, please explain.	op systems only)							
21.								
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please immark 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         Soil Backfilling and Cover Installation         Re-vegetation Application Rates and Seeding Technique         Site Reclamation (Photo Documentation)         On-site Closure Location: Latitude       Longitude								

22. Operator Closure Certification:	
I hereby certify that the information and attachments submitted belief. I also certify that the closure complies with all applicat	d with this closure report is true, accurate and complete to the best of my knowledge and ble closure requirements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:



721. South Main Street Aztec, NM 87410

March 18, 2014

OIL CONS. DIV DIST. 3 MAR 1 9 2014

Jonathan Kelly New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, NM 87410

Dear Mr. Kelly

WPX Energy request a variance for a 42 in tall, 12 gauge coated metal steel ring will be installed in replacement of a fence.

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 containment berm.

A 42 inch tall, 12 gauge coated metal steel 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.

Phank you Vanessa Fields

Environmental Specialist

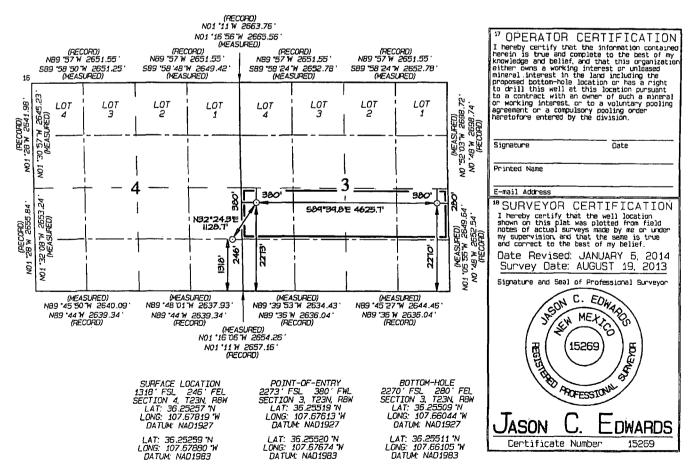
CC: / Environmental File

District I 1625 N. French Drive, Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 State of New Mexico Form C-102 Revised August 1, 2011 Energy, Minerals & Natural Resources Department District II B11 S. First Street, Artesia. NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 Submit one copy to Appropriate District Office OIL CONSERVATION DIVISION District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 1220 South St. Francis Drive AMENDED REPORT Santa Fe, NM 87505 District IV 1220 S. St. Francis Drive, Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

14	VPI Numbe	<u>г</u>		*Pool Coo 47540									
*Property	Code	•		*Property Name *We CHACO 2308-04P									
'OGRID 1 12078			<u></u> .	*Operator Name *Elevation WPX ENERGY PRODUCTION, LLC 6871									
				<u> </u>	<sup>10</sup> Surface	Location	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					
UL or lot no.	Section	Taxnship	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
Р	4	23N	8W		1318	SAN JUAN							
L	<sup>11</sup> Bottom Hole Location If Different From Surface												
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
I	З	23N	8W		2270 SOUTH 280 EAST SAN JUA								
<sup>12</sup> Dedicated Acres	N/2	160.0 / S/2 -		а З	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>25</sup> Order No.	<b>.</b>					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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### MO-TE DRILLING, INC.

DAY Wed DRILLER SPICEMAN LEFT TOWN ARRIVED FIELD HELPER ANCLU LEFT FIELD **ARRIVED TOWN** HELPER TOKEN TOTAL FOOTAGE TODAY RIG NO. 21 DATE 17 CLIENT | 2 JEGIN WORK ON HOLE NO. Lybrook 33-8-16 7 EET BEGIN WORK ON HOLE NO. EET TIME FROM ACTIVITY TO 12:00 12:15 Full on location Rig 10 12:15 12:45 61/3" --701 Ø ギフトイ iant for world' meler reading 12:45  $n\psi C$ (water level @ 50' 2:30 Rig down / mave 1:45 Hole! -20' Sandstone GREig Somesandel Shile лE wet SERIAL NO. € 1 1166 BUay Rig FOOTAGE SIZE & MAKE 258 33 Big No. 1/2 Water Meter 3323 10.3 51 CIRCULATION MATERIAL Tax QUAN. 562 25 Total

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### Hydrogeological Report WPX Energy Production, LLC Chaco 2308-04P 149H

### **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 San Juan 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 6,871 feet MSL.

### **General Regional Groundwater Description:**

As a portion of the San Juan Basin, the FFO region 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:

site specific information.	
Surface Hydrology:	The pit is located on hilly terrain with moderate to steep slopes
	to the northwest draining into Kimbeto Wash.
1 <sup>st</sup> Water Bearing Formation:	San Jose, Tertiary
Formation Thickness:	Approximately 1,900 ft.
Underlying Formation:	Nacimiento, Tertiary
Depth to Groundwater:	Depth to groundwater is estimated at less than 100 feet below bottom of pit liner. Within a one-mile radius of this location, there were no iWATERS wells or well data with recorded water depth information. However, a test well was drilled approximately 10,000' away from the Chaco 2308-04P 149H with water depth at 50 feet (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 WOCC. 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;



## 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 closed)	(quai						NE 3=SW b largest)	,	83 UTM in meters)		(In feet	:)
POD Number SJ 01304	POD Sub- Code bàšin C	ounty SJ	×.		4			Rng 08W	263823	<u>( ý</u> 4015987* (?)	Wêli		Water Column
<u>SJ 01334</u>		SJ			2			08W	263823	Ŷ	100 90	40	50
<u>SJ 01709</u> SJ 03978 POD1		SJ SJ	1	•	1 1	27 22	23N 23N	08W 08W	259451 259816		317 500	225 260	92 240
				_	-					Average Depth to Minimum Maximum	Water: Depth:	175 f 40 f 260 f	eet eet
Record Count: 4				• •									94 Per 12 Aur

#### **PLSS Search:**

Township: 23N Range: 08W

\*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.

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 water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)	(qua						NE 3=SW	,	33 UTM in meters)		(in feet)	
POD Number	POD Sub- Code basin C	ounty			Q 5 4		c Twś	Rng	X	Y Y	, • · · · •	Depth Water C	•
SJ 00870		SJ						08W	263248		250		
SJ 00960		SJ	3	3	3	36	24N	08W	262730	4016518* 🕑			
SJ 00960 S		SJ	3	1	3	36	24N	08W	262744	4016920* 🕑			
SJ 00960 S-2		SJ	3	2	3	36	24N	08W	263147	4016909* 🎯			
SJ 00960 S-3		SJ	2	4	3	36	24N	W80	263336	4016707* 🏈			
SJ 02686		SJ	3	4	2	32	24N	08W	257502	4017472* 🔿	690	690	0
										Average Depth to	Water:	690 fe	et
										Minimum	Depth:	690 fe	et
										Maximum	Depth:	690 fe	et
Record Count: 6	• • • • • • • • • • • • • • • • • • •		• •	• •	• •	• •				*********			

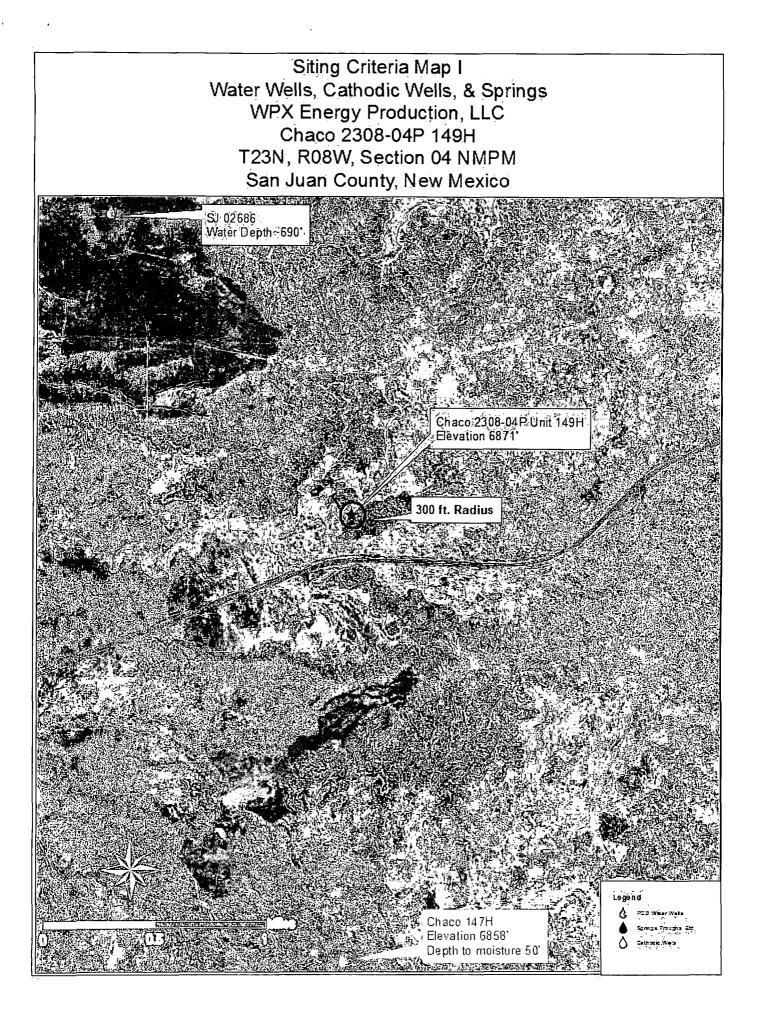
PLSS Search:

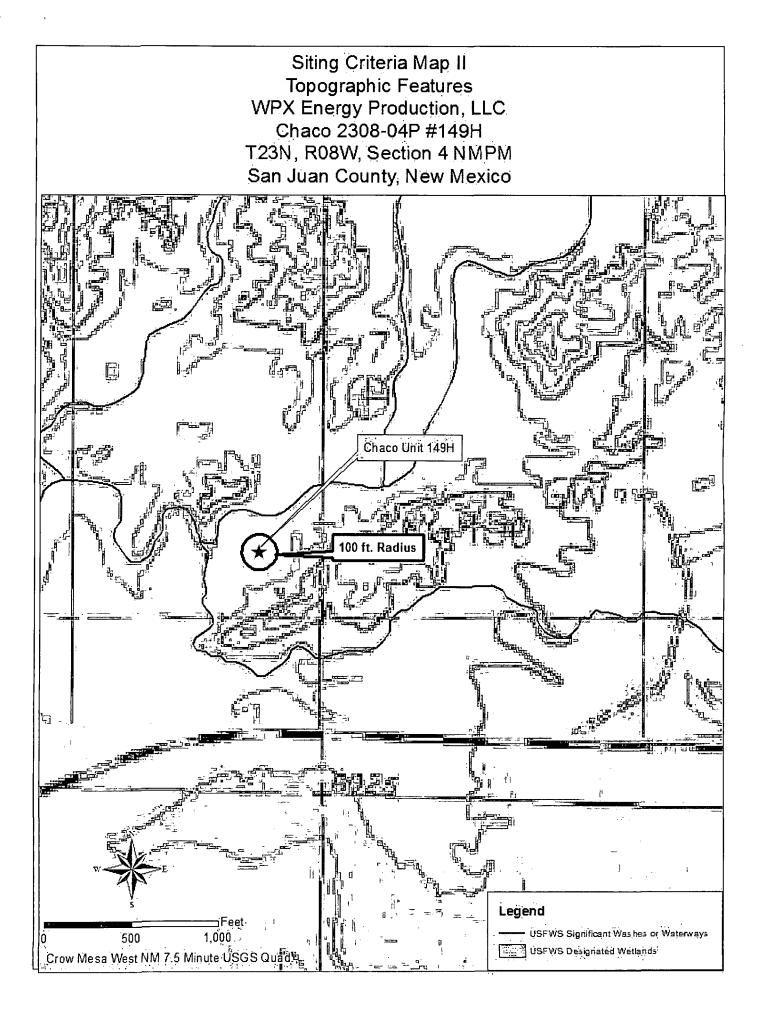
Township: 24N

Range: 08W

\*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.



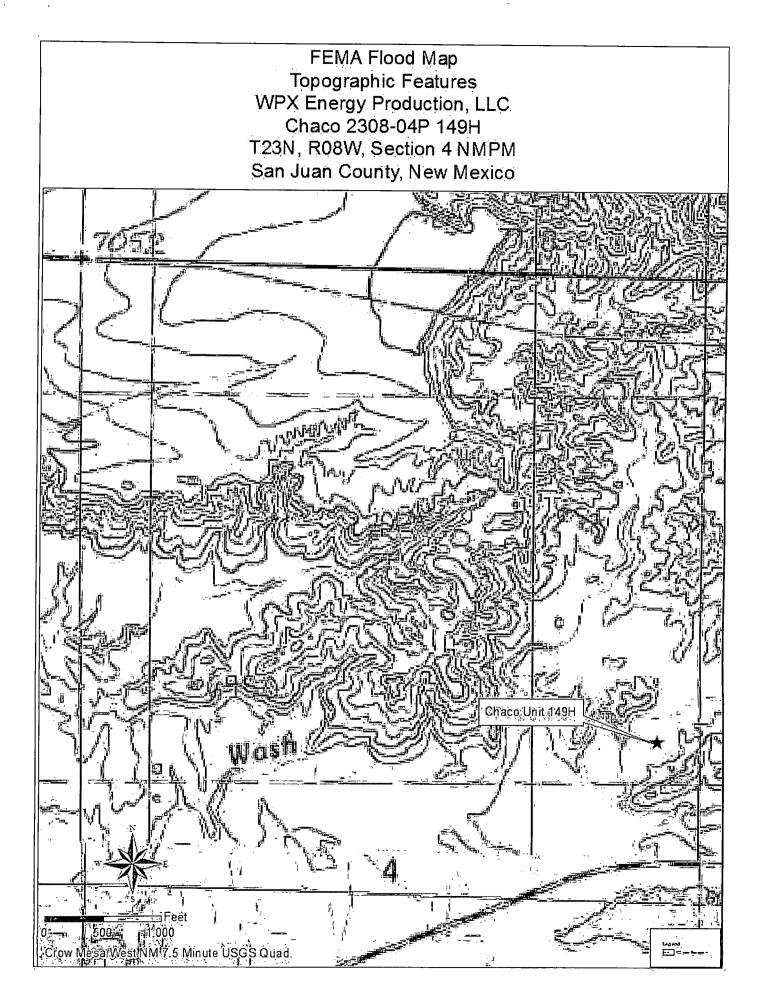


### FEMA Map-100-Year Floodplain:

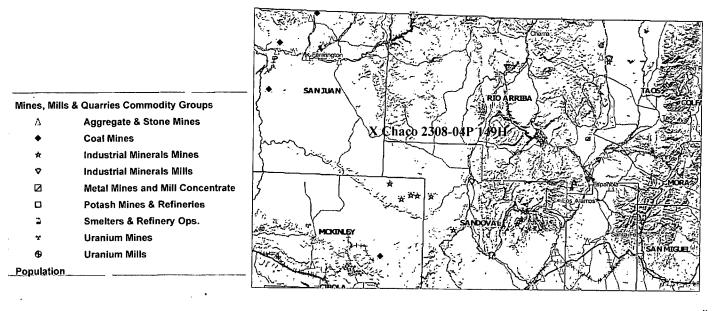
According to FEMA records, this site is not located in a 100-year floodplain (see attached FEMA map).

### Siting Criteria Compliance Demonstrations:

The Chaco 2308-04P 149H 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 300 feet of any private, domestic fresh water well or spring; or within 300 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 300 feet of any permanent residence, school, hospital, institution, or church.



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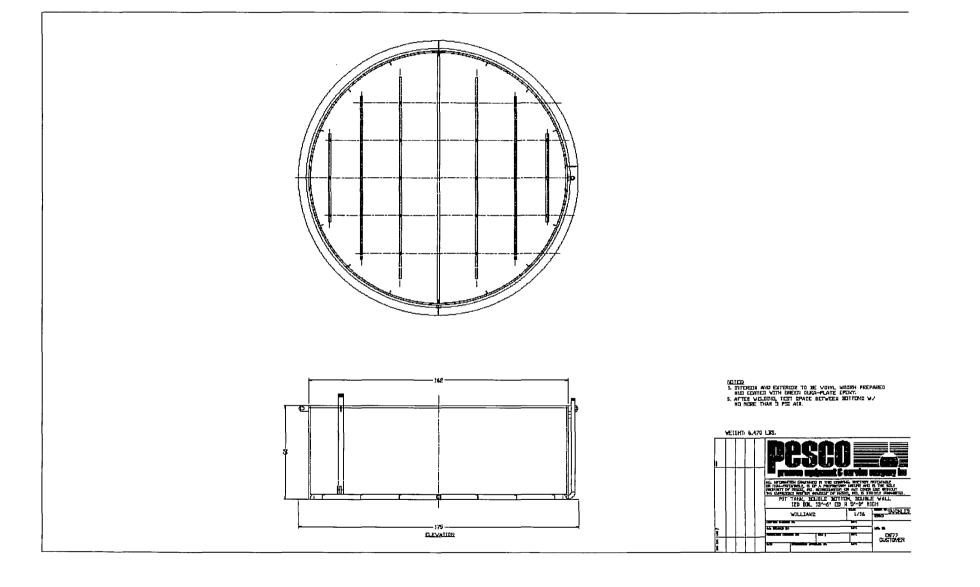
### WPX Energy Co., LLC San Juan Basin: New Mexico Assets Production Pit: Buried Double-Wall Steel Tank Design and Construction Plan

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

General Plan Requirements:

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- 1. WPX will design and construct a production pit to contain liquids associated with the dehydration and compression of produced natural gas, which will prevent contamination of fresh water resources and protect public health and the environment.
- 2. The pit will be located as close as possible to the well and associated production/process equipment to minimize surface disturbance. Prior to excavation for the pit, topsoil will be stripped and stockpiled on the well location.
- 3. The excavation will have a firm compacted bottom and sidewalls that are stable for the soil conditions.
- 4. 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.
- 5. 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.
- 6. 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 pit to allow drainage of liquids not collected during withdrawal operations.
- 7. A solid riser pipe will be installed between the interstitial space of the double-walls to allow monthly inspection to determine tank integrity.
- 8. 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 containment berm.
- 9. A 42 inch tall, 12 gauge coated metal steel 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.
- 10. WPX will post a well sign in accordance with the federal Surface Management Agency and rule 19.15.3.103.



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

### Production Pit: 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 pits using below tanks on WPX Energy Co, LLC (WPX) locations in the San Juan Basin of New Mexico. For those production pits 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 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 19.15.1.7.W (3) NMAC in any temporary pit.
- 2. 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.
- 3. WPX shall maintain sufficient freeboard for to prevent overtopping. Discharges to the pit will be shutoff automatically if the high-level alarm is triggered from the EFM or manually if the EFM is not functional.
- 4. Any oil or hydrocarbon collecting on the pit 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).
- 5. If the tank integrity is compromised:
  - a. All discharges will be shut off to the pit.
  - b. All liquids will be removed as soon as possible but no more that within 24 hours of discovery
  - c. WPX will notify and report to NMOCD as follows:
  - i. If the release is less than 25 bbls, the Aztec District Office by phone or email within 48-hours of discovery and repair.
  - ii. If the release is suspected to be greater than 25 bbls, the Aztec District Office and the Environmental Bureau Chief by phone for immediate verbal notification pursuant to 19.15.3.116.B (1)(d).
  - d. Written Spill/Release reports will be submitted on Form C-141 per 19.15.3.116.C NMAC within 15 days to the Aztec District Office.
- 6. Berms around the perimeter of the pit shall be maintained as protection from runon.
- 7. WPX will inspect the BGT pit monthly. 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.

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

Production Pit: 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 well/pit specific closure plan will be developed and utilized.

### Closure Conditions and Timing:

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Pursuant to 19.15.17.13 (A) NMAC, WPX will initiate closure of any BGT should any one of these conditions occur:

- The Division requires closure because of imminent danger to fresh water, public health or the environment.
- The integrity of the BGT fails. Notification will be within 48 hours to the Division and closure will be schedule as specified in 19.15.17.12 (A)(5) NMAC.
- WPX chooses to take the BGT out-of-service due to operational needs. Closure under these conditions will be closed within 60 days of cessation of the BGT's operation.
- BGTs installed prior to June 16, 2008 that do not meet the requirements under 19.15.17.11.1 (6) NMAC and WPX chooses not to retrofit or upgrade. Closure under these conditions will be completed within five years (by June 16, 2013).

### General Plan Requirements:

- 1. Prior to initiating any BGT Closure except in the case of an emergency, WPX will review County Tax Records for the current surface owner of record. The surface owner of record will be notified of the intent to close the BGT by certified mail 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)
- 3. All piping will be rerouted to an alternative produced water storage/disposal location (e.g. surface tanks, temporary frac tank ...). The well will be temporarily shut in until the rerouting is completed.
- 4. All produced water will be removed from the BGT following discharge-pipe rerouting. 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).
- 5. Solids and sludges will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011).
- 6. 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 paragraph 1 subsection D of 19.15.9.712 NMAC. Disposal will be at a licensed disposal facility, presently San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.

- 7. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure will be removed from the location.
- 8. Following removal of the tank and any liner material, a five-point composite sample will be taken of the excavation and tested per 19.15.17.13(E)(4) NMAC as identified in Table 1. Grab samples will be collected from any area that is wet, discolored or showing other evidence of a release. Results will be reported to the Division following receipt from the lab on Form C-141.

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
<b>≤</b> 50 feet	BTEX	EPA SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

<sup>(1)</sup> Or other test methods approved by the division

- <sup>(2)</sup> Numerical limits or natural background level, whichever is greater (19.15.17.13 NMAC-Ro, 19.15.17.13 NMAC 3/28/2013)
- 9. If the Division and/or WPX determine there is a release, WPX will comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC.
- 10. Upon completion of the tank removal, the excavation will be backfilled with nonwaste 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.

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- 11. For those portions of the former pit area no longer required for production activities, WPX will seed the disturbed areas the first growing season after the pit is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. 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 maintained that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. Note: If a surface owner agreement requires reseeding or other surface restoration that do not meet the re-vegetation requirements of 19.15.17.13.1 NMAC then WPX will submit the proposed alternative with written documentation that the surface owner agrees to the alternative, for Division approval.
- 12. For those portions of the former pit 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
- Site Diagram with coordinates
- Available Inspection reports

- Confirmation Sampling Analytical Results
- Disposal Facility Name(s) and Permit Number(s)
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation