Please be advi environment.

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

2009 APR

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, closed-loop systems, 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

Form C-144

July 21, 2008

Closed-Loop System, Below-Grade Tank, or

Fropo	sed Alternativ	ve Method	Permit of	Closu	ire Pian A	pplication
Type of action: Existing BGT BGT1	Closure of a p Modification Closure plan	oit, closed-loop to an existing p only submitted	system, belo bermit for an existin	w-grade	tank, or propo	sed alternative method osed alternative method rmitted pit, closed-loop system,
_	k, or proposed alter		1.7			
		-			2.787	v-grade tank or alternative request
Please be advised that approval of this re						n of surface water, ground water or the tal authority's rules, regulations or ordinances
1.	operator or na ros	policionity to con-		ner appro-	aore governmen	an adminity 5 tutes, regulations of oldmances
Operator: XTO Energy, Inc.				_ OGRI	D #:	5380
Address: #382 County Road 3	100, Aztec, NM 8741	10				
Facility or well name:Gardner C	:#7A					
API Number: <u>30-045-32052</u>			OCD Permit N	iumber: _		
U/L or Qtr/QtrF Section	26Tow	nship <u>32N</u>	Range	09W	County:	San Juan
Center of Proposed Design: Latitude	e <u>36.957470</u>		Longitude _	107.7	53450	NAD: 🔲 1927 🔀 1983
Surface Owner: ☑ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment						
Pit: Subsection F or G of 19.15.17.11 NMAC						
Temporary: Drilling Workover						
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A						
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other						
String-Reinforced	1110111000	🔲 22201	L IIII	ш. то		
	n. D Other		Volume		hhl Dimon	sions: I w W w D
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D						
Closed-loop System: Subsection H of 19.15.17.11 NMAC						
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)						
☐ Drying Pad ☐ Above Ground	Steel Tanks 🔲 Hauf	l-off Bins 🔲 O	ther			
Lined Unlined Liner type: T	hickness	mil 🔲 L	LDPE HD	PE PV	/C Other	
Liner Seams: Welded Factor			_			
4. Relow-grade tank: Subsection	Lof 19 15 17 11 NM	ΔC				
Below-grade tank: Subsection I of 19.15.17.11 NMAC						
Tank Construction material:	Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: 286					
Secondary containment with leal		do sidowalla lin	a. 6 il. 1:6	-d autom	اءهاکستان ماناه	
☐ Visible sidewalls and liner ☐	_	1		s, vauited,	automatic nigr	i-level shut off, no liner
Liner type: Thickness	mil H	DPE PVC	Uther			
5.						
Alternative Method:						
Submittal of an exception request is	required. Exceptions	must be submit	ted to the Sant	a Fe Envir	ronmental Bure	au office for consideration of approval.
Form C-144		Oil Conso	ervation Divisi	on		Page 1 of 5

of 29	6.		-				
2 of	Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)						
Page	Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school institution or church)	hospital,					
1	Four foot height, four strands of barbed wire evenly spaced between one and four feet						
	□ Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing						
ĺ	7.						
	Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) ☐ Screen ☐ Netting ☒ Other Expanded metal or solid vaulted top						
	Monthly inspections (If netting or screening is not physically feasible)						
1	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						
	☑ Signed in compliance with 19.15.3.103 NMAC						
	9. Administrative Approvals and Exceptions:						
	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank:						
	Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval.	office for					
	Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.						
Ì	10. 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 acce						
	material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approfice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a	ipproval.					
	Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	ing pads or					
	Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ⊠ N	lo				
	Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa	│ │ Yes 図 N	lo				
	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.	☐ Yes ⊠ N	lo				
	(Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□ NA					
	Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ N	lo				
	(Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	⊠ NA					
	Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	☐ Yes ⊠ N	lo				
	watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - 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	☐ Yes ⊠ N	o				
	adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality		M				
AM	Within 500 feet of a wetland.	☐ Yes 🛭 N	Released to Imaging: 9/19/2022 3:50:51 PM				
6:15:11	- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		3:50:				
	Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☑ N	022.3				
2022	Within an unstable area.	☐ Yes ⊠ N	0 8				
/15/	 Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 		6: 6				
J. C.	Within a 100-year floodplain FEMA map	☐ Yes ⊠ N	o id				
Received by OCD: 9/15/2022	· · · · · · · · · · · · · · · · · · ·						
ved b			sed to				
ecein	Form C-144 Oil Conservation Division Page 2 of 5		eleas				
×			~				

2	
Page 3 of 29	Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment 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 (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 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
	Closed-loop Systems Permit Application Attachment 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. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC 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 Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: (Applies only to closed-loop system that use
	above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
177.00	13.
22 6:15:11 AM	Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Receiv	Form C-144 Oil Conservation Division Page 3 of 5

facilities are required. Disposal Facility Name: Disposal Facility Permit Number:	
Disposal Facility Name: Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future services (If yes, please provide the information below) \(\bigcap \) No	vice and operations?
Required for impacted areas which will not be used for future service and operations: 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 I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	C
7. 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 may require administrative approval from the appropriate distructions of acceptable sour siting criteria may require administrative approval from the appropriate distructions of acceptable which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
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 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa ake (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 private, domestic fresh water well or spring that less than five households use for domestic or stock vatering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance idopted 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ 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
Vithin an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Vithin a 100-year floodplain FEMA map	Yes No
Dn-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 F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 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 Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC 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 G of 19.15.17.13 NMAC	15.17.11 NMAC
Form C-144 Oil Conservation Division Page 4 of	75

Name (Print): Kim Champlin	Title	Environmental Representative
IL. About		
		03/04/2009
e-mail address: kim_champlin@xtoenergy.com	Telephone:	(505) 333-3100
20. OCD Approval: X Permit Application (including clos	sure plan) Closure Plan (only) CO	D Conditions (see attachment)
OCD Representative Signature: <u>Jaclyn Burd</u>	line	Approval Date:09/19/2022
Title: Environmental Specialist-A	OCD Permit Nur	mber: BGT1
21. <u>Closure Report (required within 60 days of closure co</u> Instructions: Operators are required to obtain an appro The closure report is required to be submitted to the divi section of the form until an approved closure plan has b	oved closure plan prior to implementing any vision within 60 days of the completion of th	y closure activities and submitting the closure report. e closure activities. Please do not complete this e been completed.
22.		
Closure Method: Waste Excavation and Removal On-Site Closur If different from approved plan, please explain.	re Method	d Waste Removal (Closed-loop systems only)
13. Closure Report Regarding Waste Removal Closure Foundary Instructions: Please indentify the facility or facilities for two facilities were utilized.		
Disposal Facility Name:	Disposal Facility	Permit Number:
Disposal Facility Name:	Disposal Facility	Permit Number:
Were the closed-loop system operations and associated at Yes (If yes, please demonstrate compliance to the i		ot be used for future service and operations?
Required for impacted areas which will not be used for fu Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Tech	·	
Closure Report Attachment Checklist: Instructions: Imark 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) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applimants waste Material Sampling Analytical Results (required Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Tech Site Reclamation (Photo Documentation) On-site Closure Location: Latitude	on)) licable) nired for on-site closure) hnique	
S.		
Operator Closure Certification: hereby certify that the information and attachments subrelief. I also certify that the closure complies with all appropriate the control of the control o		
Name (Print):	Title:	
	Date:	
Signature:		
Signature:	Telephone: _	
	Telephone: _	

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DESTRUCT I P.O. Box 1980, Hobbs, N.M. 58241-1980

,611 South First, Artesia, N.M. 88210

DISTRICT III

1000 Rio Brazos, Rd., Astec, N.M. 87410 DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico Energy, Minerals & Natural Resources Department

> OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, NM 87504-2088

Form C-102 Revised Febuary 21, 1994 Instructions on back

Submit to Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-04	S	2050		7/629	7	Basin F	withand	Coal	
Property (ode	333	-		Property GARDN	Hame			Vall Number 7A
1280°					Operator KOCH EXPL				* Elevation 6632
					10 Surface	Location			
OL or lot no.	Section 26	Township 32 N	Range 9 W	Lot Idn	Feet from the	NORTH	Feet from the	East/Vest line WEST	County SAN JUAN
			" Botte	om Hole	Location I	f Different Fro	om Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Peet from the	East/West line	County
Dedicated Acre 3/9.08	5		Consolidatio		rder No.	ON FINDING AVE	NIMED DOMO I	IAME DEGAL	CONCOL ID ATTER

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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A			Client:	XTO Energy
Lodestar Service	es, luc.	Pit Permit	Project:	Pit Permits
70 Bez 4465, Duran	n, CO 81302	Siting Criteria	Revised:	2-Mar-09
V			Prepared by:	Brooke Herb
API#:		30-045-32052	USPLSS:	T32N,R09W,S26F
Name:		Gardner C #7A	Lat/Long:	36.957470; -107.753450
Depth to groundwater:		50' - 100'	Geologic formation:	San Jose Formation
Distance to closest continuously flowing watercourse:		es W of Los Pinos River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	Box Canyor	f Rawhide Canyon; 975' W of n; 2860' E of a Playa Lake; 380' evaporation pond; 1925' W of Devil's Washpan		
			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No		
			Annual Precipitation:	12.95 inches (Navajo Dam)
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	no significant precip events
Any other fresh water well or spring within 1000'	No - 1383	1' NE of Rawhide Spring		
Within incorporated municipal boundaries		No	Attached Documents:	Groundwater report and Data; FEMA Flood Zone Map
Within defined municipal fresh water well field		No		Aerial Photo, Topo Map, Mines Mills and Quarries Map
Wetland within 500'		No	Mining Activity:	
Within unstable area		No		None Near
Within 100 year flood plain	No - F	EMA Flood Zone 'X'		
Additional Notes:				
				1490' E of a cleared area for agriculture/ Livestock

Gardner C #7A Below Ground Tank Siting Criteria and Closure Plan

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the north central San Juan Basin near Navajo Lake. The predominant geologic formation is the San Jose Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur near the surface of the area, especially near streams and washes.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). In most of the proposed area, the San Jose Formation lies at the surface and overlies the Nacimiento Formation. Thickness of the San Jose ranges from 200 to 2700 feet, thickening from west to east across the region of interest (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the San Jose Formation are between 0 and 2700' deep in this section of the basin (Stone et al., 1983). Groundwater within these aguifers flows southwest, toward the San Juan River. Little specific hydrogeologic data is available for the San Jose Formation system, but "numerous wells and springs used for stock and domestic supplies" draw their water from the San Jose Formation (Stone et al, 1983).

The prominent soil type(s) at the proposed site are entisols and aridisols, which are defined as soils exhibiting little to no profile development (www.emnrd.state.nm.us). Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the San Juan River. These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Regional weather further prohibit active recharge. The climate is arid, averaging just over 11 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from July through September. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. September through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

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Site Specific Hydrogeology

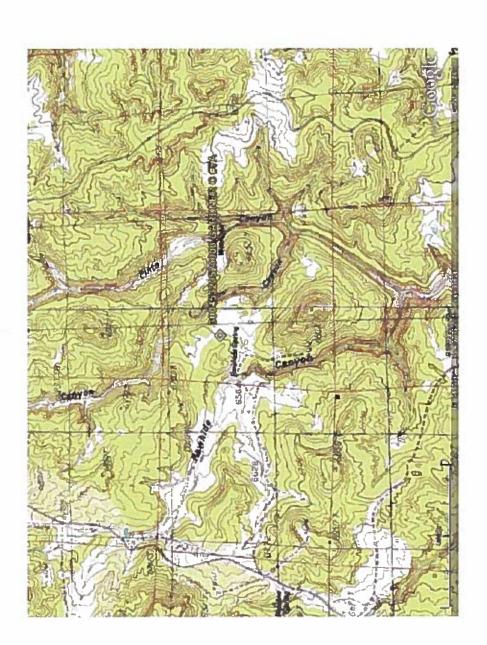
Depth to groundwater is estimated to be between 50 feet and 100 feet. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography, proximity to adjacent channels & spring features at similar elevations nearby are also taken into consideration. Groundwater data is extremely limited in this region; the nearest iWaters data point lies 375 feet east (SP 045231); this source is an evaporation pond. The closest water well is 1.28 miles to the west-northwest (SJ 03131).

Beds of water-yielding sandstone are present in the San Jose Formation, which are fluvial in origin and are interbedded with mudstone, siltstone & shale. "Extensive intertonguing" of different members of this formation is reported (Stone et al, 1983). Porous sandstones form the principal aquifers, while relatively impermeable shales and mudstones form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the San Jose Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to several hundred feet (USGS, Groundwater Atlas of the US; Stone et al, 1983).

A site visit to this location determined that there is a playa lake approximately 2860 feet to the west of the site. Within the cleared area of the playa lake, there are vegetated patches and some man-made berms for stock ponds. Approximately 1490 feet to the west of the below grade tank site there is an area cleared for agriculture or livestock. Approximately 1925 feet to the east is a drainage basin named Devil's Washpan.

Groundwater data available from the NM State Engineer's iWaters Database for wells near the existing below grade tank are attached. A water well to the northwest is approximately 95 feet higher in elevation then the proposed site. Depth to groundwater within the well is 580 feet below ground surface. The below grade tank is located 1381 feet to the northeast of Rawhide Spring and is approximately 60 feet higher in elevation. Due to the close proximity of the spring, a conservative estimate for groundwater depth is between 50 feet and 100 feet below ground surface.

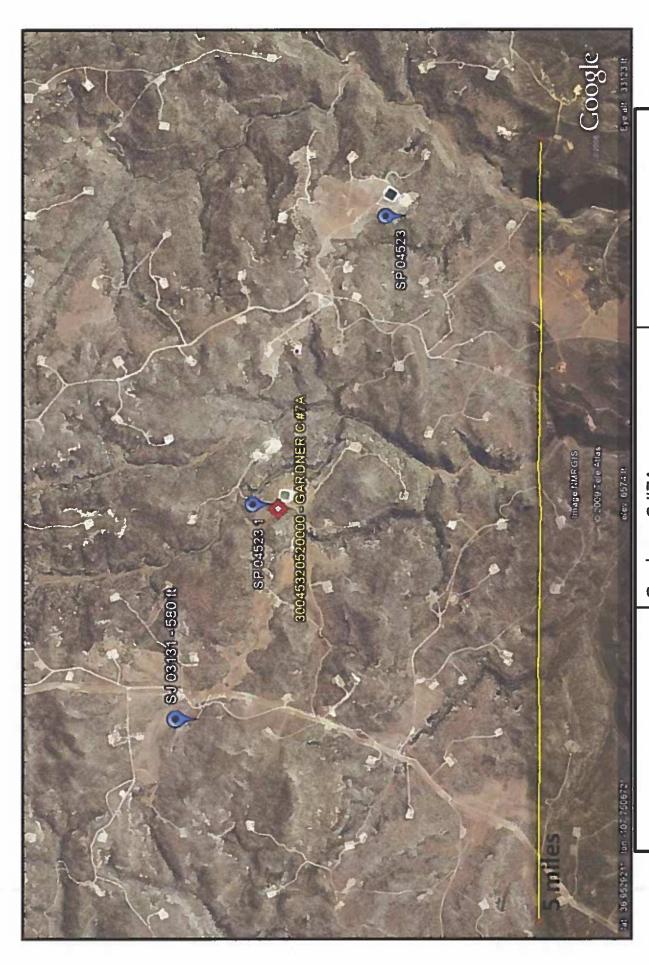
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Lodestar Services, Inc. | Gardn PO Box 4465 Durango, CO 81302 | San Ju

Gardner C #7A T32N, R09W, S26F San Juan County, NM

Topographic Map



Lodestar Services, Inc
PO Box 4465
Durango, CO 81302
Cardner C #7A
T32N, R09W, S26F
San Juan County, NM

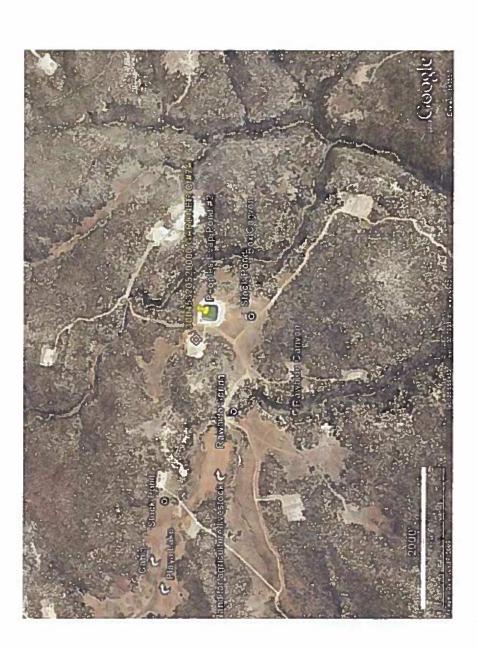
| iWaters Groundwater | Data Map





Water Column/Average Depth to Water

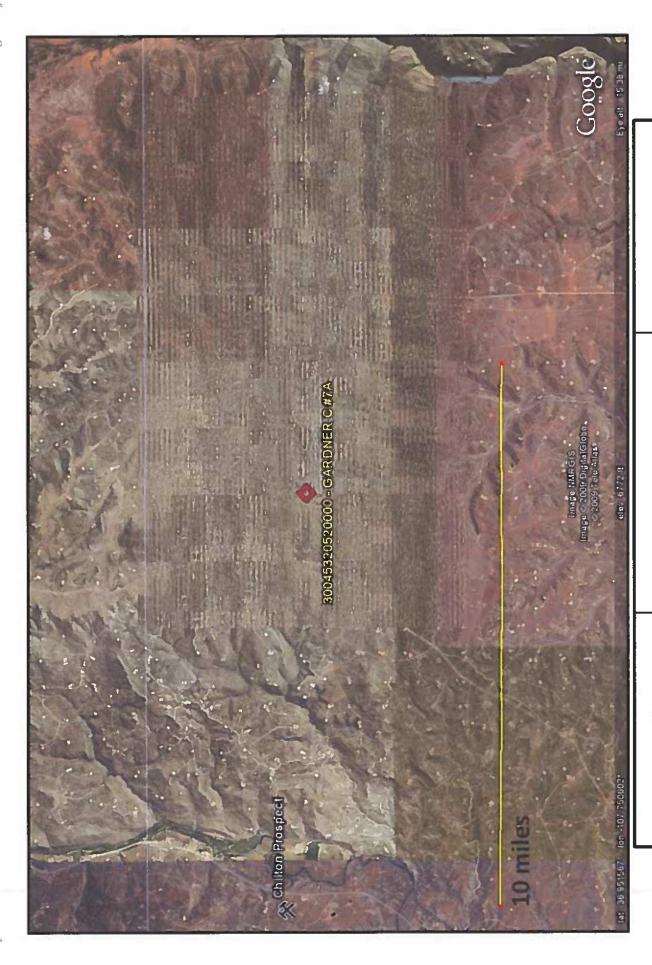
POD Number	Q County 64		Sec	Q Q 16 4 Sec Tws Rng	Rng	×	YDe	pthWellDel	Water V DepthWellDepthWater Column	Water
SJ 03131	San Juan	3 3 3	22	32N	3 3 22 32N 09W	252963	252963 4094453	843	580	263
Record 1 Count:						-4	Average Depth to Water. Minimum Depth:	Water. n Depth:	580 feet 580 feet	
							Maximum Depth:	a Depth:	580 feet	



Lodestar Services, Inc. PO Box 4465 Durango, CO 81302

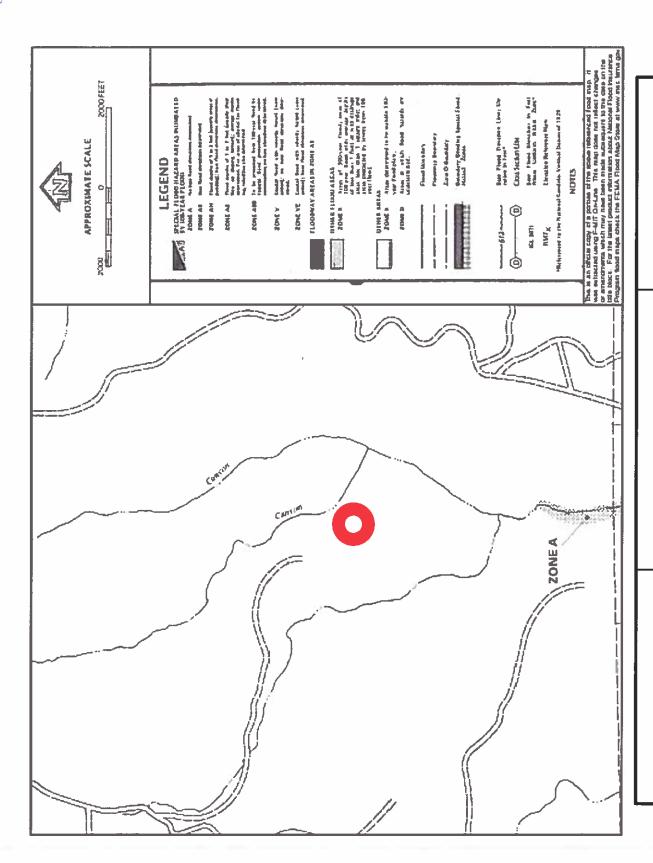
Gardner C #7A T32N, R09W, S26F San Juan County, NM

Aerial Photo



Lodestar Services, Inc
PO Box 4465
Durango, CO 81302
San Juan County, NM

Mines, Mills, and Quarries Map



Lodestar Services, Inc
PO Box 4465
Durango, CO 81302
San Juan County, NM

FEMA Flood Zone Map

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Design and Construction Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.11 NMAC the following information describes the design and construction of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

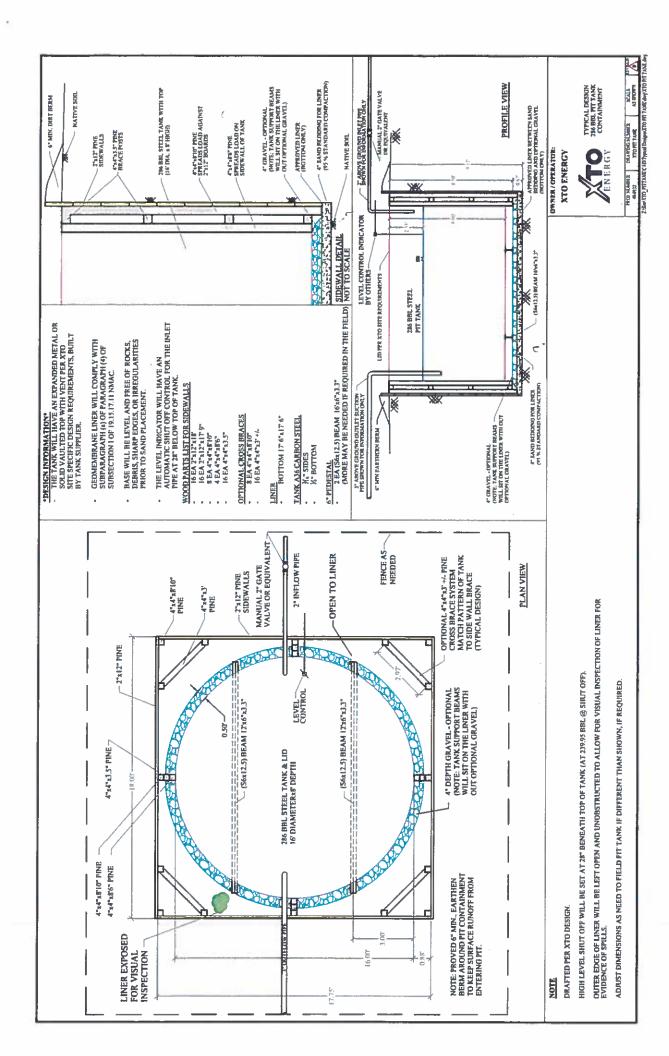
- 1. XTO will design and construct below-grade tanks to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
- 2. XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the existing well site operated by XTO where the existing below-grade tank is located. The sign will list the Operator on record as the operator, the location of the well site by unit letter, section, township, range, and emergency telephone numbers.
- 3. XTO is requesting approval of an alternative fencing to be used on below-grade tank locations. Below-grade tank locations will be fenced utilizing 48" steel mesh field-fence (hogwire) with pipe railing along the top. A 6' chain link fence will be utilized around the well pad if the well site is within a city limits or ¼ mile of a permanent residence, school, hospital, institution or church. Below-grade tanks located within 1000' of a permanent residence, school, hospital, institution or church will be fenced by 6' chain link fence with at least two strands of barbed wire at the top. All gates associated with below-grade tanks will remain closed and locked when responsible individuals are not on site.
- 4. XTO shall construct below-grade tanks with an expanded metal covering or solid vaulted top on the top of the below-grade tank.
- 5. XTO will ensure that below-grade tanks are constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight. Tanks will be constructed of A36 carbon steel with 3/16" sides and 1/4" bottom. (See attached drawing).
- 6. The below-grade tank system will 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. Sand bedding (4") will be placed on top of a level foundation to ensure prevention of punctures, cracks or indentations of the liner or tank bottom.
- 7. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on. Below-grade tanks will be equipped with automatic high level shut-off devices as well as manually operated shut-off valves. (See attached drawing).
- 8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

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San Juan Basin (Northwest New Mexico)
General Design and Construction Plan
For Below-Grade Tanks
Page 2

bottom will be elevated a minimum of 6" above the underlying ground surface and the belowgrade tank will be underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected. (See attached drawing).

- XTO will equip below-grade tanks designed in this manner with a properly functioning automatic high-level shut-off control device and manual controls to prevent overflows. (See attached drawing).
- 10. XTO will demonstrate to the OCD that the geomembrane liner complies with the specifications of Subparagraph (a) of Paragraph (4) of Subsection I of 19.15.17.11 NMAC and obtain approval from OCD prior to the installation of the design. The geomembrane liner shall have a hydraulic conductivity no greater than 1 x 10-9 cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidics and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A. (See attached drawing).
- 11. The general specifications for design and construction are attached.



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XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Maintenance and Operating Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.12 NMAC the following information describes the operation and maintenance of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

- 1. XTO will operate and maintain below-grade tanks to contain liquids and solids, maintain the integrity of the liner and secondary containment system, prevent contamination of fresh water and protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of below-grade tank systems and below-grade tanks will be equipped with automatic high-level shut-off devices.
- 2. XTO will not allow below-grade tanks to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the below-grade tank. Below-grade tanks will be equipped with automatic high-level shut-off control devices as well as manually operated shut-off valves. See attached drawing for vault design and placement of diversion berms and shut-off devices.
- 3. XTO will continuously remove any visible or measurable layer of oil from the fluid surface of below-grade tanks in order to prevent significant accumulation of oil.
 - 4. XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template),

Well Name

API#

Sec., Twn., Rng.

XTO Inspector's name

Inspection date and time

Visible tears in liner

Visible signs of tank overflow

Collection of surface run on

Visible layer of oil

Visible signs of tank leak

Estimated freeboard

- 5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
- XTO will not discharge into or store any hazardous waste in any below-grade tank.
- 7. If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

XTO Energy Inc.
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General Maintenance and Operating Plan
For Below-Grade Tanks
Page 2

notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the below-grade tank. If an existing below-grade tank does not meet current requirements of Paragraphs 1-4 of Subsection I of 19.15.17.11 NMAC the tank will be modified or retrofitted to comply. If compliance can not be achieved XTO will implement the approved closure plan.

		MONTH	ILY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	NSPECTIO	N FORM		
Well Name:					API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	Inspection	Any visible liner	Any visible signs of	Collection of surface	Visible layer	Any visible signs	Freeboard
	200		(cals (rin)	Cally Cocilions (1714)		01011 (1718)	מומוא וכפא (נווא)	E3t. (III)
7,								
				*				
		12						
Notes:	Provide De	Provide Detailed Description:	ption:					
Misc:								
	1							

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Closure Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

- 1. XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- 2. XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
- 3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144.
- 4. XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B Soil contaminated by exempt petroleum hydrocarbons Produced sand, pit sludge and contaminated bottoms from storage of exempt wastes

Basin Disposal Permit No. NM01-005 Produced water

- 5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office has approved prior to removal. Any associated liners will be removed, properly cleaned and disposed of per 19.15.9.712 NMAC at San Juan County Landfill. Documentation of the final disposition will be included in the closure report.
- XTO will remove any on-site equipment associated with a below-grade tank unless the equipment 6. is required for some other purpose.
- 7. XTO will test the soils beneath the below-grade tank to determine whether a release has occurred. At a minimum 5 point composite sample will be collected along with individual grab samples from any area that is wet, discolored or showing other evidence of a release. Samples will be

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XTO Energy Inc.
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analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. XTO will notify the division of its results on form C-141.

- 8. If XTO or the division determines that a release has occurred, XTO will comply with 19.15.3.116 NMAC and 19.15.1.19NMAC as appropriate.
- 9. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, XTO will backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; recontour and re-vegetate the site.
- 10. Notice of Closure operations will be given to the Aztec Division District III office between 72 hours and one week prior to the start of closure activities via email or verbally. The notification will include the following:
 - i. Operator's name
 - ii. Well Name and API Number
 - iii. Location by Unit Letter, Section, Township, and Range

The surface owner shall also be notified prior to the implementation of any closure operations of below-grade tanks as per the approved closure plan using certified mail, return receipt requested.

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area.

 Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Closure Plan For Below-Grade Tanks Page 3

- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
 - i. Proof of closure notice to division and surface owner;
 - ii. Details on capping and covering, where applicable;
 - iii. Inspection reports;
 - iv. Confirmation sampling analytical results;
 - v. Disposal facility name(s) and permit number(s);
 - vi. Soil backfilling and cover installation;
 - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 143534

QUESTIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	143534
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

QUESTIONS

Facility and Ground Water	
Please answer as many of these questions as possible in this group. More information will help us id	dentify the appropriate associations in the system.
Facility or Site Name	GARDNER C 7A
Facility ID (f#), if known	Not answered.
Facility Type	Below Grade Tank - (BGT)
Well Name, include well number	GARDNER C 7A
Well API, if associated with a well	3004532052
Pit / Tank Type	Not answered.
Pit / Tank Name or Identifier	Not answered.
Pit / Tank Opened Date, if known	Not answered.
Pit / Tank Dimensions, Length (ft)	Not answered.
Pit / Tank Dimensions, Width or Diameter (ft)	Not answered.
Pit / Tank Dimensions, Depth (ft)	Not answered.
Ground Water Depth (ft)	Not answered.
Ground Water Impact	Not answered.
Ground Water Quality (TDS)	Not answered.

Below-Grade Tank	
Subsection I of 19.15.17.11 NMAC	
Volume / Capacity (bbls)	286
Type of Fluid	Produced Water
Pit / Tank Construction Material	Steel
Secondary containment with leak detection	Not answered.
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Not answered.
Visible sidewalls and liner	Not answered.
Visible sidewalls only	Not answered.
Tank installed prior to June 18. 2008	True
Other, Visible Notation. Please specify	Not answered.
Liner Thickness (mil)	Not answered.
HDPE (Liner Type)	Not answered.
PVC (Liner Type)	Not answered.
Other, Liner Type. Please specify (Variance Required)	Not answered.

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QUESTIONS, Page 2

Action 143534

OUEST	IONS (continued)
Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID:
QUESTIONS	
Fencing	
Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tank	(S)
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)	Not answered.
Four foot height, four strands of barbed wire evenly spaced between one and four feet	Not answered.
Alternate, Fencing. Please specify (Variance Required)	4' hogwire
Netting Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen	Not answered.
Netting	Not answered.
Other, Netting. Please specify (Variance May Be Needed)	expanded metal or solid vaulted top
Signs	
Subsection C of 19.15.17.11 NMAC (If there are multiple operators at a site, each operator must have 12"x 24", 2" lettering, providing Operator's name, site location, and emergency	
telephone numbers	Not answered.
Signed in compliance with 19.15.16.8 NMAC	True
Variances and Exceptions	
Variances and Exceptions Justifications and/or demonstrations ofequivalency are required. Please refer to 19.15.17 NMAC for Please check a box if one or more of the following is requested, if not leave blank:	guidance.
Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	Not answered.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for	Not answered.

consideration of approval

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QUESTIONS, Page 3

[C-144] Legacy Below Grade Tank Plan (C-144LB)

Action 143534

QUESTIONS (continued)	
Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	143534
	Action Type:

QUESTIONS

X
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. Siting criteria does not apply to drying pads or above-grade tanks.

Siting Criteria, General Siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank	No
NM Office of the State Engineer - iWATERS database search	True
USGS	Not answered.
Data obtained from nearby wells	Not answered.

Siting Criteria, Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lakebed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark)	Not answered.
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption	Not answered.

roposed Closure Method	
Below-grade Tank	Below Grade Tank - (BGT)
Waste Excavation and Removal	True
Alternate Closure Method. Please specify (Variance Required)	Not answered.

Operator Application Certification	
Registered / Signature Date	03/04/2009

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ACKNOWLEDGMENTS

Action 143534

ACKNOWLEDGMENTS

Operator:	OGRID:
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Houston, TX 77002	143534
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

ACKNOWLEDGMENTS

I acknowledge that I have received prior approval from the OCD to submit documentation of a legacy below-grade tank on behalf of my operator.	
I hereby certify that the information submitted with this documentation is true, accurate and complete to the best of my knowledge and belief.	

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CONDITIONS

Action 143534

CONDITIONS

Operator:	OGRID:
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1111 Travis Street	Action Number:
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	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

CONDITIONS

Created By		Condition Date
jburdine	None	9/19/2022