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

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 District Office.

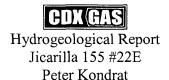
1042								
	Proposed Alternative Method Permit or Closure Plan Application Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non permitted pit, closed loop system							
	Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method							
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request								
		quest does not relieve the operator of its res						
		uilding K, Suite #1_						
		ntract 155 #022E						
		tion31						
		36.44059			107.4042		NAD: 🔲	1927 🛛 1983
Surface Owner:	Federal State	☐ Private ☑ Triba	l Trust or Indian	Allotment				
2.	on F or G of 19.15	17 11 NMAC					RCVD SEP	12 '08
Temporary: D							OIL CONS.	
	Emergency 🔲 Ca						DIST.	
		Thickness	mıl 🗌 LLD	PE HDPE	□ PVC □ Otl	ner		
String-Reinford								
Liner Seams:	Welded Factor	y Other		Volume:	bbl	Dimensions: L_	x W	x D
		on H of 19.15.17.11 l		rillıng (Applies	to notivities why	ah raquira prior ar	proval of a por	nit or notice of
intent)	. LI WA LI DIII	illing a new wen	WOIKOVEI OI DI	inning (Applies	to activities with	on require prior ap	provar or a peri	int of notice of
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other								
☐ Lined ☐ Unlir	ed Liner type: The	hickness	mil 🔲 L	LLDPE 🗌 HDI	PE PVC	Other		
Liner Seams:	Welded Factory	y Other						
4.								
		I of 19.15.17.11 NM						
		of fluid:		iter				
		Steel		6 1 1 10	1	0 1		
 □ Secondary containment with leak detection □ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off □ Visible sidewalls and liner □ Visible sidewalls only □ Other □ See closure plan 								
		mil				ha alacad par nav	rulo	
	1033		IDLE TLAC	M Other Delo	w grade talik to	- cioscu pei new	rule	
5. Alternative M	ethod:							
		equired. Exception	s must be submi	itted to the Santa	ı Fe Environmen	tal Bureau office	for consideratio	n of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify_Four foot hog wire					
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)					
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					
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. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for				
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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district pproval.				
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 ⊠ No				
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 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ⊠ No ☐ NA				
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal 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	☐ 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 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				
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				

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: API Number: API Number: 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)						
13.						
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 H ₂ S, Prevention Plan Emergency Response Plan Dil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan Dil Field 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 Closed-loop System Alternative 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)						
Waste Excavation and Removal 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. ☐ 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 ☐ 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 G of 19.15.17.13 NMAC ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC						

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two 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 service and operations? Yes (If yes, please provide the information below) No					
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					
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 source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.					
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				
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 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 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; 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 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				
 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. Please indicate, 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 Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC					

Operator Application Certification: I hereby certify that the information submitted with this application is true.	ue, accurate and c	omplete to th	ne best of my knowledge and belief.
Name (Print):Lee Gardner			
Signature: 320 Devel	1	Date: <u>\$</u>	-88-08,
e-mail address:lee.gardner@cdxgas.com	Tele	phone:	_505-324-5427
OCD Approval: Permit Application (including closure plan)			
OCD Representative Signature: Branche Sell			Approval Date: 2-2-09
Title: Enviro/spec	OCD I	ermit Numb	ber:
Closure Report (required within 60 days of closure completion): Sub- Instructions: Operators are required to obtain an approved closure plan The closure report is required to be submitted to the division within 60 a section of the form until an approved closure plan has been obtained an	n prior to implen days of the compl nd the closure act	enting any cletion of the divities have l	closure activities and submitting the closure report. closure activities. Please do not complete this
Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Alternative Clos	ure Method	☐ Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop S	Systems That Ut	ilize Above (Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please indentify the facility or facilities for where the liqu	iids, drilling fluid	ls and drill c	cuttings were disposed. Use attachment if more than
two facilities were utilized.	~.		
Disposal Facility Name:			ermit Number:
Disposal Facility Name:			ermit Number:
Were the closed-loop system operations and associated activities performed Yes (If yes, please demonstrate compliance to the items below)	ed on or in areas No	that <i>will not</i> l	be used for future service and operations?
Required for impacted areas which will not be used for future service and	l operations:		
☐ Site Reclamation (Photo Documentation) ☐ Soil Backfilling and Cover Installation			
Re-vegetation Application Rates and Seeding Technique			
24. Closure Report Attachment Checklist: Instructions: Each of the following the control of the	owing items mus	he attached	I to the closure report. Please indicate, by a check
mark in the box, that the documents are attached.	g		to the creame reports a reason material, by a cream
Proof of Closure Notice (surface owner and division)			
☐ Proof of Deed Notice (required for on-site closure) ☐ Plot Plan (for on-site closures and temporary pits)			
Confirmation Sampling Analytical Results (if applicable)			
Waste Material Sampling Analytical Results (required for on-site c	losure)		
☐ Disposal Facility Name and Permit Number ☐ Soil Backfilling and Cover Installation			
Re-vegetation Application Rates and Seeding Technique			
Site Reclamation (Photo Documentation)	T 10 1		NAD []1027 [] 1022
On-site Closure Location: Latitude	Longitude		NAD: 1927 1983
25. Operator Closure Certification:			
I hereby certify that the information and attachments submitted with this could belief. I also certify that the closure complies with all applicable closure results.			
Name (Print):	•	•	
Signature:		Date:	
e-mail address:	Те	lephone:	



CDX Gas, LLC Tapicito Project Jicarilla Apache Nation, San Juan Basin

Jicarilla Contract 155 #022E

Below Grade Tank

Well API: 30-039-22088

TWP: 26 N - Range: 5 W - Sec. 31; 1670 FSL 1645 FWL

Siting Criteria Compliance

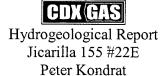
- > Ground water is not less than 50 feet below the bottom the subject location
- The subject location is not within 300 feet of a continuously flowing watercourse.
- The subject location is <u>not</u> within 200 feet of any significant watercourse, lakebed, sinkhole or playa lake
- The subject location is <u>not</u> within 300 feet of a known permanent residence, school, hospital, institution or church
- The subject location is <u>not</u> within 500 feet of any known private domestic fresh water well or 1000 feet of any other fresh water well spring
- The subject location is <u>not</u> within any known incorporated municipal boundary
- The subject location is not within 500 feet of a known wetland
- > The subject location is not within a known unstable area
- The subject location is not within a known 100 year flood plain
- The subject location is not over any known subsurface or surface mine

Regional Geologic Setting

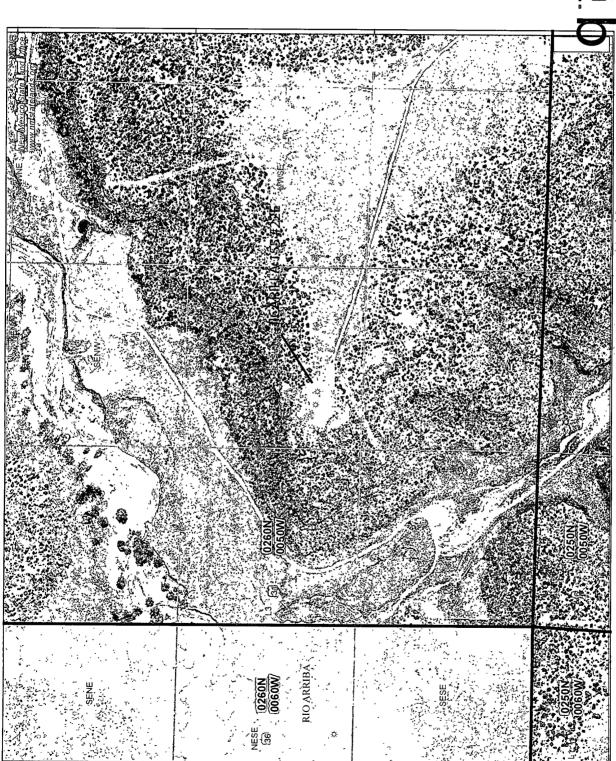
At CDX's Tapicito Project located in the eastern-central portion of the San Juan Basin, within the Jicarilla Apache Indian Nation, the San Jose Formation outcrops and forms the surface landscape.

The San Jose Formation outcrops in the eastern-northeastern portion and covers ~1/6th of the San Juan Structural Basin. The San Jose Formation overlies the Nacimiento Formation in the area generally south of the CO-NM state line, and overlies the Animas Formation in the area generally north of the CO-NM state line (Fassett, 1974, p. 229). The basal contact of the San Jose varies with location in the basin. This contact is a disconformity along the basin margins, and it is an angular unconformity along the Naciemento Uplift; the contact is conformable in the central basin (Baltz, 1967, p. 54; Fassett, 1974 p. 229).

The Eocene-aged San Jose Formation was deposited in various fluvial-type environments (Baltz, 1967, p 44-45) and consists of interbedded sequence of sandstone, siltstone and shale. The sandstone are buff to yellow and rusty-colored, crossbedded, very fine to coarse-grained arkose, which are locally conglomeratic and contain abundant silicified wood (Baltz, 1967, p. 46; Fassett, 1974, p 229; Anerholm, 1979, p. 23).



Thickness of the San Jose Formation generally increases from west to east. Fassett (1974, p 229) reported a maximum thickness if 2,400 feet in the east-central part of the basin, and Stone and other (1983, p. 25) reported a range of from about 200 feet in the west and south to almost 2,700 feet in the center of the structural basin.



Oil, Gas, and Minerals Land/Lease Information Map New Mexico State Land Office 0 0 0 0 0 0 5 0 0 5

Universal Transverse Mercator Projection, Zone 13 1983 North American Datum

The New Mexico State Land Office assumes no responsibility or liability fo or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer

Land Office Geographic Information Center

Created On 8/22/2008 9 41-53 AM

- (County Seats
- SLO District Offices
- fl(City, Town or Village
- k Volcanic Vents

NMOCD Oil, Gas Wells

- ⇔ Carbon Dioxide ⇔ Gas
 - o Injection
- Miscellaneous
- Oil
 Salt Water Disposal
 Water
 Water

Federal Subsurface Ownership

- All Minerals Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only

Other Minerals 8

State Trust Lands Ownership

Subsurface Estate Surface Estate

Both Estates

Commercial Leases State Lease Types









Oil, Gas Leasing Influenced By Restriction

Not Available for Oil, Gas Leasing

- - Continental Divide Other Boundaries

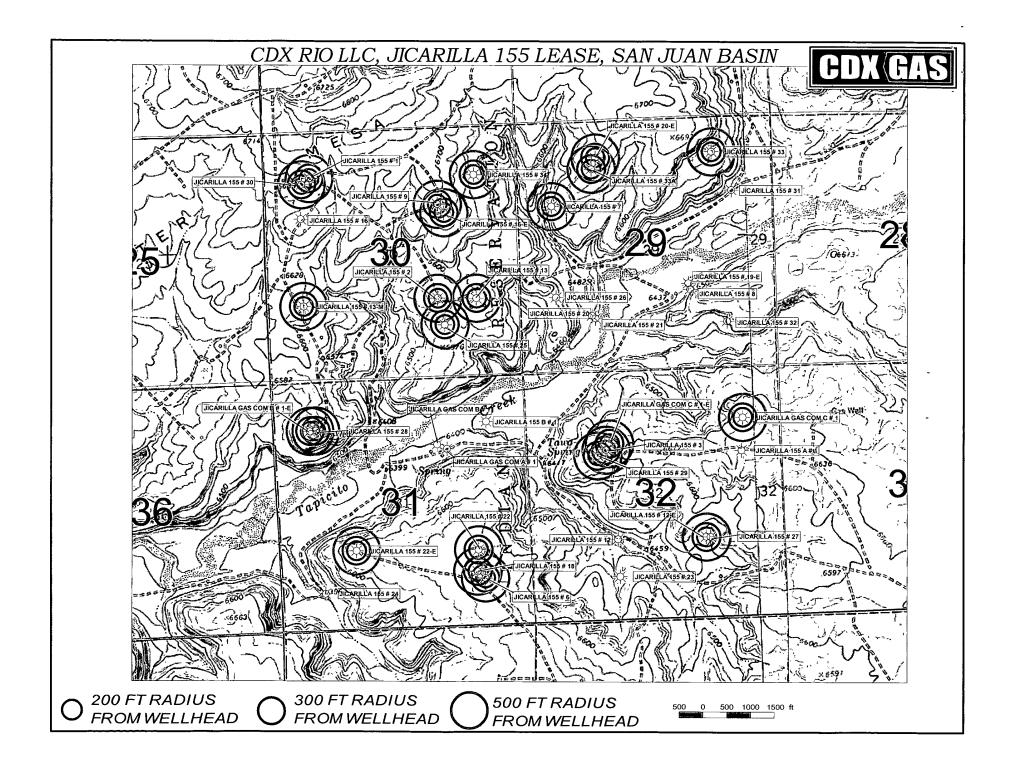
State Boundary

County Boundaries

Oil and Gas Unit Boundary

Geologic Regions

For detailed legend of the Geologic Map of New Mexico, Please see http //geomfo.mnt edu/





Hydrogeological Report Jicarilla 155 #22E Peter Kondrat

Ground Water Data, Water Well Locations

Hydraulic Properties: Levings and Others (1990) reported well yields from 79 water wells completed in the San Jose, Nacimiento and Animas Formations ranged from 1 to 61 gallons per minute and median is 6 gallons per minute. Transmissivity data for the San Jose, Nacimiento and Animas Formations are minimal. Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone and Others, 1983, table 5). The San Jose, Nacimiento and Animas Formations are a source of water for public supply, commercial, private-domestic and livestock use in areas where drilling depths and pumping levels are economically feasible and where water quality is suitable.

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

iWaters Database: The search showed no reported wells with groundwater information in the **T26N-R5W**. Attached are the results for the three query engines: 1) POD/Surface Data Report, 2) Avg Depth to Water Report, 3) Water Column Report

- > Ground water is not less than 50 feet below the bottom the subject location
- No known private water wells are within 500 feet of the subject location
- No known public water wells are within 1000 feet of the subject location
- No water wells around the subject area are listed in the iWaters Database

New Mexico Office of the State Engineer POD Reports and Downloads

POD Reports and Downloads			
Township: 26N Range: 05W Sections:			
NAD27 X: Y: Zone: Search Radius:			
County: Basin: Number: Suffix:			
Owner Name: (First) (Last) Onn-Domestic Onnestic			
POD / Surface Data Report Avg Depth to Water Report Water Column Report			
Clear Form iWATERS Menu Help			
WATER COLUMN REPORT 08/26/2008			
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) POD Number Tws Rng Sec q q q Zone X Y Well Water Column			
No Records found, try again			

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 26N	Range: 05W	Sections:		
NAD27 X:	Y:	Zone:	Search	n Radius:
County: Bas	in:		Number:	Suffix:
Owner Name: (First)	(Last)		_ ○Non-Do	omestic ODomestic OAll
POD / Surface Data Repo	ort CAV	g Depth to Water	Report	Water Column Report
	Clear Form	iWATERS Me	nu Help	

AVERAGE DEPTH OF WATER REPORT 08/26/2008

(Depth Water in Feet)

Bsn Tws Rng Sec Zone X Y Wells Min Max Avg

No Records found, try again

New Mexico Office of the State Engineer POD Reports and Downloads

TOD AMPONDATION						
	Townsh	ip: 26N Range: 05W	Sections:			
	NAD27 X	Κ : Υ:	Zone:	Search Radiu	ıs:	
	County:	Basin:		Number:	Suffix:	
	Owner Name: (First)	(Last)		Non-Domestic	e O Domestic	⊚ All
	POD / Surface [Data Report A	vg Depth to Water	Report Wa	ter Column Report	
		Clear Form	iWATERS Me	nu Help		
		POD / SURFACE DA	TA REPORT 08/		_	1=NW 2=NE 3=SW 4.=SE)
DB File Mbr SJ 01098	(acre ft per and Use Diversion 15	Owner		POD Number SJ 01098	Source	piggest to smallest Tws Rng Sec q q q 26N 05W 31 2 3 2

Record Count: 1

New Mexico Office of the State Engineer Water Right Summary

Back

DB File Nbr: SJ 01098

Primary Purpose:

OIL OIL PRODUCTION

Primary Status: 0

PMT Permit

Total Acres: Total Diversion:

15

Owner: AMOCO PRODUCTION COMPANY

Documents on File

Doc File/Act

Status 1 2 3 Trans Desc

From/To

Т

Acres Diversion Consumptive

APPRO 03/13/1980 PMT APR PRC SJ 01098

0 15

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

(qtr are biggest to smallest

X Y are in Feet Y

UTM are in Meters)

Point of Diversion POD Number SJ 01098

Source Tws Rng Sec q q q 05W 31 2 3 2 26N

Zone Х UTM Zone Easting Northing 13 285102 4036094 La

Priority Status Acres Diversion POD Number

Source

12/06/1979 PMT

15

SJ 01098

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

Place of Use

(quarters are biggest to smallest

Tws Rng Sec qqq 26N 05W 31

Acres Diversion Consumptive 0 15

Use OIL Priority PMT

Other Location Description Status

PLACE OF USE WILL BE AT DIFFER

New Mexico Office of the State Engineer Transaction Summary

Back

APPRO Application to Appropriate

Primary status: PMT Permit
Secondary status: APR Approved

QAT

Person assigned: ******

Applicant: AMOCO PRODUCTION COMPANY

Decemination

Events

Date	туре	Description	Comment	Processed B
12/06/1979	APP	Application Received	*	****
12/06/1979	MAP	Map or Plat Received	*	*****
12/21/1979	NFP	Notice for Publication		****
02/12/1980	AOP	Affidavit of Publication rcv		****
03/13/1980	PUC	PBU/PCW Approval		*****
03/13/1980	FIN	Final Action on application		*****
12/30/2002	ARV	Rec & Arch - file location	SJ 01098 Box: 82	*****
12/16/2003	QAT	Quality Assurance Completed	SQ 1	*****
03/24/2005	QAT	Quality Assurance Completed	IMAGE MAP	****

DB_File_Nbr Acres Diversion Consumptive Purpose of Use SJ 01098 0 15 0 OIL OIL PRODUCTION

Quality Assurance Completed

Point of Diversion

SJ 01098 26N 05W 31 NE SW NE in Rio Arriba County

Place Of Use

10/19/2005

Diversion Consumptive Priority Other Locati Sec Acres Use Status Tws Rng 15 26N 05W 31 OIL PMT PLACE OF USE

SQ2

Remarks

THIS WELL WILL BE DRILLED ON THE SAME LOCATION AS AMOCO'S

JICARILLA GAS COM "B" #1.

Conditions

5B :A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor on or before the 10th of Jan., April, July, and Oct. of each year for the 3 preceeding calendar months.

Action of the State Engineer

Approval Code: A Approved
Action Date: 03/13/1980
pcw due date: 03/31/1984
pbu due date: 03/31/1984

State Engineer: John R. D Antonio, Jr., P.E.

By:



Hydrogeological Report Jicarilla 155 #22E Peter Kondrat

Wetland Maps and Data

The US Fish and Wildlife for the Jicarilla 155 #22E is unavailable due to its location being within the Jicarilla Apache Indian Nation. The US Fish and Wildlife does not have wetland information for the Jicarilla Apache Indian Nation. This well is not located near a wash or watercourse and is not in a wetland area as visible on the topographic map.

Flood Zone Maps and Data

The FEMA Map for the **Jicarilla 155 #22E** is unavailable due to its location being within the Jicarilla Apache Indian Nation. FEMA does not provide floodplain information for the Jicarilla Apache Indian Nation. This well is not located near a wash or watercourse and is not in a 100 year floodplain as visible on the topographic map.



References

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Wells, S.G., Lambert, W., and Callender, J., 1981, Environmental Geology and Hydrology in New Mexico: New Mexico Geological Society Special Publication #10, 152p.

New Mexico Office of the State Engineer-iWATERS Database http://www.ose.state.nm.us/water_db_index.html

New Mexico EMNRD Mining and Mineral Divison http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm

State Bureau of Mines and Minerals Resources http://geoinfo.nmt.edu/index.html

US Fish and Wildlife http://www.fws.gov.html

New Mexico Land Office



Hydrogeological Report Jicarilla 155 #22E Peter Kondrat

http://store.usgs.gov/mod/index.html http://terraserver-usa.com

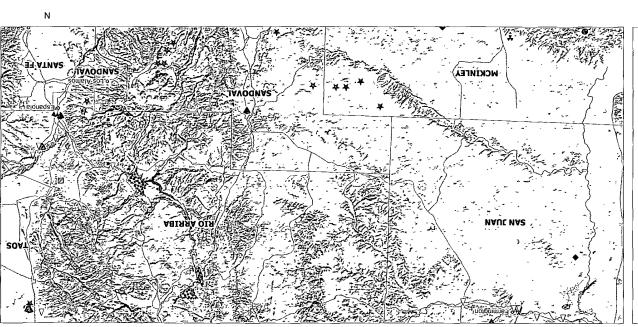
US Geological Survey (USGS) http://store.usgs.gov/mod/index.html http://terraserver-usa.com/

Federal Emergency Management Agency (FEMA)
http://www.fema.gov/
http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeld=10001&catallogld=10001&langld=-1

Google Earth http://landstatus.nmstatelands.org/
http://www.earthpoint.us/townships.html

New Mexico Geological Society http://nmgs.nmt.edu/

CDX'S TAPICITO PROJECT SAN JUAN BASIN MINES, MINERALS AND QUARRIES WEB MAP



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Aggregate & Stone Mines	1
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Below Grade Tank Management Plan

I. Siting Criteria

- 1. No below grade tank may be located where:
 - a. Ground water is less than 50 feet below the bottom of the temporary pit or below grade tank.
 - b. Within 300 feet of a continuously flowing watercourse
 - c. Within 200 feet of any significant watercourse, lakebed, sinkhole or playa lake
 - d. Within 300 feet from a permanent residence, school, hospital, institution or church
 - e. Within 500 feet of a private domestic fresh water well or spring used by less than five households for domestic or stock watering purposes or within 1000 feet of any other fresh water well spring.
 - f. 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, unless the municipality specifically approves
 - g. Within 500 feet of a wetland
 - h. Within an unstable area
 - i. Within a 100 year flood plain
 - j. Over or near any known or suspected mined area
- 2. If ground water is an issue, the tank shall be placed above ground in a lined berm.
- 3. All excavated material will be stored at least 300 feet from any continuous flowing water and 200 feet away from any other water way.

II. Construction:

- 1. After June 16, 2008 any below grade tank replacement will use only steel double walled, double bottom tanks with a leak detection system.
- 2. The below grade tank pit bottom shall be free on any rocks, debris, sharp edges, or irregularities
- 3. Prior to the installation of any tank, the soil shall be sampled for
 - a. Chlorides
 - b. Benzene, toluene, ethyl benzene, and xylene
 - c. Benzene
 - d. Total petroleum hydrocarbons.
- 4. A fence meeting one of the following requirements shall be erected around the tank site consisting of:
 - a. Four strands of barbed wire placed on a pole between one and four feet

- b. A chain link fence six feet tall and topped with at least two strands of barbed wire when the temporary pit is within 1000 feet of a residence, school, hospital, institution or church. The fence shall have a gate which is locked when responsible personnel are not on-site.
- c. Oil Conservation Division approved alternative

 Note: CDX Gas uses Jicarilla Apache Tribal approved hog wire with a
 barbed wire top
- 5. Any open top tank shall be covered with netting, expanded metal, or "chicken wire" to prevent wildlife from entering the tank.
- 6. Any tank area shall be bermed to prevent the run on of water.

III. Operations and Maintenance:

- 1. All tanks and existing pits shall be inspected each month as a part of the Spill Prevention Control and Countermeasure facility inspection.
- 2. The inspection shall be documented on the Spill Prevention Control and Countermeasures Plan inspection form and maintained for at least five years.
- 3. All sides of the below grade tanks existing before June 16, 2008 shall be visible.
- 4. Any dirt or debris shall be noted on the inspection form and removed promptly.
- 5. Any oil visible on the surface of the fluid in the below grade tank shall be promptly removed.
- 6. Absorbent materials shall be maintained on site for this purpose.
- 7. Each below grade tanks shall have enough free board to prevent overflowing.
- 8. Any spillage or leak shall be reported to the Oil Conservation Division with in 48 hours of detection.
- 9. Any produced waste shall be disposed at either:
 - a. Basin Disposal (permit number NM-01-005)
 - b. Aquamoss (permit number SWD-1034A)

IV. Closure:

- 1. Current configuration consists of one single walled steel tank which does meet 19.15.17 NMAC. The tank will be replaced with steel, double walled, double bottomed tanks having a leak detection system by June 16 2013.
- 2. The tank shall be recycled, reused, reclaimed or disposed of in an Oil Conservation Division approved manner.
- 3. Any existing below grade tank which does not show integrity shall be immediately removed from service.
- 4. The soil under a pit shall be sampled for:
 - a. Benzene as determined by Environmental Protection Agency SW-846 method 8012B or 8260B or other Environmental Protection Agency method that the Oil conservation Division approves. The test shall not exceed 0.2 mg/kg.
 - b. Total Petroleum Hydrocarbons as determined by the Environmental Protection Agency SW-846 method 8021B or 8260B or other 418.1

- Environmental Protection-Agency method that the Oil Conservation Division approves. The test shall not exceed 100 mg/kg.
- c. Total Benzene, Toluene, Ethyl Benzene, and Xylene as determined by Environmental Protection Agency SW-846 method 8021B or 8260B or other Environmental Protection Agency method that the Oil Conservation Division approves. The test shall not exceed 50 mg/kg.
- d. Chlorides as determined by Environmental Protection Agency method 300.1. The test shall not exceed 250mg/kg or background concentration, whichever is greater.
- 5. If contaminated soil is found under the pit, the soil will be removed and transported to either:
 - a. TNT land farm (permit number NM-01-0008)
 - b. Industrial Ecosystems Landfarm (permit number NM 01-0010B)
- 6. Any produced sludge shall be disposed of at either:
 - a. Basin Disposal (permit number NM-01-005)
 - b. Aquamoss (permit number SWD-1034A)
- 7. Any equipment associated with the removed below grade tank shall be removed unless needed for some other purpose.
- 8. Upon permanent closure of the below grade tank location:
 - a. Notify the land owner in writing by certified mail, return receipt requested, of the closure.
 - b. Notify the Oil Conservation Division at least 72 hours but not more than one week in advance of the closure.
 - c. Submit a closure report to the Oil Conservation Division with in 60 days.

V. Site Reclamation

A. Contouring:

- 1. The site shall be contoured to blend in with the surrounding terrain.
- 2. The soil cover shall consist of the background thickness of topsoil or one foot of suitable material for establishing vegetation at the site, which ever is greater.
- 3. The soil shall be spread in such a manner as to prevent the pooling of water.

B. Reseeding:

- 1. The area shall be reseeded at the first growing season after the completion of all work.
- 2. The seed mixture shall consist of three native plant species including one grass or Jicarilla Apache Tribal approved seed mix.
- 3. The seed mixture shall be drilled on the contour whenever practical.
- 4. At least 70 percent of the native perennial vegetative cover (unimpacted by overgrazing, fire, or other intrusive damage) shall be maintained through two successive growing seasons. Irrigation may not be used to accomplish the required ground cover.