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 I

State of New Mexico Energy Minerals and Natural Resources Department

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate

oad, Aztec, NM 87410 Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	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.
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Pit, Closed-Loop System, Below-Grade Tank, or					
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, 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					
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.					
1. Operator: _CDX Gas LLC OGRID #:222374					
Address:2700 Farmington Ave, Building K, Suite #1					
Facility or well name:Jıcarılla Contract 147 #005E					
API Number:30-039-23252OCD Permit Number:					
U/L or Qtr/QtrD Section 7 Township 25N Range5W County:Rio Arriba					
Center of Proposed Design: Latitude36.41911 Longitude107.40706 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:					
UIL CUNS. UIV.					
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other					
String-Reinforced					
Liner Seams: Welded Factory Other Volume: bbl Dimensions: Lx Wx D					
Elliel Sealis. Welded   Factory   Other   Volume. Our Dimensions. L   X W   X D					
3.  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 ☐ Haul-off Bins ☐ Other					
☐ Lined ☐ Unlined Liner type: Thicknessmıl ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other					
Liner Seams: Welded Factory Other					
4.					
Below-grade tank: Subsection I of 19.15.17.11 NMAC					
Volume:95bbl Type of fluid:Produced water					
Tank Construction material:Steel(Tank:#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					
Liner type: Thicknessmil  HDPE PVC  Other Below grade tank to be closed per new rule					
5.					
Alternative Method:					
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration 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)  The Four foot height, four strands of barbed wire evenly spaced between one and four feet				
✓ Alternate. Please specify_Four foot hog wire				
7.				
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				
Magnet in compliance with 17.13.3.103 WMAC				
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 of the Santa Fe En	office for			
consideration of approval.    Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.				
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 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 applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dryitabove-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)	Yes No			
- 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 search; Visual inspection (certification) of the proposed site	163 110			
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:
12.
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:
Previously Approved Operating and Maintenance Plan 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 <sub>2</sub> S, Prevention Plan  Emergency Response Plan  Oil Field Waste Stream Characterization  Monitoring and Inspection Plan  Erosion Control Plan  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank 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 I 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.) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if 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 ser  Yes (If yes, please provide the information below) 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				
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			
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 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.  String 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 G of 19.15.17.13 NMAC				

Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurately.	trate and complete to the best of my knowledge and belief.		
Name (Print):Lee Gardner	Title:HSE Coordinator		
Signature: 2ce DeneM	Date: \h\lu\8		
e-mail address:lee.gardner@cdxgas.com			
OCD Approval: Permit Application (including closure plan) Closure of the Company	Plan (only) OCD Conditions (see attachment)  Approval Date: 4/9/2012  OCD Permit Number:		
Closure Report (required within 60 days of closure completion): Subsection K of 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.  The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:			
22. Closure Method:  ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Altern ☐ If different from approved plan, please explain.	native Closure Method		
Closure Report Regarding Waste Removal Closure For Closed-loop System Instructions: Please indentify the facility or facilities for where the liquids, dr. two facilities were utilized.	illing fluids and drill cuttings were disposed. Use attachment if more than		
Disposal Facility Name:	•		
Disposal Facility Name:	Disposal Facility Permit Number:		
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  Yes (If yes, please demonstrate compliance to the items below) \( \subseteq \text{No} \)			
Required for impacted areas which will not be used for future service and opera  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	ions:		
24.  Closure Report Attachment Checklist: Instructions: Each of the following is mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure)  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 Long			
25.			
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure require			
Name (Print):	Title:		
Signature:	Date:		
e-mail address:	Telephone:		



### Below Grade Tank Closure Plan

#### I. Closure:

- 1. Current configuration consists of one single walled steel tank and one single walled fiberglass reinforced plastic tank.
- 2. Current configuration will be replaced with an above ground tank with in a lined bermed facility
- 3. If existing below grade tank which does not show integrity shall be immediately removed from service.
- 4. The tank shall be recycled, reused, reclaimed or disposed of in an Oil Conservation Division approved manner.
- 5. The soil under any 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 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/liquids 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.

### II. 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.