District L 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 closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

Form C-144 CLEZ

July 21, 2008

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: X Permit Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.		
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.		
T T		
Operator: Energen Resources Corporation OGRID #: 162928		
Address: 2010 Afton Place, Farmington, NM 87401		
Facility or well name: Richardson #100S		
API Number: 30-045-35238 OCD Permit Number:		
U/L or Qtr/Qtr A Section 2 Township 27N Range 13W County: San Juan		
Center of Proposed Design: Latitude 36.60845 Longitude 108.18292 NAD: ☐1927 ☒ 1983		
Surface Owner: Federal State Private X Tribal Trust or Indian Allotment		
Z Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Operation: X Drilling a new well X Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) P&A		
X Above Ground Steel Tanks or X Haul-off Bins		
3. 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		
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 dual the documents are attached.		
Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.13. NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.		
Previously Approved Design (attach copy of design) API Number:		
Previously Approved Operating and Maintenance Plan API Number:		
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: Envirotech Disposal Facility Permit Number: NM-01-0011		
Disposal Facility Name: IEI Disposal Facility Permit Number: NM-01-0010B		
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)		
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		
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.		
Name (Print): Andrew Soto Title: Drilling Engineer		
Signature:		
e-mail address: asoto@energen.com Telephone: 505.325.6800		

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OCD Representative Signature:	Plan (only) Approval Date: 12/05/20(1	
Title: Complance Office OCDP	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:	
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for where the liquids, drilling fluthan two facilities were utilized. Disposal Facility Name: Disposal	uids and drill cuttings were disposed. Use attachment if more	
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) No		
Required for impacted areas which will not be used for future service and operations. Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique		
Operator Closure Certification. I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.		
Name (Print):	Title	
Signature:	Date:	
e-mail address:	Telephone:	



CLOSED-LOOP SYSTEM

Design Plan

The closed loop system will include a haul off bin and sump to facilitate the collection of liquids derived from drill cuttings and an above ground steel holding tank suitable for generated cuttings and fluids during rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1) Fencing is not required for an above ground closed-loop system.
- 2) It will be signed in compliance with 19.15.3.103 NMAC.
- 3) A frac tank will be on location in order to store fresh water.

Operating and Maintenance Plan

A modified steel tank will be operated and maintained; to contain liquids and drill cuttings, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. To attain this goal the following steps will be followed:

- 1) The liquids in the closed-loop tank will be re-circulated through the mud system or vacuumed and disposed of at Envirotech (Permit Number NM-01-0011) or IEI/JFJ Landfarm (#NM-01-0010B) on a periodic basis to prevent over topping.
- 2) As drill solids are generated, a front-end loader removes the waste and will begin dumping it inside a haul-off bin.
- 3) Small amounts of dirt or lime my added to aid in drying.
- 4) No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tank.
- 5) The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon the discovery of the compromised tank, repairs will be enacted immediately.
- 6) All of the above operations will be inspected and a log will be signed and dated. During rig operations the inspection will be daily.

Closure Plan

The closed loop holding tank will be closed in accordance with 19.15.17.13. To accomplish this, all cuttings in the haul-off bin and any remaining fluids in the holding tank will be hauled to **Envirotech** (Permit # NM-01-0011) or **IEI/JFL Landfarm** (# NM-01-0010B) immediately following rig operations. The tanks will be removed from location as part of the rig move, and stacked cuttings to a commercial disposal site mentioned above. The APD Conditions of Approval will be followed for cite reclamation.

Completion Plan

A closed-loop tank will be set on location once drilling operations have ceased. The closed-loop tank will measure 20 ft height by 12 ft diameter (400 BBL) or 20 ft height by 10 ft 6 in diameter (300 BLL). It will be designed, operated, maintained and closed according to the attached Closed-loop Design Plan, Closed-loop Operating and Maintenance Plan, and Closed-loop Closure Plan,