## District 1 1625 N French Dr., Hobbs, NM 88240 District H 1301 W. Grand Avenue, Artesia, NM 88210 District HI 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

Form C-144 CL1'Z July 21, 2008

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.

### Closed-Loop System Permit or Closure Plan Application

1220 South St. Francis Dr.

Santa Fe, NM 87505

(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 ordinance.

Operator: Chesapeake Operating, Inc.	OGRID #: 147179	RECEIVED
Address: P.O. Box 18496 Oklahoma City, OK 73154-		DEC 1 6 2009
Facility or well name: PLU Pierce Canyon 12 Federal		1
API Number: 30-015-37518	- 0 (10)-	NMOCD ARTESIA
	Fownship 24 South Range 29 East County: Edd	ly
Center of Proposed Design: Latitude 32.225357		NAD: 🛛 1927 🗌 1983
Surface Owner: 🛛 Federal 🗌 State 🗍 Private 🗍 Tribal 🖯	Frust or Indian Allotment	
2.		
X Closed-loop System: Subsection H of 19.15.17.11 N	MAC	
Operation: X Drilling a new well Workover or Drilling	g (Applies to activities which require prior approval of a pern	nit or notice of intent) P&A
☐ Above Ground Steel Tanks or ☐ Haul-off Bins		
3.		
Signs: Subsection C of 19.15.17.11 NMAC  12"x 24", 2" lettering, providing Operator's name, site I	location, and emergency telephone numbers	
☐ 12 x 24 , 2 reterring, providing operator's name, site of Signed in compliance with 19.15.3.103 NMAC	rocation, and emergency telephone numbers	
Za signed in compliance with 17/13/3/105 (with to		AND
Closed-loop Systems Permit Application Attachment Cl		
	ed to the application. Please indicate, by a check mark in th	e box, that the documents are
attached.	0.0	
- IXI Decign Plan - based upon the engrousiste requirement	ote of 19.15.17.11 NMAC	
Design Plan - based upon the appropriate requirement		
Operating and Maintenance Plan - based upon the ap	opropriate requirements of 19.15.17.12 NMAC	n (
<ul> <li>Operating and Maintenance Plan - based upon the ap</li> <li>Closure Plan (Please complete Box 5) - based upon t</li> </ul>	opropriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N	NMAC and 19.15.17.13 NMAC
☐ Operating and Maintenance Plan - based upon the ap ☐ Closure Plan (Please complete Box 5) - based upon t ☐ Previously Approved Design (attach copy of design)	opropriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 NAPI Number:	NMAC and 19.15.17.13 NMAC
<ul> <li>Operating and Maintenance Plan - based upon the ap</li> <li>Closure Plan (Please complete Box 5) - based upon t</li> </ul>	opropriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 NAPI Number:	NMAC and 19.15.17.13 NMAC
<ul> <li>☒ Operating and Maintenance Plan - based upon the ap</li> <li>☒ Closure Plan (Please complete Box 5) - based upon t</li> <li>☐ Previously Approved Design (attach copy of design)</li> <li>☐ Previously Approved Operating and Maintenance Plan</li> <li>5.</li> <li>Waste Removal Closure For Closed-loop Systems That</li> </ul>	opropriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N API Number: API Number: Utilize Above Ground Steel Tanks or Haul-off Bins Only:	(19.15.17.13.D NMAC)
☐ Operating and Maintenance Plan - based upon the ap ☐ Closure Plan (Please complete Box 5) - based upon the Previously Approved Design (attach copy of design) ☐ Previously Approved Operating and Maintenance Plan 5.  Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for	opropriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 NAPI Number:  API Number:  API Number:	(19.15.17.13.D NMAC)
☐ Operating and Maintenance Plan - based upon the ap ☐ Closure Plan (Please complete Box 5) - based upon the Previously Approved Design (attach copy of design) ☐ Previously Approved Operating and Maintenance Plan 5.  Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for facilities are required.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N API Number: API Number: Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use	(19.15.17.13.D NMAC) eattachment if more than two
☐ Operating and Maintenance Plan - based upon the ap ☐ Closure Plan (Please complete Box 5) - based upon the Previously Approved Design (attach copy of design) ☐ Previously Approved Operating and Maintenance Plan 5.  Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N API Number: API Number: Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:	(19.15.17.13.D NMAC)  attachment if more than two  NM-01-0006
☐ Operating and Maintenance Plan - based upon the ap ☐ Closure Plan (Please complete Box 5) - based upon the ☐ Previously Approved Design (attach copy of design) ☐ Previously Approved Operating and Maintenance Plan  5.  Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc. Disposal Facility Name: Sundance Disposal Will any of the proposed closed-loop system operations and	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N API Number: API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number: Disposal Facility Permit Number: d associated activities occur on or in areas that will not be use	(19.15.17.13.D NMAC) attachment if more than two . NM-01-0006 NM-01-0003
□ Operating and Maintenance Plan - based upon the ap     □ Closure Plan (Please complete Box 5) - based upon the     □ Previously Approved Design (attach copy of design)     □ Previously Approved Operating and Maintenance Plan      □ Previously Approved Operating and Maintenance Plan      □ Waste Removal Closure For Closed-loop Systems That     □ Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc.  Disposal Facility Name: Sundance Disposal  Will any of the proposed closed-loop system operations and  □ Yes (If yes, please provide the information below)   Output  Disposal Plan (Please complete Box 5) - based upon the ap  Example 10 - based upon the ap  Sundance Plan - based upon the ap  Sundance Plan - based upon the ap  Example 21 - based upon the plan to t	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use	(19.15.17.13.D NMAC) attachment if more than two . NM-01-0006 NM-01-0003
☐ Operating and Maintenance Plan - based upon the ap     ☐ Closure Plan (Please complete Box 5) - based upon the     ☐ Previously Approved Design (attach copy of design)     ☐ Previously Approved Operating and Maintenance Plan     ☐ Waste Removal Closure For Closed-loop Systems That     ☐ Instructions: Please indentify the facility or facilities for     facilities are required.     ☐ Disposal Facility Name: Controlled Recovery, Inc.     ☐ Disposal Facility Name: Sundance Disposal     ☐ Yes (If yes, please provide the information below)      ☐ Required for impacted areas which will not be used for futners.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations:	(19.15.17.13.D NMAC)  **attachment if more than two  NM-01-0006  NM-01-0003  **d for future service and operations'
□ Operating and Maintenance Plan - based upon the ap     □ Closure Plan (Please complete Box 5) - based upon the     □ Previously Approved Design (attach copy of design)     □ Previously Approved Operating and Maintenance Plan     □ Waste Removal Closure For Closed-loop Systems That     Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc.     □ Disposal Facility Name: Sundance Disposal     □ Yes (If yes, please provide the information below)      □ Required for impacted areas which will not be used for futto Soil Backfill and Cover Design Specifications based for the position of the proposed closed Specifications based for futto Soil Backfill and Cover Design Specifications based for futto Soil Backfill and Cover Design Specifications based for futto Specifications	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  lare service and operations: sed upon the appropriate requirements of Subsection H of 19.	(19.15.17.13.D NMAC)  **attachment if more than two  NM-01-0006  NM-01-0003  **d for future service and operations'
☐ Operating and Maintenance Plan - based upon the ap     ☐ Closure Plan (Please complete Box 5) - based upon the     ☐ Previously Approved Design (attach copy of design)     ☐ Previously Approved Operating and Maintenance Plan     ☐ Waste Removal Closure For Closed-loop Systems That     ☐ Instructions: Please indentify the facility or facilities for     facilities are required.     ☐ Disposal Facility Name: Controlled Recovery, Inc.     ☐ Disposal Facility Name: Sundance Disposal     ☐ Yes (If yes, please provide the information below)      ☐ Required for impacted areas which will not be used for futners.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC	(19.15.17.13.D NMAC)  **attachment if more than two  NM-01-0006  NM-01-0003  **d for future service and operations'
□ Operating and Maintenance Plan - based upon the ap     □ Closure Plan (Please complete Box 5) - based upon the     □ Previously Approved Design (attach copy of design)     □ Previously Approved Operating and Maintenance Plan      ■     ■ Waste Removal Closure For Closed-loop Systems That     Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc.  Disposal Facility Name: Sundance Disposal  Will any of the proposed closed-loop system operations and     □ Yes (If yes, please provide the information below)   Required for impacted areas which will not be used for futh     □ Soil Backfill and Cover Design Specifications base     □ Re-vegetation Plan - based upon the appropriate required.  Site Reclamation Plan - based upon the appropriate required.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC	(19.15.17.13.D NMAC)  **attachment if more than two  NM-01-0006  NM-01-0003  **d for future service and operations'
□ Operating and Maintenance Plan - based upon the ap     □ Closure Plan (Please complete Box 5) - based upon the     □ Previously Approved Design (attach copy of design)     □ Previously Approved Operating and Maintenance Plan  5.  Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for facilities are required.  Disposal Facility Name: Controlled Recovery, Inc.  Disposal Facility Name: Sundance Disposal  Will any of the proposed closed-loop system operations and     □ Yes (If yes, please provide the information below)   Required for impacted areas which will not be used for futt     □ Soil Backfill and Cover Design Specifications base     □ Re-vegetation Plan - based upon the appropriate required.  Site Reclamation Plan - based upon the appropriate required.	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number: d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC requirements of Subsection G of 19.15.17.13 NMAC	(19.15.17.13.D NMAC)  attachment if more than two  NM-01-0006  NM-01-0003  ad for future service and operations.
□	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC requirements of Subsection G of 19.15.17.13 NMAC	(19.15.17.13.D NMAC) extrachment if more than two NM-01-0006 NM-01-0003 ed for future service and operations' 15.17.13 NMAC
□	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number: d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC requirements of Subsection G of 19.15.17.13 NMAC	(19.15.17.13.D NMAC) extrachment if more than two NM-01-0006 NM-01-0003 ed for future service and operations' 15.17.13 NMAC
□	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC requirements of Subsection G of 19.15.17.13 NMAC	(19.15.17.13.D NMAC) extrachment if more than two NM-01-0006 NM-01-0003 ed for future service and operations 15.17.13 NMAC
□	propriate requirements of 19.15.17.12 NMAC the appropriate requirements of Subsection C of 19.15.17.9 N  API Number:  API Number:  Utilize Above Ground Steel Tanks or Haul-off Bins Only: the disposal of liquids, drilling fluids and drill cuttings. Use  Disposal Facility Permit Number:  Disposal Facility Permit Number:  d associated activities occur on or in areas that will not be use  No  are service and operations: sed upon the appropriate requirements of Subsection H of 19. uirements of Subsection I of 19.15.17.13 NMAC requirements of Subsection G of 19.15.17.13 NMAC  pplication is true, accurate and complete to the best of my kno  Title: Senior Regulatory Co	(19.15.17.13.D NMAC) extrachment if more than two NM-01-0006 NM-01-0003 ed for future service and operations of the service an

7. OCD Approval: Permit Application (including closure plan) Closure Plan (only)			
OCD Representative Signature: Scurs R Dodo Approval Date: 01/26/2010  Title: D15T TT Supervisor OCD Permit Number: 209907			
Title: Dist II Supervisor	Approval Date: 01/26/2010  OCD Permit Number: 209907		
8.  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:			
Olosure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:  Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than 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 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):			
Signature:	Date:		
e-mail address:			

Prevailing Winds from the North in Winter and from the South in Summer. 330' Solids Control Equipment (above steel tanks) Flare Tank Steel Tanks Steel Tanks Steel Tanks Steel Tanks Flare line discharge will be 100' from well head Trip Tank Choke manifold 100, PUMP BRAKE WATER COOLER LINE 275' SUBSTRUCTURE DERRICK STAND 180' 150' SER CHANGE HOUSE CEMENT CEMENT CEMENT FUEL ACCUMULATOR WATER 175' 330' Not to scale LATSHAW #6 Exhibit D

# Chesapeake Operating, Inc.'s Closed Loop System PLU Pierce 12 Federal # 1H Unit P, Sec. 12, T-24-S R-29-E Eddy Co., NM API # TBD

### Equipment & Design:

Chesapeake Operating, Inc. is to use a closed loop system with roll-off steel pits. This rig has:

Two (2) Dual Motion "National 285-P" Shale Shakers

Two (2) 250 bbl per/minute "MI-Swaco" centrifuges

Two (2) 500 bbl "frac" tank" for fresh water

Two (2) 500 bbl "frac tank" brine water

### **Operations & Maintenance:**

During each and every tour, the rig's drilling crew will inspect and monitor closely the drilling fluids contained within the steel pits and visually monitor any spill which may occur.

Within 48 hours should a spill, release or leak occur, the NMOCD District II office in Artesia (575-748-1283) will be notified. Please note that notifications may be made earlier to the district office should a greater release occur.

#### Closure:

During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed to the Controlled Recovery, Inc.'s location.

The permit number for Controlled Recovery, Inc. is: NM-01-0006 The alternative disposal facility will be Sundance Disposal. Their permit # is: NM-01-0003.