HODBBS OCD State of New Mexico

Energy Minerals and Natural Resources

2 7 2013 Department

Oil Conservation Division 1220 South St. Francis Dr. Form C-144 CLEZ Revised August 1, 2011

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.

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

RECEIVED 1220 South St. Francis 1 Santa Fe, NM 87505

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: 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. Operator: BLUESTEM ENERGY HOLDINGS, LLC OGRID #: 286989 Address: 421 W. 3RD ST., SUITE 700, FORT WORTH TX 76102 Facility or well name: BOBWHITE 12 STATE COM #4H API Number: 30-025-2 U/L or Qtr/Qtr D Section 12 Township 21S Range 33E County: Lea Center of Proposed Design: Latitude N 32.5000° Longitude W 103.53260° NAD: ⊠1927 ☐ 1983 Surface Owner: Federal State Private Tribal Trust or Indian Allotment ☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC Operation: Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) P&A ☐ Above Ground Steel Tanks or ☐ Haul-off Bins 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 19.15.16.8 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, that the documents are attached 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 Box 5) - 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: 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 SUNDANCE INCORPORATED Disposal Facility Permit Number NM-01-0003 Disposal Facility Name CRI Disposal Facility Permit Number NM-01-0006 Disposal Facility Name LEA LAND Disposal Facility Permit Number. NM-01-035 Disposal Facility Name GANDY MARLEY Disposal Facility Permit Number NM-01-0019 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

| 6. Operator Application Certification: | |
|---|----------------------------------|
| I hereby certify that the information submitted with this application is trug-accurate and complete to the best of my knowledge and belief. | |
| Name (Print): Brian Wood Title: Consultant | |
| Signature: | Date: February 27, 2013 |
| e-mail address: brian@permitswest.com Telephone: (505) 466-8120 | |
| OCD Approval: Permit Application (including closure plan) Closure Plan (only) | |
| OCD Representative Signature: | Approval Date: 04/04/13 |
| Title: Petroleum Engineer | OCD Permit Number: P1-05-8/5 |
| 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) \square No | |
| Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique | tions: |
| 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: |

Bluestem Energy Holdings, LLC Bobwhite 12 #3H Closed Loop System Plan Design, Operation & Maintenance, and Closure Plan

Design

The closed loop system plan (CLSP) uses above ground steel tanks, roll off bins, and overflow-frac tanks suitable for holding the cuttings and fluids from rig operations. These containers will be sufficient in volume to maintain a safe free board between disposal of liquids and solids. There will be no drying pad, temporary pit, below grade tank, or sump. (A document showing a schematic of a typical well pad and closed loop system (CLS) is attached.)

- Signs will comply with 19. 15. 3. 103. NMAC
- Frac tanks to store fresh water will be on location
- No fence is required for this above ground CLSP

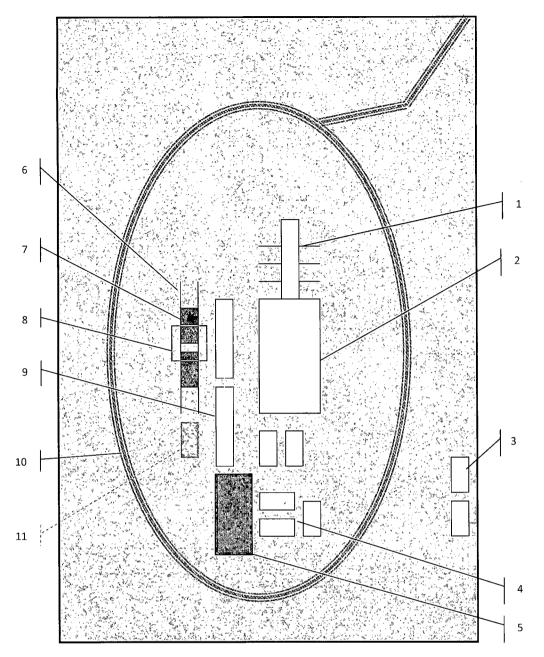
Operation & Maintenance

- 1) The steel above ground tanks will contain liquids and solids to prevent the contamination of fresh water sources.
- 2) Liquids & solids will either be vacuumed out separately or hauled off in roll off bins. Disposal will occur at appropriate OCD licensed facilities on a periodic basis to prevent over topping. Likely facilities are Sundance Services (NM-01-0003) in 29-21s-38e, Controlled Recovery (NM-01-0006) in 27-20s-32e, Gandy Marley (NM-01-0019) in 4-11s-31e, or Lea Land (NM-01-0035) in 32-20s-32e.
- 3) No hazardous waste, miscellaneous solid waste or debris will be discharged into or placed in the tanks. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tanks.
- 4) No waste will be disposed of or buried on location.
- 5) All of the operations will be inspected and a log will be signed daily during rig operations.
- 6) Upon discovery of a compromised closed loop tank, repairs will begin immediately. The OCD district office will be notified within 48 hours of discovery of any compromise.

Closure

- 1) The closed loop tanks will be closed in accordance with 19. 15. 17. 13. NMAC.
- 2) Cuttings and all remaining sludge will be transported to an appropriate OCD licensed facility immediately following completion of rig operations.
- 3) All remaining liquids will be transported to an appropriate OCD licensed facility.
- 4) Tanks will be removed from the location as part of the rig move.
- 5) At time of well plugging & abandonment, the entire well site will be reclaimed and re-vegetated to preexisting conditions when possible.



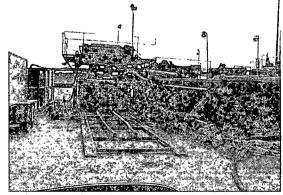


Schematic Closed Loop Drilling Rig*

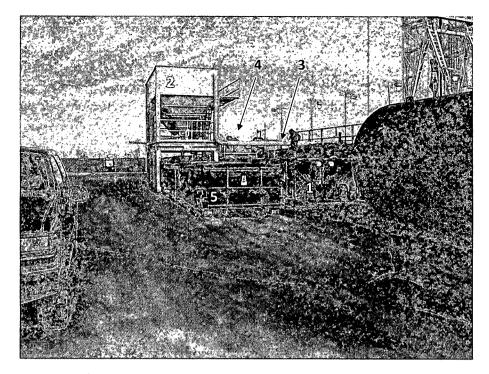
- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- Overflow-Frac Tank 5.
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available





Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)

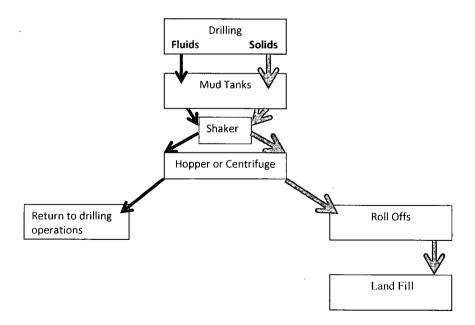
Hopper in air to settle out solids (2)

Water return pipe (3)

Shaker between hopper and mud tanks (4)

Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

