

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.  
NMNM34850

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on reverse**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

DEC 09 2014

8. Well Name and No.

MALACHITE 22 FEDERAL 2H

2. Name of Operator

DEVON ENERGY PRODUCTION CO

Contact: DAVID H COOK

Email: david.cook@devn.com

9. API Well No.

30-025-40389-00-X1

3a. Address

333 WEST SHERIDAN AVE  
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 405-552-7848

10. Field and Pool, or Exploratory  
TONTON

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 22 T19S R33E NENW 330FNL 1465FWL

11. County or Parish, and State

LEA COUNTY, NM

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |   |
|--|---|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | Change to Original APD                    |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Company, L.P. respectfully requests approval to change the BOPE from 3M to a 3M system and add a multi-bowl wellhead system.

Please see the attached 3M BOP schematic, multi-bowl wellhead schematic and pressure control equipment verbiage for the 3M BOP & multi-bowl WH.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

NO 2 m annular or 3m BOP will be used. Changing to a  
3M multi bowl.

NM OIL CONSERVATION  
ARTESIA DISTRICT  
NOV 21 2014

|   |                         |  |                       |  |
|---|-------------------------|--|-----------------------|--|
| 14. I hereby certify that the foregoing is true and correct.  |                         | Electronic Submission #276300 verified by the BLM Well Information System<br>For DEVON ENERGY PRODUCTION CO LP, sent to the Hobbs<br>Committed to AFMSS for processing by JENNIFER MASON on 11/18/2014 (15JAM0025SE) |                       | RECEIVED   |
| Name (Printed/Typed)  | DAVID H COOK            | Title  | REGULATORY SPECIALIST |  |
| Signature   | (Electronic Submission) | Date   | 11/05/2014            | APPROVED   |
| THIS SPACE FOR FEDERAL OR STATE OFFICE USE  |                         |  |                       |  |
| Approved By   |                         | Title  | NOV 18 2014           | BUREAU OF LAND MANAGEMENT<br>CARLSBAD FIELD OFFICE |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. |                         | Office   | KZ                    |  |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

DEC 10 2014

A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

- Wellhead will be installed by FMC's representatives.
- If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- FMC representative will install the test plug for the initial BOP test.
- FMC will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 70% of burst or 1500 psi, whichever is greater, as per Onshore Order #2.

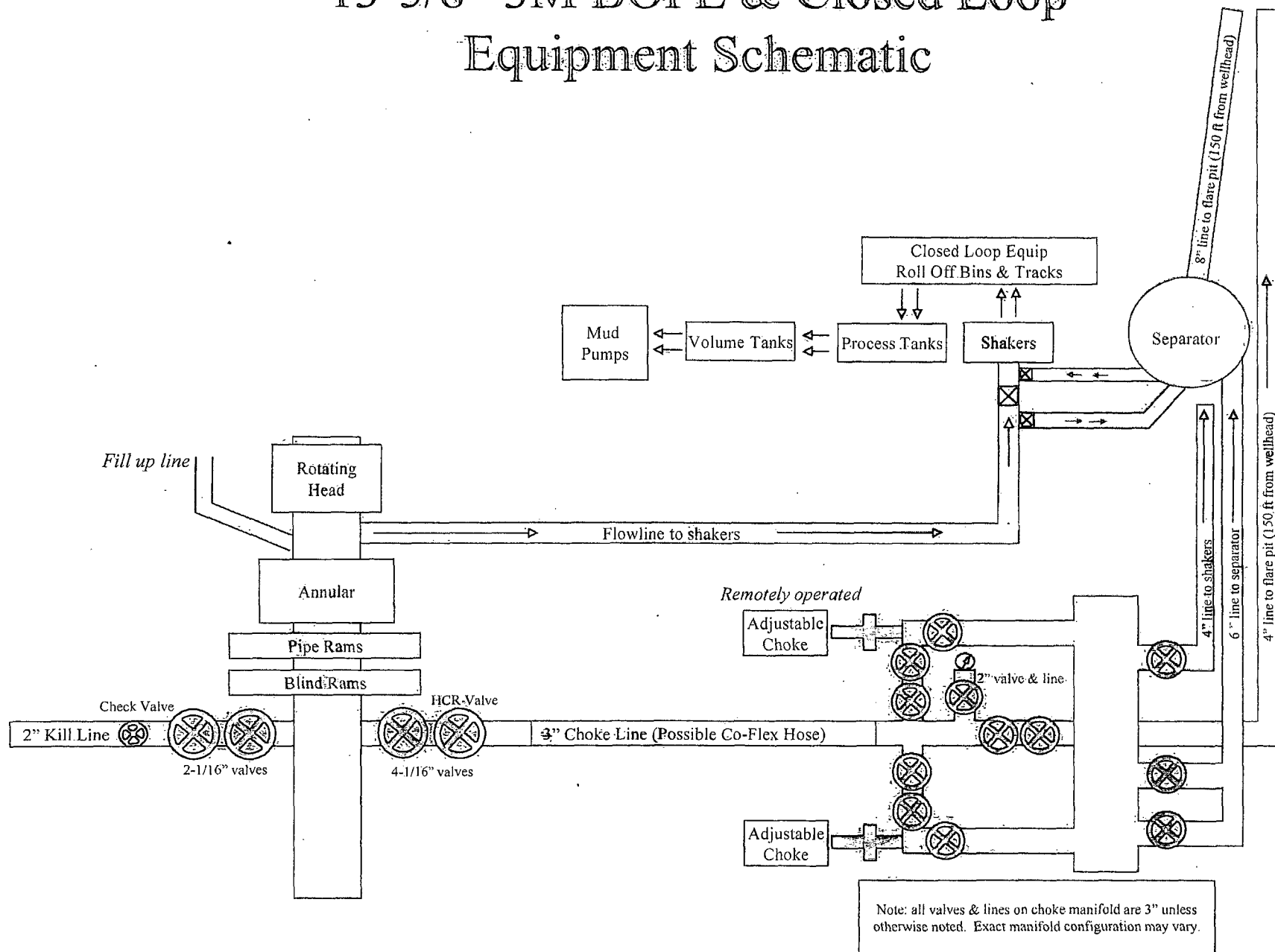
After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

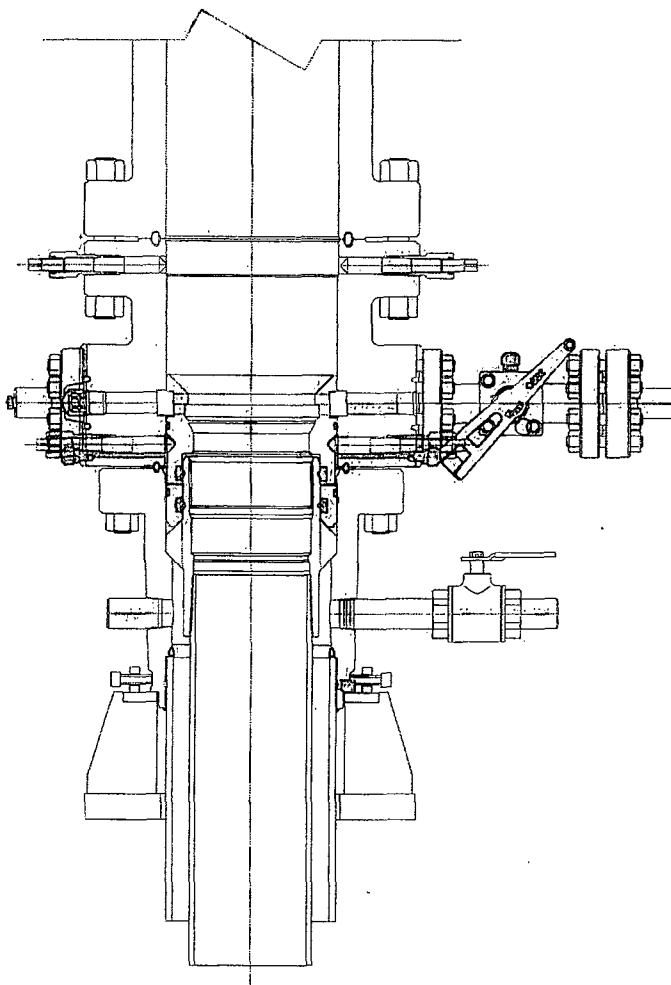
After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

See attached schematic.

# 13-5/8" 3M BOPE & Closed Loop Equipment Schematic





PRIMARY MODE

**DEVON ENERGY**

ARTESIA  
S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT  
F18648  
REF: DM100161737  
DM100151315

**PRIVATE AND CONFIDENTIAL**

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**REVISIONS DESCRIPTION**

|   |          |
|---|----------|
| A | 05-08-13 |
| B | 1-22-14  |
| C | 5-13-14  |


SURFACE WELLHEAD LAYOUT  
UNIHEAD, UH-1, SOW,  
DEVON ENERGY, ODESSA

|                 |             |          |
|-----------------|-------------|----------|
| DESIGNED BY     | K. VU       | 05-08-13 |
| DRAFTING REVIEW | Z. MARQUEZ  | 05-08-13 |
| DESIGN REVIEW   | K. TAHA     | 05-08-13 |
| APPROVED BY     | R. HAMILTON | 05-08-13 |

**FMC Technologies**

DRAWING NUMBER  
DM100161771-2A

QUOTE LAYOUT  
F18648  
REF: DM100161737  
DM100151315

| PRIVATE AND CONFIDENTIAL   |  | REVISIONS | DESCRIPTION  |               |             | DM10016171-2B |   |
|--|--|-----------|--|---------------|-------------|---------------|---|
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|  |  | B         | 1-22-14  |               |             |               |   |
|  |  | C         | 5-13-14  |               |             |               |   |
|  |  |           |  |               |             |               |   |
|  |  |           | SURFACE WELLHEAD LAYOUT<br>UNIHEAD, UH-1, SOW,<br>DEVON ENERGY, ODESSA |               |             |               |   |
|  |  |           |  | DRAWN BY      | K. VU       | 05-08-13      |  |
|  |  |           |  | DRAWING TITLE | Z. MARQUEZ  | 05-08-13      |   |
|  |  |           |  | DESIGN PER    | K. TAHA     | 05-08-13      |   |
|  |  |           |  | APPROVED BY   | R. HAMILTON | 05-08-13      | DRAWING NUMBER  |
|  |  |           |  |               |             |               | DM10016171-2B   |

PECOS DISTRICT  
CONDITIONS OF APPROVAL

|                       |                                      |
|-----------------------|--------------------------------------|
| OPERATOR'S NAME:      | Devon Energy Production Co. LP       |
| LEASE NO.:            | NM-34850                             |
| WELL NAME & NO.:      | Malachite 22 Federal #2H             |
| SURFACE HOLE FOOTAGE: | 330' FNL & 1465' FWL                 |
| BOTTOM HOLE FOOTAGE:  | 330' FNL & 1980' FWL                 |
| LOCATION:             | Section 22, T. 19 S., R. 33 E., NMPM |
| COUNTY:               | Lea County, New Mexico               |
| API:                  | 30-025-40389                         |

**I. DRILLING**

**A. DRILLING OPERATIONS REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness: .

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. **Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe and a Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated 500 feet prior to drilling into the Bone Spring formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

## **B. CASING**

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash

Possible lost circulation in the Capitan Reef if present.

Possible water and brine flows in the Artesia and Salado groups.

1. The 13-3/8 inch surface casing shall be set at **approximately 1515 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

**Production Casing Option #1:**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

**Cement Option #1 (Single Stage):**

- ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.



### **Cement Option #2:**

Operator has proposed DV tool at depth of 6500', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve approved top of cement on the next stage.

b. Second stage above DV tool:

- ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

### **Production Casing Option #2:**

4. The minimum required fill of cement behind the 7 X 5-1/2 inch production casing is:

### **Cement Option #1 (Single Stage):**

- ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
  - f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

**D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**E. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**JAM 111814**