

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

**HOBBS OCD**

FORM 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.*

**JAN 07 2014**

|  |
|--|
| 5. Lease Serial No.<br>NMNM27508                   |
| 6. If Indian, Allottee or Tribe Name               |
| 7. If Unit or CA/Agreement, Name and/or No.        |
| 8. Well Name and No.<br>WILDER FEDERAL AC 29 5H    |
| 9. API Well No.<br>30-025-41509                    |
| 10. Field and Pool, or Exploratory<br>BONE SPRINGS |
| 11. County or Parish, and State<br>LEA COUNTY, NM  |

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

**RECEIVED**

|  |  |
|--|--|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other |  |
| 2. Name of Operator<br>CONOCOPHILLIPS  | Contact: KRISTINA MICKENS<br>E-Mail: kristina.mickens@conocophillips.com |
| 3a. Address<br>600 N DAIRY ASHFORD P-10-4056<br>HOUSTON, TX 77079  | 3b. Phone No. (include area code)<br>Ph: 281-206-5282                    |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br>Sec 29 T26S R32E NENE 724FNL 877FEL                    |  |

**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<br>Change to Original A<br>PD |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
|  | <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 recomplete 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 recompletion 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.)

ConocoPhillips respectfully submits the attached revised drill plan procedure. Significant changes are:

- 7" Intermediate 2 string has been removed.
- 4-1/2" liner with ?sleeves & packers? has been removed.
- 5-1/2" long string has been added from surface to TD.
- Cement has been added from the set depth of the long string to 500ft. inside the 9-5/8" shoe with an optional DV tool & packer at 5500ft.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

We are also requesting to amend the well name from Wilder Federal 29 5H to Wilder Federal AC 29 5H

Please see attached the complete drill plan, directional plan and revised C-102.

|   |   |
|---|---|
| 14. I hereby certify that the foregoing is true and correct.<br><b>Electronic Submission #228091 verified by the BLM Well Information System<br/>For CONOCOPHILLIPS, sent to the Hobbs<br/>Committed to AFMSS for processing by JOHNNY DICKERSON on 12/05/2013 ()</b> |   |
| Name (Printed/Typed) KRISTINA MICKENS   | Title AUTHORIZED REPRESENTATIVE                                   |
| Signature (Electronic Submission)   | Date 11/26/2013   |
| <b>THIS SPACE FOR FEDERAL OR STATE OFFICE USE</b>   |   |
| Approved By _____   | Title _____<br>Date <b>JAN 7 2014</b>                             |
| 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 <b>BUREAU OF LAND MANAGEMENT<br/>CARLSBAD FIELD OFFICE</b> |

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.

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

**JAN 08 2014**

HOBBS OCD

JAN 07 2014

RECEIVED

DISTRICT I  
1025 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6161 Fax: (575) 393-6720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 478-3460 Fax: (505) 478-3462

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

|                            |                                       |                                       |
|----------------------------|---------------------------------------|---------------------------------------|
| API Number<br>30-025-41509 | Pool Code<br>97838                    | Pool Name<br>JENNINGS; BS UPPER SHALE |
| Property Code<br>39470     | Property Name<br>WILDER FEDERAL AC 29 | Well Number<br>5H                     |
| OGRD No.<br>217817         | Operator Name<br>CONOCO PHILLIPS      | Elevation<br>3136'                    |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| A             | 29      | 26 S     | 32 E  |         | 724           | NORTH            | 877           | EAST           | LEA    |

Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P             | 29      | 26 S     | 32 E  |         | 330           | SOUTH            | 350           | EAST           | LEA    |

|                        |                 |                    |           |
|------------------------|-----------------|--------------------|-----------|
| Dedicated Acres<br>160 | Joint or Infill | Consolidation Code | Order No. |
|------------------------|-----------------|--------------------|-----------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

**SURFACE LOCATION**

Lat - N 32°01'07.92"  
Long - W 103°41'29.17"  
NMSPC - N 371193.3  
E 740278.8  
(NAD-83)

Lat - N 32°01'07.47"  
Long - W 103°41'27.48"  
NMSPC - N 371136.2  
E 699091.5  
(NAD-27)

**OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

*Kristina Mickens* 1-26-13  
Signature Date

KRISTINA MICKENS  
Printed Name  
Kristina.Mickens@ConocoPhillips.com  
Email Address

**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

FEBRUARY 2013  
Date Surveyed

GARY L. JONES  
Signature and Seal of Professional Surveyor 7977

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 28237

Wilder Federal AC 29-5H

9-5/8" Intermediate Casing Collapse Exception

The 9-5/8" 36# J-55 LTC would not be at risk of collapse when set as intermediate casing at approximately 4650'. Our reasons are as follows:

1. The 9-5/8" intermediate casing for this well would not be subject to the production collapse load case of being pumped off to zero pressure on the inside by beam pump or ESP production pumping the fluid level down. The 9-5/8" casing would be isolated from the beam pumping production collapse load case by the production casing that would be run.
2. If loss of circulation occurs during the drilling phase while drilling below the 9-5/8" intermediate casing, we would expect the fluid level would fall no further than 2200' below the surface of ground before reaching hydrostatic balance with the pressure of the loss zone. Our anticipated maximum mud weight for drilling below the 9-5/8" intermediate casing is 9.3 ppg, and our experience has been that we have not had severe losses with this mud weight in our previous wells in this area.
3. The 9-5/8" casing will be filled with mud while running it by filling it at least once each 30 joints (1260').

**DRILLING PLAN**

|                |                       |                       |                |     |     |              |
|----------------|-----------------------|-----------------------|----------------|-----|-----|--------------|
| PROSPECT/FIELD | Bonespring/Red Hills  | COUNTY/STATE          | Lea County, NM |     |     |              |
| OWNERS         | ConocoPhillips        | LEASE                 |                |     |     |              |
| WELL NO.       | Wildor Federal 29 #5H | FNL                   | FSL            | FEL | FWL |              |
| LOCATION       |                       | Surface Location:     | '724           | 877 |     |              |
| EST. T.D.      | Leg #1 13,676' MD     | Bottom Hole Location: | 330            | 350 |     | SECTION 29   |
|                |                       | GROUND ELEV.          |                |     |     | 3,136' (est) |

PROGNOSIS: Based on 3,161' KB(est)

| Marker                         | TVD     | S.S. Depth |
|--------------------------------|---------|------------|
| Quaternary                     | Surface |            |
| Rustler                        | 0.94'   | 2,214'     |
| Delaware Top                   | 4,331'  | -1,150'    |
| Ford Shale                     | 3,230'  | -1,289'    |
| Bone Spring                    | 8,153'  | -5,034'    |
| Bone Spring 1st Carbonate Top  | 8,485'  | -5,304'    |
| Bone Spring 1st Carbonate Base | 8,520'  | -5,350'    |
| Avalon A Shale Top             | 8,725'  | -5,584'    |
| Avalon A Shale Base            | 8,920'  | -5,759'    |

LOGS:

| Open Hole: | Type | Interval    |
|------------|------|-------------|
| GR-MWD     |      | 13676-8408' |

DEVIATION:

|                |                         |
|----------------|-------------------------|
| Surf.          | 12" max, svy every 900' |
| Int 1/2: Pilot | 3" max, svy every 200'  |
| Int 2: Curve   | 92" max, svy every 30'  |
| Prod.          | 92" max, svy every 200' |

CORES:

No core.

SAMPLES:

| Mudlogging: | Start | End | Remarks                          |
|-------------|-------|-----|----------------------------------|
| Two-Min     | 1000' | TD  | Vertical and Horizontal sections |

BOP: H&R 456-BOPE (With Rotating Head)

GOP Category 3 Well Control Requirements  
 13-5/8"-10Mpsi Annular Ram  
 13-3/8"-10Mpsi Blind Ram  
 13-3/8"-10Mpsi Cross / Choke & Kill Lines  
 13-3/8"-10M psi Pipe Ram  
 13-3/8"-10Mpsi Spacer Spool

Dip Rate: Slight Up Dip. Max. Anticipated BHP: -0.65 psi/ft

| MUD:          | Interval    | Type                | Max. MW | Vis   | WL  | Remarks |
|---------------|-------------|---------------------|---------|-------|-----|---------|
| Surface:      | 0-1000'     | Acquagel - Brnd Mud | 8.9     | 32-38 | NC  |         |
| Intermediate: | 1000-4470'  | "Brine              | 10      | 28-30 | 5-8 |         |
| Production:   | 4470-13676' | Cur Brine           | 9.3     | 30-40 | <5  |         |

| CASING:       | Size    | WL psi | Hole    | Depth   | Cement                 | WOC    | Remarks |
|---------------|---------|--------|---------|---------|------------------------|--------|---------|
| Surface:      | 13-3/8" | 54.5   | 17-1/2" | 200'    | To Surface             | 181psi |         |
| Intermediate: | 9-5/8"  | 36     | 12-1/4" | 4,650'  | To Surface             | 101psi |         |
| Production:   | 9-1/2"  | 17     | 8-3/4"  | 13,676' | 600' Intv Intermediate | 101psi |         |

DIRECTIONAL PLAN

|               | MD      | TVD    | AZ     | Remarks   |
|---------------|---------|--------|--------|---|
| Surface:      | N/A     | N/A    | 05     | Directional Company: DDC<br>Vertical Build Rate: 1110' /100'<br>Tan Leg Turn Rate: 0.0' /100' |
| Vertical KOP: | 8,408'  | 8,338' | 179.14 |   |
| End Build:    | 8,227'  | 8,859' | 179.14 |   |
| Target:       | N/A     | N/A    | 179.14 |   |
| TD:           | 13,676' | 8,855' | 179.14 |   |

Comments: Surveys will be taken in intermediate section with INC ONLY or MWD tools. Directional surveys will be taken with MWD Tool.

Prep By: Jason Levinson Date: 11/22/13 Doc: REV: 1.1

Bonespring/Red Hills  
 ConocoPhillips  
 Wilder Federal 29 #5H

**Surface Casing:**

|                                   |            |
|-----------------------------------|------------|
| Surface Casing Depth (Ft)         | 790        |
| Surface Casing O.D. (In.)         | 13:375     |
| Surface Casing ID (In)            | 12:715     |
| Hole O.D. (In)                    | 17:5       |
| Excess (%)                        | 100%       |
| <b>Volume Tail (Sx)</b>           | <b>320</b> |
| Yield Tail (Cu. Ft./Sx)           | 1.33       |
| Yield Lead (Cu. Ft./Sx)           | 1:75       |
| Shoe Joint (Ft)                   | 40         |
| Shoe Volume (Cu. Ft)              | 35.3       |
| Tail feet of cement               | 300        |
| Calculated Total Volume (Cu. Ft.) | 1,133      |
| Calc. Tail Volume (Cu. Ft.)       | 417        |
| Calc. Lead Volume (Cu. Ft.)       | 681        |
| <b>Calc. Lead Volume (Sx)</b>     | <b>390</b> |

**Intermediate #1 Casing (Lead):**

|                                 |             |
|---------------------------------|-------------|
| Intermediate Casing O.D. (In.)  | 9.625       |
| Intermediate Casing ID (In)     | 8:835       |
| Hole O.D. (In)                  | 12:25       |
| Excess (%)                      | 150%        |
| cap 12-1/4 - 9-5/8"             | 0.0558      |
| Calculated fill:                | 4,150'      |
| Yield Lead (Cu. Ft./Sx)         | 2:47        |
| Calculated Total Lead (Cu. Ft.) | 3,249       |
| <b>Calc. Lead Volume (Sx)</b>   | <b>1320</b> |

**Production Casing Stage 1 (Lead):**

|                                     |            |
|-------------------------------------|------------|
| Intermediate Casing O.D. (In.)      | 5:500      |
| Intermediate Casing ID (In)         | 4:892      |
| Hole O.D. (In)                      | 8:75       |
| Excess (%)                          | 135%       |
| cap 5-1/2" - 8-3/4" bls/ft          | 0.0450     |
| cap 5-1/2" - 9-5/8" bls/ft          | 0.0464418  |
| Calculated fill: (500' into 9-5/8") | 4,256      |
| Yield Lead (Cu. Ft./Sx)             | 3:22       |
| Calculated Total Lead (Cu. Ft.)     | 1,458      |
| <b>Calc. Lead Volume (Sx)</b>       | <b>460</b> |

**Production Casing Stage 2 (Lead):**

|                                     |            |
|-------------------------------------|------------|
| Intermediate Casing O.D. (In.)      | 5:500      |
| Intermediate Casing ID (In)         | 4:892      |
| Hole O.D. (In)                      | 8:75       |
| Excess (%)                          | 135%       |
| cap 5-1/2" - 8-3/4" bls/ft          | 0.0450     |
| cap 5-1/2" - 9-5/8" bls/ft          | 0.0464418  |
| Calculated fill: (500' into 9-5/8") | 4,250      |
| Yield Lead (Cu. Ft./Sx)             | 3:22       |
| Calculated Total Lead (Cu. Ft.)     | 466        |
| <b>Calc. Lead Volume (Sx)</b>       | <b>150</b> |

5,500'

**Intermediate #1 Casing (Tail):**

|                                |        |
|--------------------------------|--------|
| Intermediate Casing O.D. (In.) | 9-5/8" |
| Production Casing ID (In)      | 8:835  |
| Hole O.D. (In)                 | 12:25  |
| Excess (%)                     | 200%   |
| cap 12-1/4 - 9-5/8"            | 0.0558 |
| Calculated fill:               | 500'   |
| Yield Tail (Cu. Ft./Sx)        | 1:33   |
| Shoe Joint (Ft)                | 40     |
| Shoe Volume (Cu. Ft)           | 17.0   |
| Calc. Tail Volume (Cu. Ft.)    | 330    |

**Required Tail Volume (Sx)** **250**

**Production Casing Stage 1 (Tail):**

|                                  |             |
|----------------------------------|-------------|
| Intermediate Casing O.D. (In.)   | 5:500       |
| Intermediate Casing ID (In)      | 6:184       |
| Hole O.D. (In)                   | 8:75        |
| Excess (%)                       | 135%        |
| cap 5-1/2" - 8-3/4" bls/ft       | 0.0450      |
| cap 5-1/2" - 9-5/8" bls/ft       | 0.0464418   |
| Calculated fill:                 | 5,268       |
| Yield Lead (Cu. Ft./Sx)          | 1:27        |
| Calculated Total Tail (Cu. Ft.)  | 1,855       |
| <b>Required Tail Volume (Sx)</b> | <b>1460</b> |

4050



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## Wilder Federal Wells

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Levinson, Jason A <Jason.A.Levinson@conocophillips.com>

Mon, Dec 30, 2013 at 12:16 PM

To: "jamason@blm.gov" <jamason@blm.gov>

Cc: "Mickens, Kristina" <Kristina.Mickens@conocophillips.com>, "Ramos, Roger R"

<Roger.R.Ramos@conocophillips.com>, "Gamer, Justin B" <Justin.B.Gamer@conocophillips.com>

Jennifer,

Please refer to the following for your questions regarding the DV tool placement and cement volumes for the following wells:

### Wilder Federal 29-2H

#### Stage 1

510sx lead @ 3.19 ft<sup>3</sup>/sx

1368sx tail @ 1.27 ft<sup>3</sup>/sx

Both volumes are proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4300ft.

13597' - 3800'

Optional DV tool at 5500ft.

#### Stage 2

190sx lead @ 3.19 ft<sup>3</sup>/sx

Volume is proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4300ft.

5500' - 3800'

### Wilder Federal 29-5H

#### Stage 1

460sx lead @ 3.19 ft<sup>3</sup>/sx

1415sx tail @ 1.27 ft<sup>3</sup>/sx

Both volumes are proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4650ft.

13676' - 4150'

Optional DV tool at 5500ft.

### Stage 2

150sx lead @ 3.19 ft<sup>3</sup>/sx

Volume is proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4650ft.

5500' - 4150'

### Wilder Federal 29-6H

#### Stage 1

450sx lead @ 3.19 ft<sup>3</sup>/sx

1417sx tail @ 1.27 ft<sup>3</sup>/sx

Both volumes are proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4420ft.

13638' - 3920'

Optional DV tool at 5500ft.

#### Stage 2

170sx lead @ 3.19 ft<sup>3</sup>/sx

Volume is proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4420ft.

5500' - 3920'

As with the Wilder Federal 28-3H, we will determine the need for the stage tool while drilling the 8-3/4" section if any losses are encountered. I will also be working the Wilder Federal 28-8H as soon as possible.

## PECOS DISTRICT CONDITIONS OF APPROVAL

|                              |  |
|------------------------------|--|
| <b>OPERATOR'S NAME:</b>      | <b>ConocoPhillips Company</b>              |
| <b>LEASE NO.:</b>            | <b>NMNM-27508</b>                          |
| <b>WELL NAME &amp; NO.:</b>  | <b>Wilder Federal 29 AC 5H</b>             |
| <b>SURFACE HOLE FOOTAGE:</b> | <b>0724' FNL &amp; 0877' FEL</b>           |
| <b>BOTTOM HOLE FOOTAGE:</b>  | <b>0330' FSL &amp; 0350' FEL</b>           |
| <b>LOCATION:</b>             | <b>Section 29, T. 26 S., R 32 E., NMPM</b> |
| <b>COUNTY:</b>               | <b>Lea County, New Mexico</b>              |
| <b>API:</b>                  | <b>30-025-41509</b>                        |

### 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. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** 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. 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.).**

**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.**

**Possible water flows in the Salado, Castile, Delaware, and Bone Spring.  
Possible lost circulation in the Red Beds, Delaware, and Bone Spring.**

1. **The 13-3/8 inch surface casing shall be set at approximately 1000 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.**
  - 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.

**Formation below the 13-3/8" shoe to be tested according to Onshore Order**

**2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

**Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.**

- 2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at appoximatley **4470** feet, is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

**Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.**

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

**Cement Option #1:**

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 5500'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

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. **Excess calculates to 21% - Additional cement may be required.**

4. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, 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. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - 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.
  - 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.

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