Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

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.

HOBBS OCD

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

DEC 30 2013

RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM27508
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No. WILDER FEDERAL 28 3H
2. Name of Operator CONOCOPHILLIPS COMPANY Contact: KRISTINA MICKENS E-Mail: kristina.mickens@conocophillips.com	9. API Well No. 30-025-40501
3a. Address 600 N DAIRY ASHFORD P-10-4056 HOUSTON, TX 77079 3b. Phone No. (include area code) Ph: 281-206-5282	10. Field and Pool, or Exploratory BONE SPRINGS; UPPER SHALE
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 28 T26S R32E 224FNL 1544FWL	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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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:

1. An optional DV Tool/Packer at 5300ft
2. The yield of the lead cement on the 7" string has been revised to reflect 9.5ppg

We are making these changes in anticipation of any potential loss circulation zones that may or may not occur while drilling the 8-3/4" hole section.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #229957 verified by the BLM Well Information System
For CONOCOPHILLIPS COMPANY, sent to the Hobbs
Committed to AFMSS for processing by KURT SIMMONS on 12/18/2013 ()

Name *(Printed/Typed)* KRISTINA MICKENS — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 12/18/2013

APPROVED
DEC 23 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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

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 ****

DEC 31 2013

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills			COUNTY/STATE		Lea County, NM
OWNERS	ConocoPhillips			LEASE		
WELL NO.	Wilder Federal AC COM 28 #3H	FNL	FSL	FEL	FWL	
LOCATION	Surface Location:	224			1544	
	Bottom Hole Location:		330		1544	
EST. T.D.	Leg #1 16,190' MD			GROUND ELEV.		3,168' (est)
					RKB	3,193' (est)

PROGNOSIS: Based on 3,193' KB(est)

Marker	TVD	S.S. Depth
Quaternary	Surface	
Rustler	928	2,265
Salado	1,023	2,170
Castile	2,670	523
Delaware Top	4,426	-1,233
Ford Shale	4,513	-1,320
Olds	4,550	-1,357
Cherry Top	5,378	-2,185
Bone Spring	8,240	-5,047
Bone Spring 1st Carbonate Top	8,500	-5,307
Bone Spring 1st Carbonate Base	8,550	-5,357
Avalon A Shale Top	8,738	-5,545
Avalon A Shale Base	8,952	-5,759
Avalon B Zone Top	8,952	-5,759
Avalon B Zone Base	9,146	-5,953
Avalon C Shale Top	9,146	-5,953
Avalon C Shale Base (Should not penetrate	9,384	-6,191

LOGS:

Type	Interval
Open Hole:	
GR-MWD	18190- 8,710'

DEVIATION:

Surf: 3° max., avy every 500'
Int1/2: 3° max., avy every 90'
Prod:

DST'S: None

CORES: No core.

SAMPLES:

	Start	End	
Mudlogging:			
Two-Man:		950 TD	Vertical and Horizontal sections

BOP:

COP Category 3 Well Control Requirements
HnP486 BOPE: 13-5/8"-5Mpsi Annular
(With Rotating Head) 13-3/8"-5Mpsi Blind Ram
13-3/8"-5Mpsi Cross / Choke & Kill Lines
13-3/8"-5M psi Pipe Ram,
13-3/8"-5Mpsi Spacer Spool

Dip Rate: Slight Down Dip

Max. Anticipated BHP: 0.65 psi/ft

Surface Formation:

MUD:	Interval	Type	Max. MW	Vis	WL	Remarks
Surface:	0'-950'	Aquagel - Spud Mud	9.3	32-36	NC	
Intermediate 1:	950'-4350'	Brine	10.5	28-30	5-8	
Intermediate 2:	4560'-9673'	Cut Brine	9.5	30-39	<=4	
Production:	9673'-15888'	Cut Brine	9.8	30-40	<=5	

CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54.5	17-1/2	950'	To Surface	18hrs	
Intermediate 1:	9-5/8"	36	12-1/4"	4,560'	To Surface	18hrs	
Intermediate 2:	7"	29	8-3/4"	9,606'	500' into intermediate	18hrs	
Production Liner:	4-1/2"	11.6	6 1/8"	16,190'	Uncemented	0	40-42 Stages Sleeves & Packers

or iBall System. Completion Selection will depend on production results

DIRECTIONAL PLAN

	MD	TVD	AZ
Surface:	N/A	N/A	180
Vertical KOP :	8,710'	8,697'	180
End Build :	9,606'	9,270'	180
Tangent:	N/A	N/A	180
Turn:	N/A	N/A	180
TD:	16,190'	9,316'	180

Directional Company: DDC or Weatherford
Vertical Build Rate: 10.0 °/100'
Tan Leg Turn Rate: 0.0 °/100'

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

Prep By: Katia Filina Date: 1/29/13 Doc: REV.3

Wilder Federal AC COM 28 #3H

Surface Location: 0 0 Bottom Hole Location 330 0

SAP Networrk:	#REF!
Inv. Handler ID:	#REF!
Drilling:	#REF!
Completion/Facility:	#REF!
Total:	

Permit:	
NDIC #:	#REF!
API #:	#REF!
Fed #:	#REF!
AFE#	#REF!

Directional:

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP :	8710	8597	0	0	0	180
End Build :	9,606'	9,270'	0	0	0	180.0
Tangent:	N/A	N/A	0	0	0	180.0
Turn:	N/A	N/A	0	0	0	180.0
TD:	16,190'	9,316'	0	0	0	180.0

Formation	TVD
	SS TVD
Quaternary	2,265
Rustler	2,170
Salado	523
Castile	-1,233
Delaware Top	-1,320
Ford Shale	-1,357
Olds	-2,185
Cherry Top	-5,047
Bone Spring	-5,307
Bone Spring 1st Carbonate Top	-5,357
Bone Spring 1st Carbonate Base	-5,545
Avalon A Shale Top	-5,759
Avalon A Shale Base	-5,759
Avalon B Zone Top	-5,953
Avalon B Zone Base	-5,953
Avalon C Shale Top	-6,191
Avalon C Shale Base (Should not penetrate)	

KOP (10°/100') 8,710

Landing Point @ 9,606 ft MD 9,270 ft TVD

CASING

Surface

950' 13-3/8" 54.5# J-55 STC

Intermediate

4,560' 36# J55 LTC

5,307'

Optional DV Tool/ACP Packer

TOL 45° INC 9107' MD/9057' TVD

Intermediate 2

9,606' 7" 29# P110 BTC

Drill Fluids

Surf. Hole:
FW gel mud:
9.3#
w/ high vis sweeps

Interm 1
Brine
10.5#
40-50 Vis
5-8 WL

Prod Hole:
Cut Brine
9.8#
28-36 Vis
<=5 WL

high vis sweeps as required.

Cement

Data. These numbers are only estimates.

Surface:
320 Sx Lead
520 Sx Tail

Based on 17-1/2" OH, with 100% excess

Intermediate
1,290 Sx Lead
250 Sx Tail

Based on 8.75 in. Hole with 200% excess

Production
250 Sx Lead
130 Sx Tail

Based on 0.00 in. Hole with 120% excess

Slurry Top
500' into 9-5/8".

Analysis

Mudlogging:
Two-Men:
On @ 9507'

TD

Open Hole:
0
0
GR-MWD
8710
TD @ 16,190' MD

Cased Hole Logs:
None.

Completion:
Open hole Sliding Sleeves & Packers

Frac:
40-42 stages or iBall

Production
16,190' MD 4-1/2" 11.6# P-110 BTC
9,316' TVD

TD @ 16,190' MD
9,316' TVD

Max. Anticipated BHP: 0.65 psi/ft

Notes for Well:

Refer to the drilling program for detailed casing, drilling fluids, bit etc.
Drill 17 1/2" surface hole with conventional BHA and INC Survey Tool or MWD, RIH 13 3/8" CSG and cement it up to surface.
Install well head and NU BOP. CSG Pressure Test 1500psi and FIT 12.5ppg
Mud logger (two-man) to be on at surface casing depth of 950'
Drill 12 1/4" Intermediate #1 hole with Motor + MWD or Vertical Seeking Scout Tool+Motor and INC Survey Tool or MWD till 4560'
RIH 9 5/8" CSG and cement it up to surface. Pressure Test 2500psi.
Drill 8 3/4" Intermediate #2 hole with Packed Hole BHA (Straight Motor+MWD) or Directional Motor+MWD till 8710ft
Run Gyro till KOP if run INC Tool before. If run MWD, consider Gyro optional
Begin GR-MWD service after KOP 8710'
The 8 3/4" curve will be drilled with ~ 16°/100' build rate and 180° Azimuth with Motor+MWD or Rotary steerable till 9606' MD/ 9270' TVD
Run 7" CSG from surface to 9606' and cement it 500ft into 9 5/8". Pressure Test 3500psi
The 6 1/8" Lateral will be drilled with PDM+MWD or Rotary Steerable
TOOH to change Bit and/ or BHA.
The 6 1/8" Lateral will be drilled with PDM+MWD or RSS to TD 16190' MD/ 9316' TVD holding 89.9° INC 180° Azim
POOH Backreaming after circulating the hole until clean returns.
RIH 4 1/2" Liner with around 40-42 Stages of Open Hole Completion: Packers and Sliding Sleeves or iBall system
Displace cement with 5% KCL Brine.
POOH laying down 4in Drill Pipe
ND BOPE. Install 10M tubing head. Test connection
Release drilling rig.

Vick Harvey
Geologist
Date 1/29/2013

Katia Filina
Drilling Engineer
Date 1/29/2013

Bonespring/Red Hills
ConocoPhillips
Wilder Federal AC COM 28 #3H

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Surface Casing:	
Surface Casing Depth (Ft)	950
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	100%
Volume Tail (Sx)	320
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.)	1,355
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	903
Calc. Lead Volume (Sx)	520

Intermediate #1 Casing (Lead):	
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.921
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	4,060'
Yield Lead (Cu. Ft./Sx)	2.47
Calculated Total Lead (Cu. Ft.)	3,179
Calc. Lead Volume (Sx)	1290

Intermediate #1 Casing (Tail):	
Intermediate Casing O.D. (In.)	9-5/8"
Production Casing ID (In)	8.921
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)	17.4
Calc. Tail Volume (Cu. Ft.)	331
Required Tail Volume (Sx)	250

Intermediate #2 Casing (Lead):	
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	115%
cap 5-1/2" - 8-3/4" bls/ft	0.0268
cap 5-1/2 - 9-5/8" bls/ft	0.02823
Calculated fill: (500' into 9-5/8")	4,546'
Yield Lead (Cu. Ft./Sx)	3.2
Calculated Total Lead (Cu. Ft.)	786
Calc. Lead Volume (Sx)	250
	8,606
	4060

Intermediate #2 Casing (Tail):	
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	120%
cap 5-1/2" - 8-3/4" bls/ft	0.0268
cap 7 - 9-5/8" bls/ft	
Calculated fill:	1,000'
Yield Lead (Cu. Ft./Sx)	1.39
Calculated Total Tail (Cu. Ft.)	180
Required Tail Volume (Sx)	130

Wilder Federal AC Com 28-3H Sundry

Levinson, Jason A <Jason.A.Levinson@conocophillips.com> Mon, Dec 23, 2013 at 10:24 AM
To: "jamason@blm.gov" <jamason@blm.gov>

Jennifer,

It was nice to meet you last week! I wanted to follow up from our conversation last week regarding the cement job on the 7" casing on the Wilder Federal AC Com 28-3H. The job proposes the following:

Stage 1

300sx lead @ 3.19 ft^3/sx

146sx tail @ 1.39 ft^3/sx

Both volumes are proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4560ft.

9606' - 4060'

Optional DV tool at 5300ft.

Stage 2

90sx lead @ 3.19 ft^3/sx

Volume is proposed with 35% excess

Top of cement to 500ft. inside the previous casing shoe at 4560ft.

5300' - 4060'

We will determine the need for the stage tool while drilling the 8-3/4" section if any losses are encountered. Please let me know if you have any questions or concerns.

Happy Holidays!

Jason Levinson | Senior Drilling Engineer
ConocoPhillips Company
600 N Dairy Ashford Rd, P10-05-5006 Houston, TX 77079

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CONOCOPHILLIPS
LEASE NO.:	NM27508
WELL NAME & NO.:	3H WILDER FEDERAL 28
SURFACE HOLE FOOTAGE:	0224' FNL & 1544' FWL
BOTTOM HOLE FOOTAGE	0355' FSL & 1714' FWL Sec. 33, T.26 S., R.32 E.
LOCATION:	Section 28, T.26 S., R.32 E., NMPM
COUNTY:	Eddy County, New Mexico
API:	30-025-40501

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 (H2S) Drilling Plan should 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. This will also be applicable if an un-cemented completion liner is run and a liner top seal, or equivalent, has not been established before the rig move.**

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 of the vertical portion of hole to surface 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 lost circulation in the Red Beds, Delaware, and Bone Spring formations. Possible brine and fresh water flows in the Salado, Castile, Delaware and Bone Spring.

1. The **13-3/8** inch surface casing shall be set at approximately **850** 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 action 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 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 1st intermediate casing 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.

3. The minimum required fill of cement behind the **7** inch 2nd intermediate casing is:

Cement Option #1:

☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification. **Excess calculates to 14% - Additional cement may be required.**

Cement Option #2:

Operator has proposed DV tool at depth of 5300'. 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.

4. Cement not required on the **4-1/2"** casing. **Packer system being used.**

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. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. 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.**

4. 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 results of the test shall be reported to the appropriate BLM office.

   d. 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.**

   e. 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.

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 122313