Form 3160-3
(August 2007)

AT5-11-881

OCD-HOBBS OCD

DEC 0 5 2011

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMLC029405B

6. If Indian, Allotee or Tribe Name:

1a. Type of work: [X] DRILL [ ] REENTER

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

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: Ruby Federal 1 (38653)

2. Name of Operator: ConocoPhillips Company (217817)

9. API Well No.: 30-025- 40393

3a. Address: 3300 N "A" St, Bldg 6 Midland, TX 79705

3b. Phone No. (include area code): (432)688-6913

10. Field and Pool, or Exploratory: Maljamar; Yeso, West

4. Location of Well (Report location clearly and in accordance with any State requirements *)

At surface: 420 FSL 1580 FEL UL O, Sec 17, T 17S, R 32E

At proposed prod. zone:

11. Sec., T. R. M. or Blk. and Survey or Area: Sec. 17, T17S, R32E

14. Distance in miles and direction from nearest town or post office*: 4.5 Miles south of Maljamar, NM

12. County or Parish: Lea

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 420' FSL

16. No. of acres in lease: 1601.9

17. Spacing Unit dedicated to this well: 40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 408' From Michell "B" #10

19. Proposed Depth: 6906'

20. BLM/BIA Bond No. on file: ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 4023' GL

22. Approximate date work will start*: 03/01/2012

23. Estimated duration: 10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: B = M..

Name (Printed/Typed): Brian D Maiorino

Date: 10/10/2011

Title: Regulatory Specialist

Approved by (Signature):

Name (Printed/Typed):

Date: DEC - 1 2011

Title: FIELD MANAGER

Office: CARLSBAD FIELD OFFICE

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2) NSL-6527

*(Instructions on page 2)

Roswell Controlled Water Basin

KZ 01/09/12

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JAN 10 2012

Drilling Plan
ConocoPhillips Company
Maljamar; Yeso, west

Ruby Federal #1

Lea County, New Mexico

1. Estimated tops of geological markers and estimated depths to water, oil, or gas formations:

The ranges of depths for the formation tops, thicknesses, and planned Total Depths for all the wells to be drilled under this Master Drilling Plan are presented in the table below.

The datum for these depths is RKB (which is 14' above Ground Level).

Formations	Top Depths FT MD	Contents
Quaternary	Surface	Fresh Water
Rustler	771	Anhydrite
Salado (top of salt)	955	Salt
Grayburg	3463	Gas, Oil and Water
San Andres	3828	Gas, Oil and Water
Glorieta	5335	Gas, Oil and Water
Paddock	5404	Gas, Oil and Water
Lwr Paddock	5761	Gas, Oil and Water
Blinebry	6200	Gas, Oil and Water
Tubb	6806	Gas, Oil and Water
Deepest estimated perforation	6706	Deepest estimated perforation is ~ 10' above Top of Tubb
Total Depth (maximum)	6906	200' below deepest estimated perforation

All of the water bearing formations identified above will be protected by setting of the 8-5/8" surface casing 25' – 70' into the Rustler formation and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

The targeted oil and gas bearing formations identified above protected by setting of the 5-1/2" production casing 10' off bottom of TD and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

2. Proposed casing program:

Type	Hole Size	Interval MD RKB (ft)		OD	Wt	Gr	Conn	Condition	Safety Factors Calculated per BLM Load Formulas		
	(in)	From	To	(inches)	(lb/ft)				Burst	Collapse	Tension Dry/Buoyant
Cond	20"	0	40' – 85' (30' – 75' BGL)	16"	0.5" wall	B	Line Pipe	New	NA	NA	NA
Alt. Cond	20"	0	40' – 85' (30' – 75' BGL)	13-3/8"	48#	H-40	PE	New	NA	NA	NA
Surf	12-1/4"	0	796'-841'	8-5/8"	24#	J-55	STC	New	7.98	3.63	11 9 / 13.6
Prod	7-7/8"	0	6851'-6896'	5-1/2"	17#	L-80	LTC	New	2.46	1.71	2.81 / 3.32

The casing will be suitable for H_2S Service.

The surface and production casing will be set approximately 10' off bottom and we will drill the hole with a 45' range uncertainty for casing set depth to fit the casing string so that the cementing head is positioned at the floor for the cement job.

The production casing will be set 155' to 200' below the deepest estimated perforation to provide rathole for the pumping completion and for the logs to get deep enough to log the interval of interest.

3. **Proposed cementing program:**

16" or 13-3/8" Conductor:
Cement to surface with rathole mix, ready mix or Class C Neat cement.
(Note: The gravel used in the cement is not to exceed 3/8" dia)
TOC at surface.

8-5/8" Surface Casing:
The intention for the cementing program for the Surface Casing is to:
- Place the Tail Slurry from the casing shoe to 300' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Excess %	Sx	Vol Cuft	Additives	Yield ft^3/sx
Lead	Class C	Surface	478' – 523'	170	350	598	4%Bentonite 2%CaCl2 .125%Polyflake .2% antifoam Excess =130%	1.68
Tail	Class C	478' – 523'	778'-823'	100	200	264	1% CaCl2 Excess = 100%	1.34

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

Note: In accordance with the Pecos District Conditions of Approval, we will Wait on Cement (WOC) for a period of not less than 18 hrs after placement or until at least 500 psi compressive strength has been reached in both the Lead Slurry and Tail Slurry cements on the Surface Casing, whichever is greater.

5-1/2" Production Casing Cementing Program:

The intention for the cementing program for the Production Casing is to:
- Place the Tail Slurry from the casing shoe to a point approximately 200' above the top of the Paddock,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Excess %	Sx	Vol Cuft	Additives	Yield ft^3/sx
Lead	50:50 Poz/C	Surface	5169' – 5299'	15	1000	~~404~~ 2640	10% Bentonite 8 lbs/sx Salt 0.4% Fluid loss additive 0.125% LCM if needed Excess=10% or more if needed	2.64
Tail	Class H	5169' – 5299'	6829'-6874'	10	480	~~91~~ 513	0.2% Fluid loss additive 0.3% Dispersant 0.15% Retarder 0.2% Antifoam Excess=10% or more if needed	1.07

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

Proposal for Option to Adjust Production Casing Cement Volumes:

The production casing cement volumes presented above are estimates based on data from previous wells. We will adjust these volumes based on the caliper log data for each well and our trends for amount of cement returns to surface. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volumes to account for any uncertainty in regard to the hole volume.

4. Pressure Control Equipment:

A 11" 3M system will be installed, used, maintained, and tested accordingly as described in Onshore Oil and Gas Order No. 2.

Our BOP equipment will be:
- o Rotating Head
- o Annular BOP, 11" 3M
- o Blind Ram, 11" 3M
- o Pipe Ram, 11" 3M

See COA TMM

After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. **See Attached BOPE Schematic.**

5. Proposed Mud System

The mud systems that are proposed for use are as follows:

DEPTH	TYPE	Density ppg	FV sec/qt	API Fluid Loss cc/30 min	pH
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud	8.5 – 9.0	28 – 40	N.C.	N.C.
Surface Casing Point to TD	Brine (Saturated $NaCl_2$)	10	29	N.C.	10 - 11
Conversion to Mud at TD	Brine Based Mud ($NaCl_2$)	10	34 – 45	5 – 10	10 - 11

Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. The gases shall be piped into the flare system. Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

6. **Logging, Coring, and Testing Program:**
   a. No drill stem tests will be done
   b. No mud logging is planned, but might possibly be done if it is determined that this data is needed;
   c. No whole cores are planned
   d. The open hole electrical logging program is planned to be as follows:
      - Total Depth to 2500': Resistivity, Density, and Gamma Ray.
      - Total Depth to surface Casing Shoe: Caliper
      - Total Depth to surface, Gamma Ray and Neutron
      - Formation pressure data (XPT) on electric line if needed (optional)
      - Rotary Sidewall Cores on electric line if needed (optional)
      - BHC or Dipole Sonic if needed (optional)
      - Spectral Gamma Ray if needed (optional)

7. **Abnormal Pressures and Temperatures:**

- No abnormal pressures are expected to be encountered.

- Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.

  - The bottom hole pressure is expected to be 8.55 ppg gradient.

- The estimated H_2S concentrations and ROE calculations for the gas in the zones to be penetrated are presented in the table below for the various producing horizons in this area:

FORMATION / ZONE	H2S (PPM)	Gas Rate (MCFD)	ROE 100 PPM	ROE 500 PPM
Grayburg / San Andres (from MCA)	14000	38	59	27
Yeso Group	400	433	34	15

ConocoPhillips will comply with the provisions of Oil and Gas Order # 6

8. **Anticipated starting date and duration of operations:**

Well pad and road constructions will begin as soon as all agency approvals are obtained. Anticipated date to drill these wells begin from early 2012 through the end after receiving approval of the APD.

Attachments:

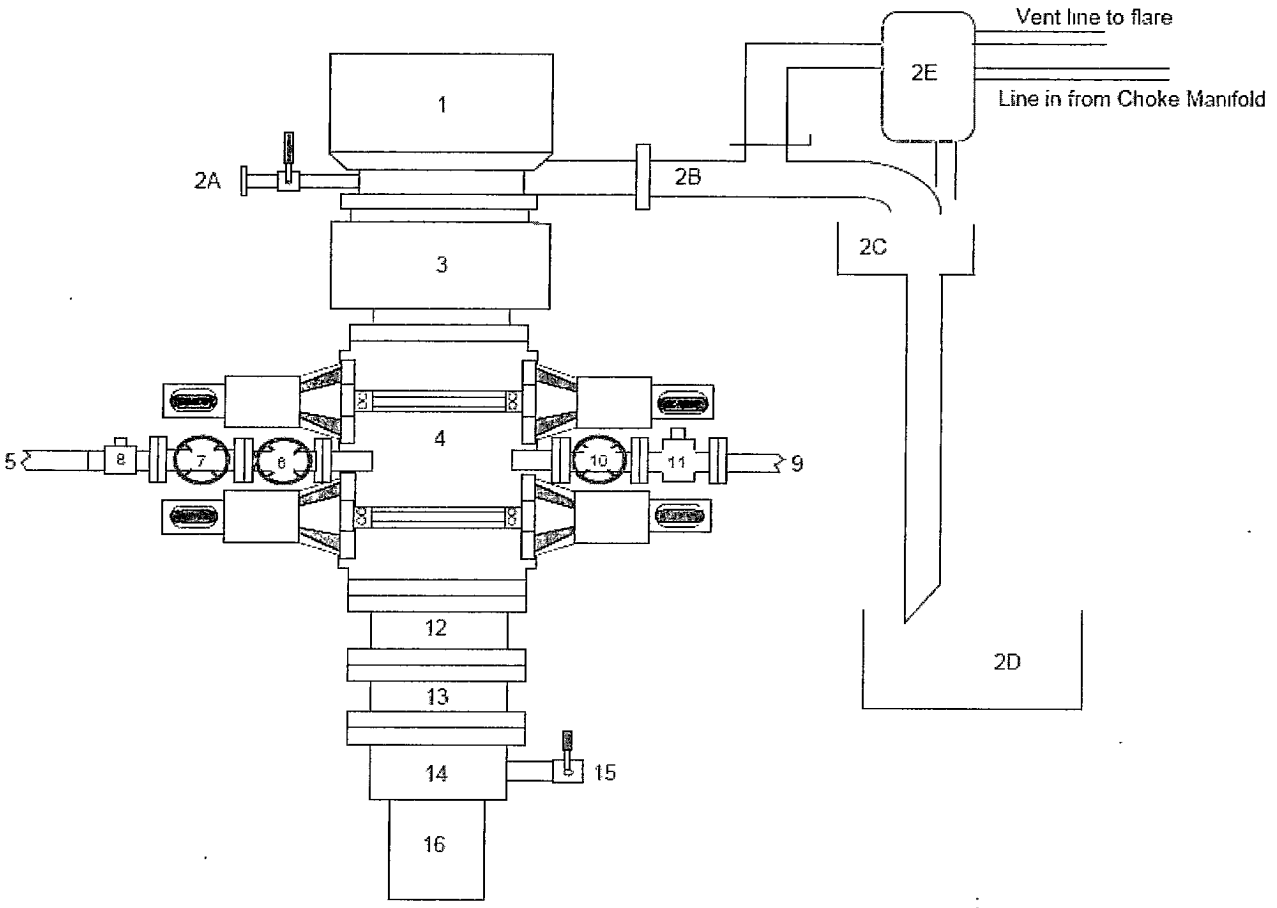
- Attachment # 1 ..... BOP and Choke Manifold Schematic – 3M System
- Attachment # 2 ..... Diagram of Choke Manifold Equipment

Contact Information:

Program prepared by:
James Chen
Drilling Engineer, ConocoPhillips Company
Phone (832) 486-2184
Cell (832) 768-1647
Date: October 7, 2011

Attachment # 1

BLOWOUT PREVENTER ARRANGEMENT

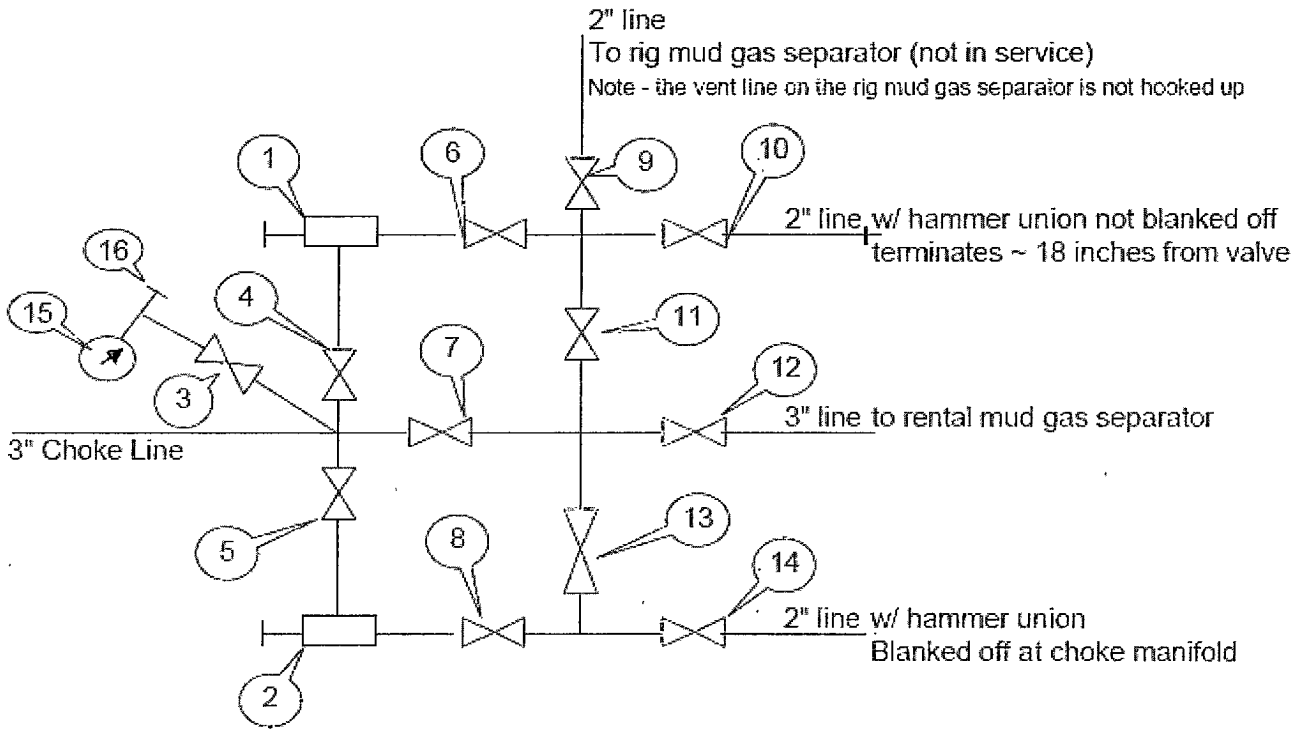


Item	Description
1	Rotating Head (11")
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3000 psi)
4	Double Ram BOP (11", 3000 psi, with Blind Rams in Upper Set and Pipe Rams in Lower Set)
5	Kill Line (2" Flexible Hose, 3000 psi WP)
6	Kill Line Valve, Inner (2-1/6" 3000 / 5000 psi WP)
7	Kill Line Valve, Outer (2-1/16", 3000 / 5000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 / 5000 psi WP
9	Choke Line (3" Steel Line, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP
12	Spacer Spool (11" 3M x 3M)
13	Spacer Spool (11 3M x 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
16	Surface Casing

Drawn by: Steven O. Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 03-Nov-2011

Attachment # 2

CHOKE MANIFOLD ARRANGEMENT



Item	Description
1	Manual Adjustable Choke, 2-1/16", 3M
2	Manual Adjustable Choke, 2-1/16", 3M
3	Gate Valve, 2-1/16" 5M
4	Gate Valve, 2-1/16" 5M
5	Gate Valve, 2-1/16" 5M
6	Gate Valve, 2-1/16" 5M
7	Gate Valve, 3-1/8" 3M
8	Gate Valve, 2-1/16" 5M
9	Gate Valve, 2-1/16" 5M
10	Gate Valve, 2-1/16" 5M
11	Gate Valve, 2-1/16" 5M
12	Gate Valve, 3-1/8" 3M
13	Gate Valve, 2-1/16" 5M
14	Gate Valve, 2-1/16" 5M
15	Pressure Gauge
16	2" hammer union tie-in point for BOP Tester

Drawn by:
Steven O. Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
Date: 03-Nov-2011