

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014  
ATS-13-61

OCCASION  
FEB 21 2013

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM LC 029405 B
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator ConocoPhillips Company		7. If Unit or CA Agreement, Name and No. N/A
3a. Address P.O. Box 51810 Midland, Texas 79710-1810	3b. Phone No. (include area code) 432-688-6913	8. Lease Name and Well No. Ruby Federal #16 <386537>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface UL K, Sec. 17, T17S, R32E; 2260' FSL and 1980' FWL At proposed prod. zone UL K, Sec. 17, T17S, R32E; 2287' FSL and 1590' FWL		9. API Well No. 30-025-41012
14. Distance in miles and direction from nearest town or post office* approximately 3 miles south of Maljamar, New Mexico		10. Field and Pool, or Exploratory Maljamar; Yeso West <44500>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2260' FSL	16. No. of acres in lease 1601.96	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 17, T17S, R32E;
17. Spacing Unit dedicated to this well 20 ACRES	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. about 60'	12. County or Parish Lea County
19. Proposed Depth 6963' TVD/6979' MD	20. BLM/BIA Bond No. on file ES 0085	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4010' GL	22. Approximate date work will start* 12/30/2012	23. Estimated duration 20 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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature 	Name (Printed/Typed) Gustav Fejervary	Date 10/3/12
Title Regulatory Specialist		
Approved by (Signature) 	Name (Printed/Typed) James A. Ames	Date FEB 20 2013
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)

Roswell Controlled Water Basin (Continued on page 2)

*Ka*  
02/25/13

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approval Subject to General Requirements  
& Special Stipulations Attached

FEB 27 2013

Drilling Plan  
 ConocoPhillips Company  
Maljamar; Yeso, west

Ruby Federal #16

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 13' above Ground Level).

Formations	Top Depth FT TVD	Top Depths FT MD	Contents
Quaternary	Surface	Surface	Fresh Water
Rustler	753	753	Anhydrite
Salado (top of salt)	935	935	Salt
Tansill (base of salt)	1942	1942	Gas, Oil and Water
Yates	2097	2097	Gas, Oil and Water
Seven Rivers	2398	2398	Gas, Oil and Water
Queen	3055	3058	Gas, Oil and Water
Grayburg	3481	3485	Gas, Oil and Water
San Andres	3855	3860	Gas, Oil and Water
Glorieta	5316	5326	Gas, Oil and Water
Paddock	5400	5411	Gas, Oil and Water
Blinebry	5794	5806	Gas, Oil and Water
Tubb	6763	6778	Gas, Oil and Water
Deepest estimated perforation	6763	6778	Deepest estimated perf. is ~ Top of Tubb
Total Depth (maximum)	6963	6979	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 will be 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 (in)	Interval MD RKB (ft)		OD (inches)	Wt (lb/ft)	Gr	Conn	MIY (psi)	Col (psi)	Jt Str (klbs)	Safety Factors Calculated per ConocoPhillips Corporate Criteria		
		From	To								Burst DF	Collapse DF	Jt Str DF (Tension) Dry/Buoyant
Cond	20	0	40' – 85' (30' – 75' BGL)	16	0.5" wall	B	Line Pipe	N/A	N/A	N/A	NA	NA	NA
Alt. Cond	20	0	40' – 85' (30' – 75' BGL)	13-3/8	48#	H-40	PE	1730	740	N/A	NA	NA	NA
Surf	12-1/4	0	778' – 823'	8-5/8	24#	J-55	STC	2950	1370	244	1.23	5.78	2.08
Prod	7-7/8	0	6924' – 6969'	5-1/2	17#	L-80	LTC	7740	6290	338	1.15	2.03	1.69

The casing will be suitable for H<sub>2</sub>S 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.

**Casing Design (Safety) Factors - BLM Criteria:**

Type	Depth	Wt	MIY	Col	Jt Str	Drill Fluid	Burst	Collapse	Tensile-Dry	Tens-Bouy
Surface Casing	823	24	2950	1370	244000	8.5	8.11	3.77	12.35	14.20
Production Casing	6969	17	7740	6290	338000	10	2.14	1.74	2.85	3.37

**Casing Design (Safety) Factors – Additional ConocoPhillips Criteria:**

ConocoPhillips casing design policy establishes Corporate Minimum Design Factors (see table below) and requires that service life load cases be considered and provided for in the casing design.

ConocoPhillips Corporate Criteria for Minimum Design Factors

	Burst	Collapse	Axial
Casing Design Factors	1.15	1.05	1.4

Type	Depth	Wt	MIY	Col	Jt Str	Pipe Yield	MW	Burst	Collapse	Tensile
Surface Casing (8-5/8" 24# J-55 STC)	823	24	2950	1370	244000	381000	8.5	1.23	5.78	2.08
Production Casing (5-1/2" 17# L-80 LTC)	6969	17	7740	6290	336000	397000	10	1.15	2.03	1.69

#### Burst Design (Safety) Factors - ConocoPhillips Criteria

The maximum internal (burst) load on the Surface Casing occurs when the surface casing is tested to 1000 psi (pressured up to 1100 psi). The maximum internal (burst) load on the Production Casing occurs during the fracture stimulation where the maximum allowable working pressure (MAWP) is the pressure that would fit ConocoPhillips Corporate Criteria for Minimum Design Factors.

Surface Casing Test Pressure = 1000 psi

Surface Rated Working Pressure = 3000 psi

Surface Casing Burst Design Factor = Burst Rating / Maximum Pressure during Casing Pressure Test

Production Casing MAWP for the Fracture Stimulation = Minimum Internal Yield / Production Casing Burst Design Factor

#### Surface Casing Burst Design Factor:

$$\text{Designed CSFG (Test Pressure + MW)} \leq \left( \frac{1000}{823} + \frac{423}{244000} \right) / \left( \frac{823}{381000} \times 0.052 \right) - 0.5 \leq 32.87$$

MPSP (CSFG - GG) =	823	x	0.052	x	32.87	=	1324
MPSP (PPTD - GG) =	6969	x	0.052	x	8.55	=	2402
MPSP (0.375 x BHP) =	0.375	x	6969	x	0.052	x	8.55
MPCS (CSFG) =	823	x	0.052	x	32.87	=	1407
Burst Design Factor =	2950	/	2402	=	1.23		

#### Production Casing Burst Design Factor:

MPSP (SRWP) =	3000						
MPSP (PPTD - GG) =	6969	x	0.052	x	8.55	=	2402
MPSP (0.375 x BHP) =	0.375	x	6969	x	0.052	x	8.55
Burst Design Factor (Max. MPSP) =	7740	/	3000	=	2.58		
MAWP for the Fracture Stimulation =	7740	/	1.15	=	6730		

#### Collapse Design (Safety) Factors - ConocoPhillips Criteria

The maximum collapse load on the Surface Casing occurs when the pressure is released after bumping the plug on the surface casing cement job. The maximum collapse load on the production casing occurs with the well is pumped off on production. We plan to cement the production casing to surface, and therefore the external pressure profile on the production casing should be equal to the pore pressure of the horizons on the outside of the casing which we estimate to be 8.55 ppg gradient.

Surface Casing Collapse Design Factor = Collapse Rating / (Cement Column Hydrostatic Pressure - Displacement Fluid Hydrostatic Pressure)

Production Casing Collapse Design Factor = Collapse Rating / Maximum Possible Pore Pressure

#### Surface Casing Collapse Design Factor:

$$\text{Collapse Design Factor} = \frac{1370}{1370} / \left( \left( \frac{300}{237} \times 0.052 \right) \times 14.3 \right) + \left( 523 \times 0.052 \times 13.6 \right) = 364$$

#### Production Casing Collapse Design Factor:

$$\text{Collapse Design Factor} = \frac{6290}{6290} / \left( \frac{8.55}{3098} \times 0.052 \times 6969 \right) = 2.03$$

#### Joint Strength Design (Safety) Factors - ConocoPhillips Criteria

The maximum axial (tension) load occurs if casing were to get stuck and pulled on to try to get it unstuck.

Maximum Allowable Hookload = Joint Strength Rating / Axial Design Factor

Overpull Margin (Air Wt) = Maximum Allowable Hook Load - Air Wt of the String

Overpull Margin (Bouyant) = Maximum Allowable Hook Load - Air Wt of the String

#### Surface Casing (Minimum Pipe Yield)

Max Hookload (Air Wt) =	19752						
Max Hookload (Bouyant) + Overpull =	100,000	+	( 19752 x 0.870 )	=	117189		
Tensile Design Factor =	397000	/	117189	=	3.39		
Actual Overpull Margin to Satisfy COP min DF =	397000	/	1.40	-	17189	=	266386

#### Production Casing (Minimum Pipe Yield)

Max Hookload (Air Wt) =	118473						
Max Hookload (Bouyant) + Overpull =	100,000	+	( 118473 x 0.847 )	=	200386		
Tensile Design Factor =	381000	/	200386	=	1.90		
Actual Overpull Margin to Satisfy COP min DF =	381000	/	1.40	-	100386	=	171757

#### Surface Casing (Minimum Jt Strength)

Max Hookload (Air Wt) =	19752						
Max Hookload (Bouyant) + Overpull =	100,000	+	( 19752 x 0.870 )	=	117189		
Tensile Design Factor =	244000	/	117189	=	2.08		
Actual Overpull Margin to Satisfy COP min DF =	244000	/	1.40	-	17189	=	157097

#### Production Casing (Minimum Jt Strength)

Max Hookload (Air Wt) =	118473						
Max Hookload (Bouyant) + Overpull =	100,000	+	( 118473 x 0.847 )	=	200386		
Tensile Design Factor =	338000	/	200386	=	1.69		
Actual Overpull Margin to Satisfy COP min DF =	338000	/	1.40	-	100386	=	141043

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" diameter)  
 TOC at surface.

**8-5/8" Surface Casing & Cementing Program:** 8-5/8" 24# J-55 STC

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		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	Class C	Surface	478' – 523'	13.6	350	595	4%Bentonite 2%CaCl <sub>2</sub> .125%Polyflake 0.2% antifoam Excess =230% based on gauge hole volume	1.70
Tail	Class C	478' – 523'	778' – 823'	14.8	200	268	1% CaCl <sub>2</sub> Excess = 100% based on gauge hole volume	1.34

Displacement: Fresh Water.

**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:** 5-1/2" 17# L-80 LTC

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		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	50:50 Poz/C	Surface	5200'	11.8	1000	2640	10% Bentonite 8 lbs/sx Salt 0.4% Fluid loss additive 0.125% LCM if needed Excess = 220% or more if needed based on gauge hole volume	2.64
Tail	Class H	5200'	6924' – 6969'	16.4	650	696	0.2% Fluid loss additive 0.3% Dispersant 0.15% Retarder 0.2% Antifoam Excess = 100% or more if needed based on gauge hole volume	1.07

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

(Date: 9/25/2012)

### Proposal for Option to Adjust Production Casing Cement Volumes:

The production casing cement volume presented above are estimates based on gauge 7-7/8" hole. 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 volume 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

After nipping up, and every 30 days thereafter or whenever any seal subject to test pressure is broken followed by related repairs, blowout 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 done by an independent service company and recorded on the daily drilling reports. BOP will be tested using a test plug to isolate BOP stack from casing. BOP test will include a low pressure test from 250 to 300 psi for a minimum of 10 minutes or until requirements of test are met, whichever is longer. Ram type preventers and associated equipment will be tested to the approved stack working pressure of 3000 psi isolated by test plug. Annular type preventers will be tested to 50 percent of rated working pressure, and therefore will be tested to 1500 psi. Pressure will be held for at least 10 minutes or until provisions of test are met, whichever is longer. Valve on casing head below test plug will be open during testing of BOP stack. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. **See Attached BOPE Schematic.** The BOPE may be configured to use flexible hose. Pressure test data and hose specification information will be provided in the variance request to BLM prior to site construction.

#### 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	Vol bbl
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud	8.5 – 9.0	28 – 40	N.C.	N.C.	120 – 160
Surface Casing Point to TD	Brine (Saturated NaCl <sub>2</sub> )	10	29	N.C.	10 – 11	1250 - 2500
Conversion to Mud at TD	Brine Based Mud (NaCl <sub>2</sub> )	10	34 – 45	5 – 10	10 – 11	0 - 1250

Drilling mud containing H<sub>2</sub>S 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 weighting material on location at all times.

#### Proposal for Option to Not Mud Up at TD:

FW, Brine, and Mud volume presented above are estimates based on gauge 12-1/4" or 7-7/8" holes. We will adjust these volume based on hole conditions. Also, we propose an option to not mud up leaving only brine in the hole.

**6. Logging, Coring, and Testing Program:** *See CoA*

- a. No drill stem tests will be done
- b. Mud logging planned for the production hole section (optional).
- 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)

**o 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.
  - o The bottom hole pressure is expected to be 8.55 ppg gradient.
  - o The expected Bottom Hole Temperature is 115 degrees F.
- The estimated H<sub>2</sub>S 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	H <sub>2</sub> S (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 late 2012 through the 2013 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: 25 September 2012

# **ConocoPhillips MCBU**

Buckeye

Ruby Federal

Ruby Federal 16

Original Hole

Plan: Actual Plan

## **Standard Planning Report - Geographic**

24 September, 2012

**ConocoPhillips**  
Planning Report - Geographic

Database: EDM Central Planning  
 Company: ConocoPhillips MCBU  
 Project: Buckeye  
 Site: Ruby Federal  
 Well: Ruby Federal 16  
 Wellbore: Original Hole  
 Design: Actual Plan

Local Co-ordinate Reference: Site Ruby Federal  
 TVD Reference: RKB @ 4023.0usft (PD 822)  
 MD Reference: RKB @ 4023.0usft (PD 822)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

<b>Project</b>	Buckeye, Lea County, NM		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Ruby Federal, New Mexico, Southeast				
<b>Site Position:</b>		<b>Northing:</b>	666,097.48 usft	<b>Latitude:</b>	32° 49' 48.040 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	666,763.62 usft	<b>Longitude:</b>	103° 47' 25.559 W
<b>Position Uncertainty:</b>	3.5 usft	<b>Slot Radius:</b>	8"	<b>Grid Convergence:</b>	0.29 °

<b>Well</b>	Ruby Federal 16, Directional Well					
<b>Well Position</b>	+N/-S	1,269.0 usft	<b>Northing:</b>	667,366.49 usft	<b>Latitude:</b>	32° 50' 0.594 N
	+E/-W	46.7 usft	<b>Easting:</b>	666,810.33 usft	<b>Longitude:</b>	103° 47' 24.935 W
<b>Position Uncertainty</b>		3.5 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	4,010.0 usft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	BGGM2012	9/21/2012	(°) 7.67	(°) 60.64	(nT) 48,821

<b>Design</b>	Actual Plan				
<b>Audit Notes:</b>					
<b>Version:</b>	1	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>		<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
		(usft)	(usft)	(usft)	(°)
		0.0	1,269.0	46.7	273.89

<b>Plan Sections</b>											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.0	0.00	0.00	0.0	1,269.0	46.7	0.00	0.00	0.00	0.00		
2,097.0	0.00	0.00	2,097.0	1,269.0	46.7	0.00	0.00	0.00	0.00		
2,413.1	4.74	273.89	2,412.8	1,269.9	33.7	1.50	1.50	0.00	273.89		
6,213.4	4.74	273.89	6,200.0	1,291.2	-279.8	0.00	0.00	0.00	0.00	Ruby Federal 16 (Alt.)	
6,979.0	4.74	273.89	6,963.0	1,295.5	-342.9	0.00	0.00	0.00	0.00		

**ConocoPhillips**  
Planning Report - Geographic

Database: EDM Central Planning  
Company: ConocoPhillips MCBU  
Project: Buckeye  
Site: Ruby Federal  
Well: Ruby Federal 16  
Wellbore: Original Hole  
Design: Actual Plan

Local Co-ordinate Reference: Site Ruby Federal  
TVD Reference: RKB @ 4023.0usft (PD 822)  
MD Reference: RKB @ 4023.0usft (PD 822)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
85.0	0.00	0.00	85.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Conductor</b>									
100.0	0.00	0.00	100.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
200.0	0.00	0.00	200.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
300.0	0.00	0.00	300.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
400.0	0.00	0.00	400.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
500.0	0.00	0.00	500.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
600.0	0.00	0.00	600.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
700.0	0.00	0.00	700.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
753.0	0.00	0.00	753.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Rustler</b>									
778.0	0.00	0.00	778.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Surface</b>									
800.0	0.00	0.00	800.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
900.0	0.00	0.00	900.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
935.0	0.00	0.00	935.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Salado</b>									
1,000.0	0.00	0.00	1,000.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,100.0	0.00	0.00	1,100.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,200.0	0.00	0.00	1,200.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,300.0	0.00	0.00	1,300.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,400.0	0.00	0.00	1,400.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,500.0	0.00	0.00	1,500.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,600.0	0.00	0.00	1,600.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,700.0	0.00	0.00	1,700.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,800.0	0.00	0.00	1,800.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,900.0	0.00	0.00	1,900.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
1,942.0	0.00	0.00	1,942.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Tansill</b>									
2,000.0	0.00	0.00	2,000.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
2,097.0	0.00	0.00	2,097.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
<b>Yates</b>									
2,100.0	0.04	273.89	2,100.0	1,269.0	46.7	667,366.49	666,810.33	32° 50' 0.594 N	103° 47' 24.935 W
2,200.0	1.54	273.89	2,200.0	1,269.1	45.3	667,366.58	666,808.94	32° 50' 0.595 N	103° 47' 24.951 W
2,300.0	3.04	273.89	2,299.9	1,269.4	41.3	667,366.85	666,804.95	32° 50' 0.598 N	103° 47' 24.998 W
2,398.3	4.52	273.89	2,398.0	1,269.8	34.9	667,367.29	666,798.48	32° 50' 0.603 N	103° 47' 25.074 W
<b>Seven Rivers</b>									
2,400.0	4.54	273.89	2,399.7	1,269.8	34.7	667,367.30	666,798.34	32° 50' 0.603 N	103° 47' 25.075 W
2,413.1	4.74	273.89	2,412.8	1,269.9	33.7	667,367.37	666,797.28	32° 50' 0.603 N	103° 47' 25.088 W
2,500.0	4.74	273.89	2,499.3	1,270.4	26.5	667,367.86	666,790.12	32° 50' 0.609 N	103° 47' 25.172 W
2,600.0	4.74	273.89	2,599.0	1,270.9	18.2	667,368.42	666,781.87	32° 50' 0.615 N	103° 47' 25.268 W
2,700.0	4.74	273.89	2,698.7	1,271.5	10.0	667,368.98	666,773.62	32° 50' 0.621 N	103° 47' 25.365 W
2,800.0	4.74	273.89	2,798.3	1,272.1	1.8	667,369.54	666,765.37	32° 50' 0.627 N	103° 47' 25.462 W
2,900.0	4.74	273.89	2,898.0	1,272.6	-6.5	667,370.10	666,757.13	32° 50' 0.633 N	103° 47' 25.558 W
3,000.0	4.74	273.89	2,997.6	1,273.2	-14.7	667,370.66	666,748.88	32° 50' 0.638 N	103° 47' 25.655 W
3,057.6	4.74	273.89	3,055.0	1,273.5	-19.5	667,370.98	666,744.13	32° 50' 0.642 N	103° 47' 25.711 W
<b>Queen</b>									
3,100.0	4.74	273.89	3,097.3	1,273.7	-23.0	667,371.22	666,740.63	32° 50' 0.644 N	103° 47' 25.752 W
3,200.0	4.74	273.89	3,196.9	1,274.3	-31.2	667,371.78	666,732.38	32° 50' 0.650 N	103° 47' 25.848 W
3,300.0	4.74	273.89	3,296.6	1,274.9	-39.5	667,372.34	666,724.14	32° 50' 0.656 N	103° 47' 25.945 W
3,400.0	4.74	273.89	3,396.3	1,275.4	-47.7	667,372.90	666,715.89	32° 50' 0.662 N	103° 47' 26.041 W

**ConocoPhillips**  
 Planning Report - Geographic

Database: EDM Central Planning  
 Company: ConocoPhillips MCBU  
 Project: Buckeye  
 Site: Ruby Federal  
 Well: Ruby Federal 16  
 Wellbore: Original Hole  
 Design: Actual Plan

Local Co-ordinate Reference: Site Ruby Federal  
 TVD Reference: RKB @ 4023.0usft (PD 822)  
 MD Reference: RKB @ 4023.0usft (PD 822)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,485.0	4.74	273.89	3,481.0	1,275.9	-54.7	667,373.38	666,708.88	32° 50' 0.667 N	103° 47' 26.124 W
<b>Grayburg</b>									
3,500.0	4.74	273.89	3,495.9	1,276.0	-56.0	667,373.46	666,707.64	32° 50' 0.668 N	103° 47' 26.138 W
3,600.0	4.74	273.89	3,595.6	1,276.5	-64.2	667,374.02	666,699.39	32° 50' 0.674 N	103° 47' 26.235 W
3,700.0	4.74	273.89	3,695.2	1,277.1	-72.5	667,374.58	666,691.15	32° 50' 0.680 N	103° 47' 26.331 W
3,800.0	4.74	273.89	3,794.9	1,277.7	-80.7	667,375.14	666,682.90	32° 50' 0.686 N	103° 47' 26.428 W
3,860.3	4.74	273.89	3,855.0	1,278.0	-85.7	667,375.48	666,677.92	32° 50' 0.690 N	103° 47' 26.486 W
<b>San Andres</b>									
3,900.0	4.74	273.89	3,894.6	1,278.2	-89.0	667,375.70	666,674.65	32° 50' 0.692 N	103° 47' 26.525 W
4,000.0	4.74	273.89	3,994.2	1,278.8	-97.2	667,376.26	666,666.40	32° 50' 0.698 N	103° 47' 26.621 W
4,100.0	4.74	273.89	4,093.9	1,279.3	-105.5	667,376.82	666,658.16	32° 50' 0.704 N	103° 47' 26.718 W
4,200.0	4.74	273.89	4,193.5	1,279.9	-113.7	667,377.38	666,649.91	32° 50' 0.710 N	103° 47' 26.814 W
4,300.0	4.74	273.89	4,293.2	1,280.5	-122.0	667,377.94	666,641.66	32° 50' 0.716 N	103° 47' 26.911 W
4,400.0	4.74	273.89	4,392.8	1,281.0	-130.2	667,378.50	666,633.41	32° 50' 0.722 N	103° 47' 27.008 W
4,500.0	4.74	273.89	4,492.5	1,281.6	-138.5	667,379.06	666,625.17	32° 50' 0.728 N	103° 47' 27.104 W
4,600.0	4.74	273.89	4,592.2	1,282.1	-146.7	667,379.62	666,616.92	32° 50' 0.734 N	103° 47' 27.201 W
4,700.0	4.74	273.89	4,691.8	1,282.7	-155.0	667,380.18	666,608.67	32° 50' 0.740 N	103° 47' 27.298 W
4,800.0	4.74	273.89	4,791.5	1,283.3	-163.2	667,380.74	666,600.42	32° 50' 0.746 N	103° 47' 27.394 W
4,900.0	4.74	273.89	4,891.1	1,283.8	-171.4	667,381.30	666,592.17	32° 50' 0.752 N	103° 47' 27.491 W
5,000.0	4.74	273.89	4,990.8	1,284.4	-179.7	667,381.86	666,583.93	32° 50' 0.758 N	103° 47' 27.587 W
5,100.0	4.74	273.89	5,090.4	1,284.9	-187.9	667,382.42	666,575.68	32° 50' 0.764 N	103° 47' 27.684 W
5,200.0	4.74	273.89	5,190.1	1,285.5	-196.2	667,382.98	666,567.43	32° 50' 0.770 N	103° 47' 27.781 W
5,300.0	4.74	273.89	5,289.8	1,286.1	-204.4	667,383.54	666,559.18	32° 50' 0.776 N	103° 47' 27.877 W
5,326.3	4.74	273.89	5,316.0	1,286.2	-206.6	667,383.69	666,557.01	32° 50' 0.777 N	103° 47' 27.903 W
<b>Glorieta</b>									
5,400.0	4.74	273.89	5,389.4	1,286.6	-212.7	667,384.10	666,550.94	32° 50' 0.782 N	103° 47' 27.974 W
5,410.6	4.74	273.89	5,400.0	1,286.7	-213.6	667,384.16	666,550.06	32° 50' 0.782 N	103° 47' 27.984 W
<b>Paddock</b>									
5,500.0	4.74	273.89	5,489.1	1,287.2	-220.9	667,384.66	666,542.69	32° 50' 0.788 N	103° 47' 28.071 W
5,600.0	4.74	273.89	5,588.7	1,287.7	-229.2	667,385.22	666,534.44	32° 50' 0.793 N	103° 47' 28.167 W
5,700.0	4.74	273.89	5,688.4	1,288.3	-237.4	667,385.78	666,526.19	32° 50' 0.799 N	103° 47' 28.264 W
5,800.0	4.74	273.89	5,788.0	1,288.9	-245.7	667,386.34	666,517.95	32° 50' 0.805 N	103° 47' 28.360 W
5,806.0	4.74	273.89	5,794.0	1,288.9	-246.2	667,386.38	666,517.45	32° 50' 0.806 N	103° 47' 28.366 W
<b>Blinebry</b>									
5,900.0	4.74	273.89	5,887.7	1,289.4	-253.9	667,386.91	666,509.70	32° 50' 0.811 N	103° 47' 28.457 W
6,000.0	4.74	273.89	5,987.4	1,290.0	-262.2	667,387.47	666,501.45	32° 50' 0.817 N	103° 47' 28.554 W
6,100.0	4.74	273.89	6,087.0	1,290.5	-270.4	667,388.03	666,493.20	32° 50' 0.823 N	103° 47' 28.650 W
6,200.0	4.74	273.89	6,186.7	1,291.1	-278.7	667,388.59	666,484.96	32° 50' 0.829 N	103° 47' 28.747 W
6,213.4	4.74	273.89	6,200.0	1,291.2	-279.8	667,388.66	666,483.85	32° 50' 0.830 N	103° 47' 28.760 W
6,300.0	4.74	273.89	6,286.3	1,291.7	-286.9	667,389.15	666,476.71	32° 50' 0.835 N	103° 47' 28.844 W
6,400.0	4.74	273.89	6,386.0	1,292.2	-295.2	667,389.71	666,468.46	32° 50' 0.841 N	103° 47' 28.940 W
6,500.0	4.74	273.89	6,485.7	1,292.8	-303.4	667,390.27	666,460.21	32° 50' 0.847 N	103° 47' 29.037 W
6,600.0	4.74	273.89	6,585.3	1,293.4	-311.7	667,390.83	666,451.96	32° 50' 0.853 N	103° 47' 29.134 W
6,700.0	4.74	273.89	6,685.0	1,293.9	-319.9	667,391.39	666,443.72	32° 50' 0.859 N	103° 47' 29.230 W
6,778.3	4.74	273.89	6,763.0	1,294.3	-326.4	667,391.83	666,437.26	32° 50' 0.864 N	103° 47' 29.306 W
<b>Tubb</b>									
6,800.0	4.74	273.89	6,784.6	1,294.5	-328.2	667,391.95	666,435.47	32° 50' 0.865 N	103° 47' 29.327 W
6,900.0	4.74	273.89	6,884.3	1,295.0	-336.4	667,392.51	666,427.22	32° 50' 0.871 N	103° 47' 29.423 W
6,969.0	4.74	273.89	6,953.0	1,295.4	-342.1	667,392.89	666,421.53	32° 50' 0.875 N	103° 47' 29.490 W
<b>Production</b>									
6,979.0	4.74	273.89	6,963.0	1,295.5	-342.9	667,392.95	666,420.71	32° 50' 0.876 N	103° 47' 29.500 W
<b>TD</b>									

**ConocoPhillips**  
Planning Report - Geographic

Database: EDM Central Planning  
 Company: ConocoPhillips MCBU  
 Project: Buckeye  
 Site: Ruby Federal  
 Well: Ruby Federal 16  
 Wellbore: Original Hole  
 Design: Actual Plan

Local Co-ordinate Reference: Site Ruby Federal  
 TVD Reference: RKB @ 4023.0usft (PD 822)  
 MD Reference: RKB @ 4023.0usft (PD 822)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

**Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Ruby Federal 16 (Original)	0.00	0.00	5,400.0	1,291.2	-279.8	667,388.66	666,483.85	32° 50' 0.830 N	103° 47' 28.760 W
- plan misses target center by 66.1usft at 5416.1usft MD (5405.5 TVD, 1286.7 N, -214.0 E)									
- Circle (radius 150.0)									
Ruby Federal 16 (Alt. Mi)	0.00	0.00	6,200.0	1,291.2	-279.8	667,388.66	666,483.85	32° 50' 0.830 N	103° 47' 28.760 W
- plan hits target center									
- Point									

**Casing Points**

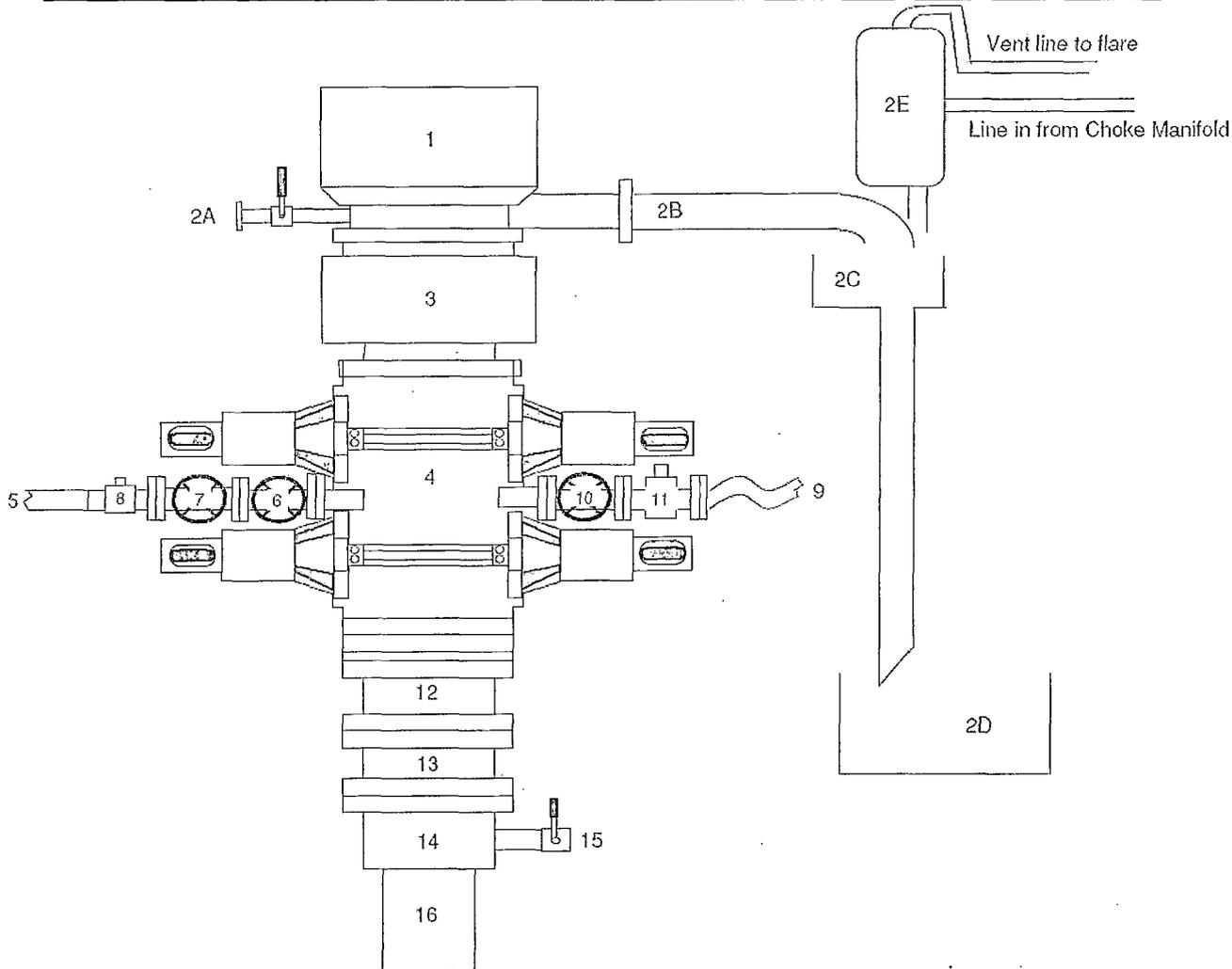
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
85.0	85.0	Conductor	16	20
778.0	778.0	Surface	8-5/8	12-1/4
6,969.0	6,953.0	Production	5-1/2	7-7/8

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,057.6	3,055.0	Queen		0.00	
753.0	753.0	Rustler		0.00	
6,778.3	6,763.0	Tubb		0.00	
1,942.0	1,942.0	Tansill		0.00	
5,410.6	5,400.0	Paddock		0.00	
935.0	935.0	Salado		0.00	
3,860.3	3,855.0	San Andres		0.00	
2,398.3	2,398.0	Seven Rivers		0.00	
6,979.0	6,963.0	TD		0.00	
5,806.0	5,794.0	Blinebry		0.00	
2,097.0	2,097.0	Yates		0.00	
3,485.0	3,481.0	Grayburg		0.00	
5,326.3	5,316.0	Glorieta		0.00	

Attachment # 1

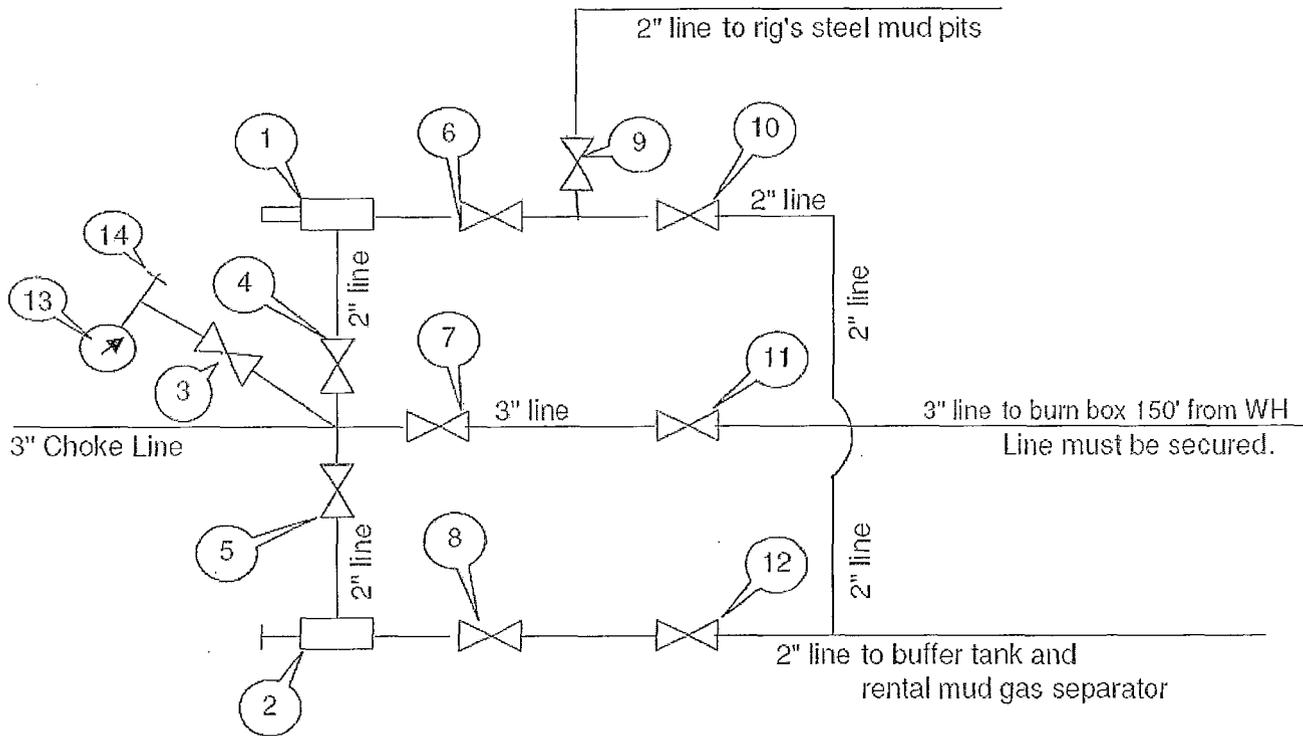
**BLOWOUT PREVENTER ARRANGEMENT**  
3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Rated Equipment



Item	Description
1	Rotating Head, 11"
2A	Fill up Line and Valve
2B	Flow Line (10")
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", 3M)
4	Double Ram (11", 3M, equipped with Blind Rams and Pipe Rams)
5	Kill Line (2" flexible hose, 3000 psi WP)
6	Kill Line Valve, Inner (3-1/8", 3000 psi WP)
7	Kill Line Valve, Outer (3-1/8", 3000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 psi WP)
9	Choke Line (Stainless Steel Coflex Line, 3-1/8", 5000 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	Adapter Flange (11" 5M to 11" 3M)
13	Spacer Spool (11", 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
16	Surface Casing

### CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Equipment



All Tees must be targeted

Item	Description
1	Remote Controlled Hydraulically Operated 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, 3-1/8" 3M
12	Gate Valve, 2-1/16" 5M
13	Pressure Gauge
14	2" hammer union tie-in point for BOP Tester

We will test each valve to 3000 psi from the upstream side.

Drawn by:  
 Steven O. Moore  
 Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company  
 Date: 25-Sept-2012

## **Request for Variance**

### **ConocoPhillips Company**

Lease Number: NM LC 029405B

Well: Ruby Federal #16

Location: Sec. 17, T17S, R32E

Date: 09-25-12

### **Request:**

ConocoPhillips Company respectfully requests a variance to install a flexible choke line instead of a straight choke line prescribed in the Onshore Order No. 2, III.A.2.b Minimum standards and enforcement provisions for choke manifold equipment. This request is made under the provision of Onshore Order No. 2, IV Variances from Minimum Standard. The rig to be used to drill this well is equipped with a flexible choke line if the requested variance is approved and determined that the proposed alternative meets the objectives of the applicable minimum standards.

### **Justifications:**

The applicability of the flexible choke line will reduce the number of target tees required to make up from the choke valve to the choke manifold. This configuration will facilitate ease of rig up and BOPE Testing.

### **Attachments:**

- Attachment # 1 Mill Certification
- Attachment # 2 Specification
- Attachment # 3 Certified & Signed Pressure Test from Manufacturer

### **Contact Information:**

Program prepared by:

James Chen

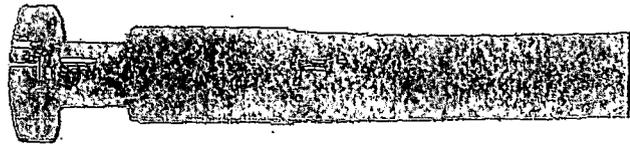
Drilling Engineer, ConocoPhillips Company

Phone (832) 486-2184

Cell (832) 768-1647

Date: 21 September 2012

Attachment # 1



### Reliance Eliminator Choke & Kill

This hose can be used as a choke hose which connects the BOP stack to the bleed-off manifold or a kill hose which connects the mud stand pipe to the BOP kill valve.

The Reliance Eliminator Choke & Kill hose contains a specially bonded compounded cover that replaces rubber covered Asbestos, Fibreglass and other fire retardant materials which are prone to damage. This high cut and gouge resistant cover overcomes costly repairs and downtime associated with older designs.

The Reliance Eliminator Choke & Kill hose has been verified by an independent engineer to meet and exceed EUB Directive 36 (700°C for 5 minutes).

Nom. ID		Nom OD		Weight		Min Bend Radius		Max WP	
in.	mm.	in.	mm	lb/ft	kg/m	in.	mm.	psi	Mpa
3	76.2	5.11	129.79	14.5	21.46	48	1219.2	5000	34.47
3-1/2	88.9	5.79	147.06	20.14	29.80	54	1371.6	5000	34.47



**Fittings**

RC4X5055  
RC3X5055  
RC4X5575

**Flanges**

R35 - 3-1/8 5000# API Type 6B  
R31 - 3-1/8 3000# API Type 6B

**Hammer Unions**

All Union Configurations

**Other**

LP Threaded Connectio  
Graylock  
Custom Ends

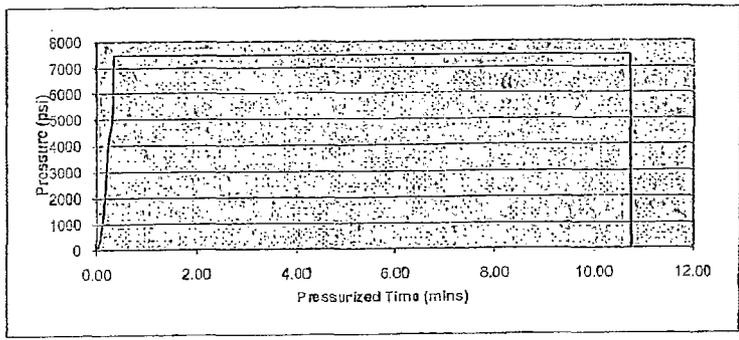
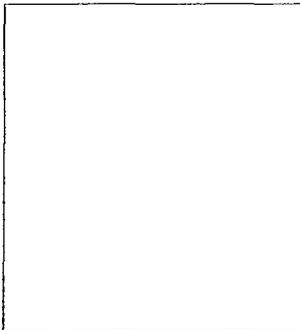


Industrial Products USA, Ltd.

2030 E. 8th Street, Suite B • Greeley, CO 80631  
Ph: (970) 346-3751 • Fax: (970) 353-3168 • Toll Free: (866) 771-9739

T E S T   C E R T I F I C A T E

Customer:	PRECISION DRILLING	Cert No.:	<u>27792</u>
P.O. #:	RIG 822	Date:	<u>9/21/2012</u>
Invoice #:	27792		
Material:	3 1/2" FIREGUARD		
Description:	3 1/2" X 10'		
Coupling 1:	3 1/2" FLANGER31		
" Serial:			
" Quality:			
Coupling 2:	3 1/2" FLOATING R31		
" Serial:			
" Quality:			
Working Pressure :	3000		
Test Pressure:	7500		
Duration (mins):	10		



Conducted By: FLORES M,  
Test Technician

- Acceptable
- Not Acceptable

## Closed Loop System Design, Operating and Maintenance, and Closure Plan

ConocoPhillips Company

Well: Ruby Federal #16

Location: Sec. 17, T17S, R32E

Date: 09-25-12

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs's steel pits for containing and maintaining the drilling fluids.
- We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
- We propose that any excess water that may need to be stored on location will be stored in tanks.

**The closed loop system components will be inspected daily by each tour and any need repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and/or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.**

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

Controlled Recovery Inc,  
4507 West Carlsbad Hwy, Hobbs, NM 88240,  
P.O. Box 388; Hobbs, New Mexico 88241  
Toll Free Phone: 877.505.4274, Local Phone Number: 432.638.4076

The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

The Permit Number for CRI is R9166

A photograph showing the type of haul-off bins that will be used is attached.

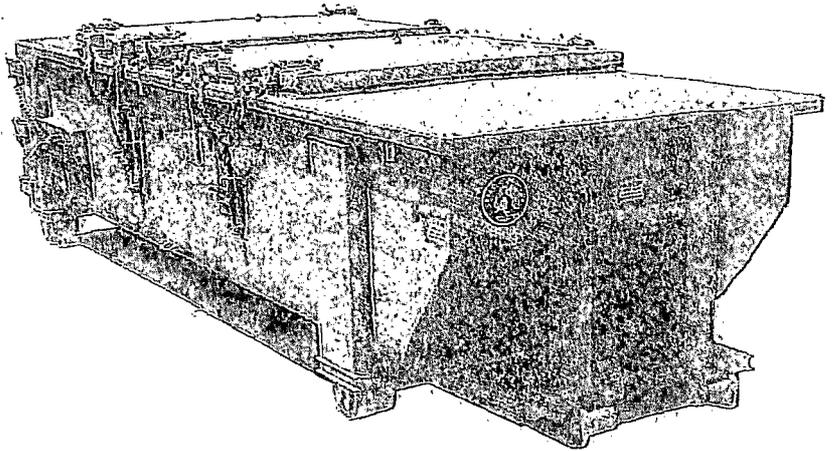
3. Mud will be transported by vacuum truck and disposed of at Controlled Recovery Inc at the facility described above.
4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:
  - Nabors Well Services Company, 3221 NW County Rd; Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: **Section 3, T19S R37E**)
  - Basic Energy Services, P.O. Box 1869; Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.

James Chen  
Drilling Engineer  
Office: 832.486.2184  
Cell: 832.678.1647

# SPECIFICATIONS

# Heavy Duty Split Metal Rolling Lid

**FLOOR:** 3/16" PL one piece  
**CROSS MEMBER:** 3x4-1 channel 16" on center  
**WALLS:** 3/16" PL solid welded with tubing top inside line hooks  
**DOOR:** 3/16" PL with tubing frame  
**FRONT:** 3/16" PL slant formed  
**RICK UP:** Standard cable with 2" x 6" x 1/2" rails, gusset at each crossmember  
**WHEELS:** 10" DIA x 9" long with grease fittings  
**DOOR LATCH:** 3 independent ratchet binders with chains, vertical second latch  
**GASKETS:** Extruded rubber seal with metal retainers  
**WELDS:** All welds continuous except sub-structure crossmembers  
**FINISH:** Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat  
**HYDROTESTING:** Full capacity static test  
**DIMENSIONS:** 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height  
**OPTIONS:** Seal out blast and special pallet, Ampiroil, Hell and Dino pickup  
**ROOF:** 3/16" PL roof panels with tubing and channel support frame  
**LIDS:** (2) 68" x 90" metal rolling lids spring loaded, self raising  
**ROLLERS:** 4 V-groove rollers with delrin bearings and grease fittings  
**OPENING:** (2) 60" x 82" openings with 8" divider centered on container  
**LATCH:** (2) independent ratchet binders with chains per lid  
**GASKETS:** Extruded rubber seal with metal retainers



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77

