13-32

HOBBS OCD

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM LC 029405B

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Ruby Federal #12 <386537

2. Name of Operator ConocoPhillips Company <217817

9. API Well No.
30-025-41008

3a. Address P.O. Box 51810
Midland, Texas 79710-1810

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

10. Field and Pool, or Exploratory
Maljamar; Yeso West <45000

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface UL K, Sec. 18, T17S, R32E; 1330' FSL and 1705' FWL
At proposed prod. zone UL N, Sec. 18, T17S, R32E; 990' FSL and 1650' FWL

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 18, T17S, R32E

14. Distance in miles and direction from nearest town or post office*
approximately 3.5 miles south of Maljamar, New Mexico

12. County or Parish
Lea County

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1330' FSL

16. No. of acres in lease
1601.96

17. Spacing Unit dedicated to this well
40 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1180' from MCA Unit #17

19. Proposed Depth
6918TVD/6945MD

20. BLM/BIA Bond No. on file
ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3952' GL

22. Approximate date work will start*
12/15/2012

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.
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 Susan B. Maunder
Name *(Printed/Typed)* Susan B. Maunder
Date 9/27/12

Title
Senior Regulatory Specialist

Approved by *(Signature)* James A. Amos
Name *(Printed/Typed)*
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 [illegible] illy to make to any department or agency of the United States any false, fictitious or fraudt

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

**Conditions of Approval** for Non-Standard Location Intents ot drill ONLY- **CANNOT produce** until the Non Standard Location has been approved by OCD Santa Fe Office

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 12

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 | 660 | 660 | Anhydrite |
| Salado (top of salt) | 832 | 832 | Salt |
| Tansill (base of salt) | 1841 | 1841 | Gas, Oil and Water |
| Yates | 2047 | 2047 | Gas, Oil and Water |
| Seven Rivers | 2343 | 2343 | Gas, Oil and Water |
| Queen | 2976 | 2977 | Gas, Oil and Water |
| Grayburg | 3386 | 3390 | Gas, Oil and Water |
| San Andres | 3772 | 3778 | Gas, Oil and Water |
| Glorieta | 5241 | 5257 | Gas, Oil and Water |
| Paddock | 5324 | 5340 | Gas, Oil and Water |
| Blinebry | 5662 | 5681 | Gas, Oil and Water |
| Tubb | 6718 | 6743 | Gas, Oil and Water |
| Deepest estimated perforation | 6718 | 6743 | Deepest estimated perf. is ~ Top of Tubb |
| Total Depth (maximum) | 6918 | 6945 | 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 | Interval MD RKB (ft) | | OD | Wt | Gr | Conn | MIY | Col | Jt Str | Safety Factors Calculated per ConocoPhillips Corporate Criteria | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (in) | From | To | (inches) | (lb/ft) | | | (psi) | (psi) | (klbs) | Burst DF | Collapse DF | Axial (Tension) DF |
| 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 | 685' – 730' | 8-5/8 | 24# | J-55 | STC | 2950 | 1370 | 244 | 2.68 | 6.45 | 1.4 |
| Prod | 7-7/8 | 0 | 6890' – 6935' | 5-1/2 | 17# | L-80 | LTC | 7740 | 6290 | 338 | 1.15 | 2.04 | 1.4 |

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.

### Casing Design (Safety) Factors – BLM Criteria:

| Type | Depth | Wt | MIY | Col | Jt Str | Drill Fluid | Burst | Collapse | Tensile-Dry | Tens-Bouy |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface Casing | 730 | 24 | 2950 | 1370 | 244000 | 8.5 | 9.14 | 4.25 | 13.93 | 16.00 |
| Production Casing | 6935 | 17 | 7740 | 6290 | 338000 | 10 | 2.15 | 1.74 | 2.87 | 3.38 |

### 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 |

### 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 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:

Bust Design Factor = 2950 psi / 1100 psi = 2.68

Production Casing MAWP:

MAWP for the Fracture Stimulation = 7740 psi / 1.15 = 6730 psi

### 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:

Collapse Design Factor = 1370 psi / {[(300 ft x .052 x 14.8 ppg) + (430 ft x .052 x 13.6 ppg)] – (730 ft x .052 x 8.5 ppg)}

Collapse Design Factor = 1370 psi / 212 psi = 6.45

Production Casing Collapse Design Factor:

Collapse Design Factor = 6290 / (8.55 ppg x .052 x 6,935 ft) = 6290 psi / 3,083 psi = 2.04

**Axial 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 = Maximum Allowable Hook Load - Air Wt of the String

Surface Casing Overpull Margin:
Maximum Allowable Hookload = 244,000 lbs / 1.4
Maximum Allowable Hookload = 174,286 lbs
Overpull Margin = 174,286 lbs – (730 ft x 24 lb/ft)
Overpull Margin = 174,286 lbs – 17,520 lbs = 157,766 lbs

Production Casing Overpull Margin:
Maximum Allowable Hookload = 338,000 lbs / 1.4
Maximum Allowable Hookload = 241,429 lbs
Overpull Margin = 241,428 lbs – (6,922 ft x 17 lb/ft)
Overpull Margin = 241,428 lbs – 117,895 lbs = 123,534 lbs

**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 $ft^3/sx$ |
|---|---|---|---|---|---|---|---|---|
| Lead | Class C | Surface | 385' – 430' | 13.6 | 270 | 462 | 4%Bentonite<br>2%CaCl2 .125%Polyflake<br>0.2% antifoam<br>Excess =180% based on gauge hole volume | 1.71 |
| Tail | Class C | 385' – 430' | 685' – 730' | 14.8 | 200 | 268 | 1% CaCl2<br>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 $ft^3/sx$ |
|---|---|---|---|---|---|---|---|---|
| Lead | 50:50 Poz/C | Surface | 5200' | 11.8 | 700 | 1820 | 10% Bentonite<br>8 lbs/sx Salt<br>0.4% Fluid loss additive<br>0.125% LCM if needed<br>Excess = 115 % or more if needed based on gauge hole volume | 2.6 |
| Tail | Class H | 5200' | 6890' – 6935' | 16.4 | 400 | 428 | 0.2% Fluid loss additive<br>0.3% Dispersant<br>0.15% Retarder<br>0.2% Antifoam<br>Excess = 45% or more if needed based on gauge hole volume | 1.07 |

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

**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:

- Rotating Head
- Annular BOP, 11" 3M
- Blind Ram, 11" 3M
- Pipe Ram, 11" 3M

After nippling 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 and 6 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 | 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 $NaCl_2$) | 10 | 29 | N.C. | 10 – 11 | 400 – 750 |
| Conversion to Mud at TD | Brine Based Mud ($NaCl_2$) | 10 | 34 – 45 | 5 – 10 | 10 – 11 | 0 – 750 |

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 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:

a. No drill stem tests will be done
b. No mud logging is planned
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 expected Bottom Hole Temperature is 115 degrees F.
- 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 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: 29 June 2012

ConocoPhillips

# ConocoPhillips MCBU

**Buckeye**
**Ruby Federal**
**Ruby Federal 12**

**Original Hole**

**Plan: Actual Plan**

# Standard Planning Report

**03 July, 2012**

| | | | |
|---|---|---|---|
| **Database:** | EDM Central Planning | **Local Co-ordinate Reference:** | Well Ruby Federal 12 |
| **Company:** | ConocoPhillips MCBU | **TVD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Project:** | Buckeye | **MD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Site:** | Ruby Federal | **North Reference:** | Grid |
| **Well:** | Ruby Federal 12 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Original Hole | | |
| **Design:** | Actual Plan | | |

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

| | | | | | |
|---|---|---|---|---|---|
| **Site** | Ruby Federal, New Mexico, East | | | | |
| **Site Position:** | | **Northing:** | 666,097.48 ft | **Latitude:** | 32° 49' 48.040 N |
| **From:** | Lat/Long | **Easting:** | 666,763.62 ft | **Longitude:** | 103° 47' 25.559 W |
| **Position Uncertainty:** | 3.5 ft | **Slot Radius:** | 8" | **Grid Convergence:** | 0.29 ° |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well** | Ruby Federal 12, Directional Well | | | | | |
| **Well Position** | **+N/-S** | 0.0 ft | **Northing:** | 666,414.06 ft | **Latitude:** | 32° 49' 51.449 N |
| | **+E/-W** | 0.0 ft | **Easting:** | 661,229.99 ft | **Longitude:** | 103° 48' 30.391 W |
| **Position Uncertainty** | | 3.5 ft | **Wellhead Elevation:** | ft | **Ground Level:** | 3,950.0 ft |

| | | | | | |
|---|---|---|---|---|---|
| **Wellbore** | Original Hole | | | | |
| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
| | BGGM2012 | 6/26/2012 | 7.72 | 60.65 | 48,844 |

| | | | | | |
|---|---|---|---|---|---|
| **Design** | Actual Plan | | | | |
| **Audit Notes:** | | | | | |
| **Version:** | 1 | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |
| **Vertical Section:** | **Depth From (TVD) (ft)** | **+N/-S (ft)** | **+E/-W (ft)** | **Direction (°)** | |
| | 0.0 | 0.0 | 0.0 | 191.18 | |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,432.1 | 0.00 | 0.00 | 2,432.1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,973.8 | 6.50 | 191.18 | 2,972.6 | -30.1 | -6.0 | 1.20 | 1.20 | 0.00 | 191.18 | |
| 6,944.7 | 6.50 | 191.18 | 6,918.0 | -471.1 | -93.1 | 0.00 | 0.00 | 0.00 | 0.00 | Ruby Federal 12 (Alt. |

| | | | |
|---|---|---|---|
| **Database:** | EDM Central Planning | **Local Co-ordinate Reference:** | Well Ruby Federal 12 |
| **Company:** | ConocoPhillips MCBU | **TVD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Project:** | Buckeye | **MD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Site:** | Ruby Federal | **North Reference:** | Grid |
| **Well:** | Ruby Federal 12 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Original Hole | | |
| **Design:** | Actual Plan | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 85.0 | 0.00 | 0.00 | 85.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Conductor** | | | | | | | | | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 660.0 | 0.00 | 0.00 | 660.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Rustler** | | | | | | | | | |
| 685.0 | 0.00 | 0.00 | 685.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Surface** | | | | | | | | | |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 832.0 | 0.00 | 0.00 | 832.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Salado** | | | | | | | | | |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,841.0 | 0.00 | 0.00 | 1,841.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Tansill** | | | | | | | | | |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,047.0 | 0.00 | 0.00 | 2,047.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Yates** | | | | | | | | | |
| 2,100.0 | 0.00 | 0.00 | 2,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 0.00 | 0.00 | 2,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 0.00 | 0.00 | 2,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,343.0 | 0.00 | 0.00 | 2,343.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Seven Rivers** | | | | | | | | | |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,432.1 | 0.00 | 0.00 | 2,432.1 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 0.81 | 191.18 | 2,500.0 | -0.5 | -0.1 | 0.5 | 1.20 | 1.20 | 0.00 |
| 2,600.0 | 2.01 | 191.18 | 2,600.0 | -2.9 | -0.6 | 3.0 | 1.20 | 1.20 | 0.00 |
| 2,700.0 | 3.21 | 191.18 | 2,699.9 | -7.4 | -1.5 | 7.5 | 1.20 | 1.20 | 0.00 |
| 2,800.0 | 4.41 | 191.18 | 2,799.6 | -13.9 | -2.7 | 14.2 | 1.20 | 1.20 | 0.00 |
| 2,900.0 | 5.61 | 191.18 | 2,899.3 | -22.5 | -4.4 | 22.9 | 1.20 | 1.20 | 0.00 |
| 2,973.8 | 6.50 | 191.18 | 2,972.6 | -30.1 | -6.0 | 30.7 | 1.20 | 1.20 | 0.00 |
| 2,977.2 | 6.50 | 191.18 | 2,976.0 | -30.5 | -6.0 | 31.1 | 0.00 | 0.00 | 0.00 |
| **Queen** | | | | | | | | | |
| 3,000.0 | 6.50 | 191.18 | 2,998.7 | -33.0 | -6.5 | 33.7 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 6.50 | 191.18 | 3,098.0 | -44.1 | -8.7 | 45.0 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 6.50 | 191.18 | 3,197.4 | -55.2 | -10.9 | 56.3 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 6.50 | 191.18 | 3,296.7 | -66.3 | -13.1 | 67.6 | 0.00 | 0.00 | 0.00 |
| 3,389.8 | 6.50 | 191.18 | 3,386.0 | -76.3 | -15.1 | 77.8 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM Central Planning | **Local Co-ordinate Reference:** | Well Ruby Federal 12 |
| **Company:** | ConocoPhillips MCBU | **TVD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Project:** | Buckeye | **MD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Site:** | Ruby Federal | **North Reference:** | Grid |
| **Well:** | Ruby Federal 12 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Original Hole | | |
| **Design:** | Actual Plan | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| **Grayburg** | | | | | | | | | |
| 3,400.0 | 6.50 | 191.18 | 3,396.1 | -77.4 | -15.3 | 78.9 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 6.50 | 191.18 | 3,495.5 | -88.5 | -17.5 | 90.3 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 6.50 | 191.18 | 3,594.8 | -99.7 | -19.7 | 101.6 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 6.50 | 191.18 | 3,694.2 | -110.8 | -21.9 | 112.9 | 0.00 | 0.00 | 0.00 |
| 3,778.3 | 6.50 | 191.18 | 3,772.0 | -119.5 | -23.6 | 121.8 | 0.00 | 0.00 | 0.00 |
| **San Andres** | | | | | | | | | |
| 3,800.0 | 6.50 | 191.18 | 3,793.5 | -121.9 | -24.1 | 124.2 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 6.50 | 191.18 | 3,892.9 | -133.0 | -26.3 | 135.5 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 6.50 | 191.18 | 3,992.2 | -144.1 | -28.5 | 146.9 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 6.50 | 191.18 | 4,091.6 | -155.2 | -30.7 | 158.2 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 6.50 | 191.18 | 4,191.0 | -166.3 | -32.9 | 169.5 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 6.50 | 191.18 | 4,290.3 | -177.4 | -35.1 | 180.8 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 6.50 | 191.18 | 4,389.7 | -188.5 | -37.3 | 192.1 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 6.50 | 191.18 | 4,489.0 | -199.6 | -39.4 | 203.5 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 6.50 | 191.18 | 4,588.4 | -210.7 | -41.6 | 214.8 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 6.50 | 191.18 | 4,687.7 | -221.8 | -43.8 | 226.1 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 6.50 | 191.18 | 4,787.1 | -232.9 | -46.0 | 237.4 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 6.50 | 191.18 | 4,886.5 | -244.0 | -48.2 | 248.7 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 6.50 | 191.18 | 4,985.8 | -255.1 | -50.4 | 260.1 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 6.50 | 191.18 | 5,085.2 | -266.2 | -52.6 | 271.4 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 6.50 | 191.18 | 5,184.5 | -277.3 | -54.8 | 282.7 | 0.00 | 0.00 | 0.00 |
| 5,256.8 | 6.50 | 191.18 | 5,241.0 | -283.7 | -56.1 | 289.1 | 0.00 | 0.00 | 0.00 |
| **Glorieta** | | | | | | | | | |
| 5,300.0 | 6.50 | 191.18 | 5,283.9 | -288.4 | -57.0 | 294.0 | 0.00 | 0.00 | 0.00 |
| 5,340.4 | 6.50 | 191.18 | 5,324.0 | -292.9 | -57.9 | 298.6 | 0.00 | 0.00 | 0.00 |
| **Paddock** | | | | | | | | | |
| 5,349.4 | 6.50 | 191.18 | 5,333.0 | -293.9 | -58.1 | 299.6 | 0.00 | 0.00 | 0.00 |
| **Ruby Federal 12 (Top of Target)** | | | | | | | | | |
| 5,400.0 | 6.50 | 191.18 | 5,383.2 | -299.6 | -59.2 | 305.3 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 6.50 | 191.18 | 5,482.6 | -310.7 | -61.4 | 316.7 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 6.50 | 191.18 | 5,582.0 | -321.8 | -63.6 | 328.0 | 0.00 | 0.00 | 0.00 |
| 5,680.6 | 6.50 | 191.18 | 5,662.0 | -330.7 | -65.4 | 337.1 | 0.00 | 0.00 | 0.00 |
| **Blinebry** | | | | | | | | | |
| 5,700.0 | 6.50 | 191.18 | 5,681.3 | -332.9 | -65.8 | 339.3 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 6.50 | 191.18 | 5,780.7 | -344.0 | -68.0 | 350.6 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 6.50 | 191.18 | 5,880.0 | -355.1 | -70.2 | 361.9 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 6.50 | 191.18 | 5,979.4 | -366.2 | -72.4 | 373.3 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 6.50 | 191.18 | 6,078.7 | -377.3 | -74.6 | 384.6 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 6.50 | 191.18 | 6,178.1 | -388.4 | -76.8 | 395.9 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 6.50 | 191.18 | 6,277.5 | -399.5 | -79.0 | 407.2 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 6.50 | 191.18 | 6,376.8 | -410.6 | -81.1 | 418.6 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 6.50 | 191.18 | 6,476.2 | -421.7 | -83.3 | 429.9 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 6.50 | 191.18 | 6,575.5 | -432.8 | -85.5 | 441.2 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 6.50 | 191.18 | 6,674.9 | -443.9 | -87.7 | 452.5 | 0.00 | 0.00 | 0.00 |
| 6,743.4 | 6.50 | 191.18 | 6,718.0 | -448.7 | -88.7 | 457.4 | 0.00 | 0.00 | 0.00 |
| **Tubb** | | | | | | | | | |
| 6,800.0 | 6.50 | 191.18 | 6,774.2 | -455.0 | -89.9 | 463.8 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 6.50 | 191.18 | 6,873.6 | -466.1 | -92.1 | 475.2 | 0.00 | 0.00 | 0.00 |
| 6,933.1 | 6.50 | 191.18 | 6,906.5 | -469.8 | -92.8 | 478.9 | 0.00 | 0.00 | 0.00 |
| **Ruby Federal 12 (BHL)** | | | | | | | | | |
| 6,935.0 | 6.50 | 191.18 | 6,908.4 | -470.0 | -92.9 | 479.1 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM Central Planning | **Local Co-ordinate Reference:** | Well Ruby Federal 12 |
| **Company:** | ConocoPhillips MCBU | **TVD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Project:** | Buckeye | **MD Reference:** | RKB @ 3963.0ft (PD 822) |
| **Site:** | Ruby Federal | **North Reference:** | Grid |
| **Well:** | Ruby Federal 12 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Original Hole | | |
| **Design:** | Actual Plan | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| **Production** | | | | | | | | | |
| 6,944.7 | 6.50 | 191.18 | 6,918.0 | -471.1 | -93.1 | 480.2 | 0.00 | 0.00 | 0.00 |
| **TD - Ruby Federal 12 (Alt. BHL)** | | | | | | | | | |

**Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| Ruby Federal 12 (Top of | 0.00 | 0.00 | 5,324.0 | -371.1 | -73.1 | 666,042.92 | 661,156.85 | 32° 49' 47.780 N | 103° 48' 31.270 W |
| - plan misses target center by 79.2ft at 5349.4ft MD (5333.0 TVD, -293.9 N, -58.1 E) | | | | | | | | | |
| - Circle (radius 150.0) | | | | | | | | | |
| Ruby Federal 12 (Alt. BH | 0.00 | 0.00 | 6,918.0 | -471.1 | -93.1 | 665,942.96 | 661,136.89 | 32° 49' 46.792 N | 103° 48' 31.510 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| Ruby Federal 12 (BHL) | 0.00 | 0.00 | 6,918.0 | -371.1 | -73.1 | 666,042.92 | 661,156.85 | 32° 49' 47.780 N | 103° 48' 31.270 W |
| - plan misses target center by 101.3ft at 6933.1ft MD (6906.5 TVD, -469.8 N, -92.8 E) | | | | | | | | | |
| - Circle (radius 150.0) | | | | | | | | | |

**Casing Points**

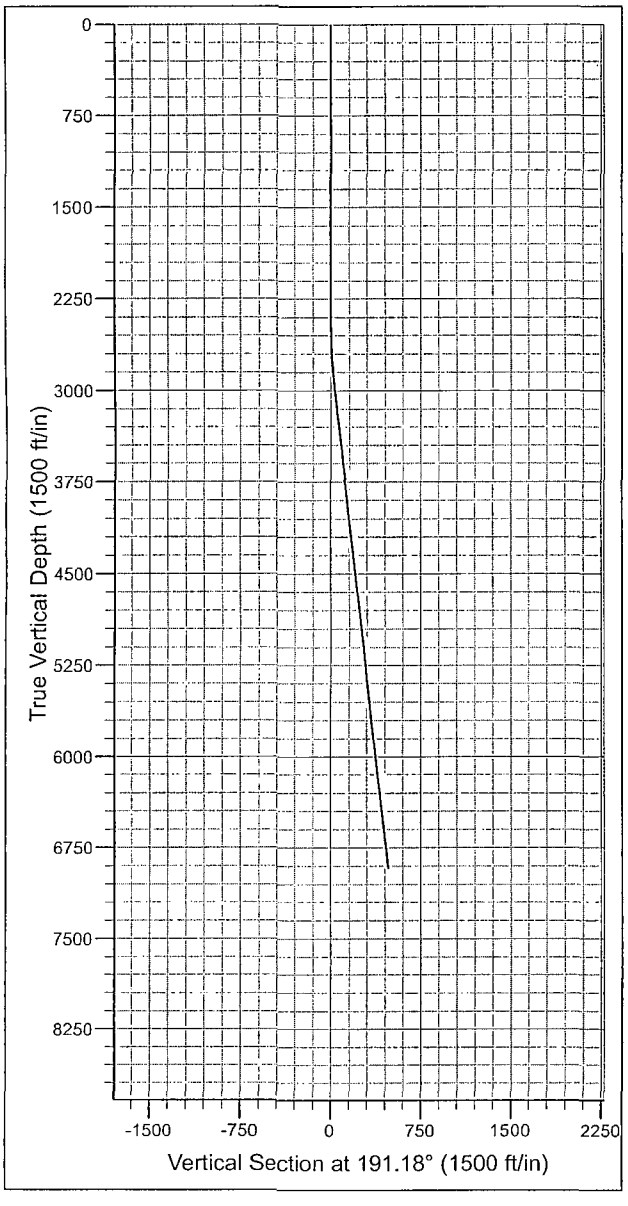
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---|---|---|---|---|
| 85.0 | 85.0 | Conductor | 16 | 20 |
| 6,935.0 | 6,908.4 | Production | 5-1/2 | 7-7/8 |
| 685.0 | 685.0 | Surface | 8-5/8 | 12-1/4 |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 2,977.2 | 2,976.0 | Queen | | 0.00 | |
| 3,389.8 | 3,386.0 | Grayburg | | 0.00 | |
| 5,340.4 | 5,324.0 | Paddock | | 0.00 | |
| 660.0 | 660.0 | Rustler | | 0.00 | |
| 3,778.3 | 3,772.0 | San Andres | | 0.00 | |
| 1,841.0 | 1,841.0 | Tansill | | 0.00 | |
| 5,256.8 | 5,241.0 | Glorieta | | 0.00 | |
| 832.0 | 832.0 | Salado | | 0.00 | |
| 6,944.7 | 6,918.0 | TD | | 0.00 | |
| 5,680.6 | 5,662.0 | Blinebry | | 0.00 | |
| 2,047.0 | 2,047.0 | Yates | | 0.00 | |
| 2,343.0 | 2,343.0 | Seven Rivers | | 0.00 | |
| 6,743.4 | 6,718.0 | Tubb | | 0.00 | |

ConocoPhillips

# Proposed Directional Well Plan




Project: Buckeye
Site: Ruby Federal
Well: Ruby Federal 12
Wellbore: Original Hole
Design: Actual Plan

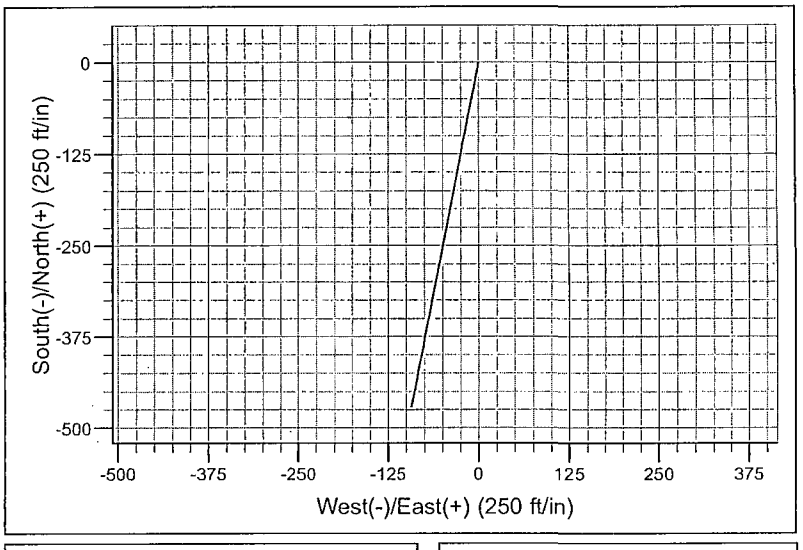
WELL DETAILS: Ruby Federal 12

Ground Level: 3950.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|
| 0.0 | 0.0 | 666414.06 | 661229.99 | 32° 49' 51.449 N | 103° 48' 30.391 W |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 2432.1 | 0.00 | 0.00 | 2432.1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 2973.8 | 6.50 | 191.18 | 2972.6 | -30.1 | -6.0 | 1.20 | 191.18 | 30.7 | |
| 4 | 6944.7 | 6.50 | 191.18 | 6918.0 | -471.1 | -93.1 | 0.00 | 0.00 | 480.2 | Ruby Federal 12 (Alt. BHL) |




CASING DETAILS

| TVD | MD | Name | Size |
|---|---|---|---|
| 85.0 | 85.0 | Conductor | 16 |
| 685.0 | 685.0 | Surface | 8-5/8 |
| 6908.4 | 6935.0 | Production | 5-1/2 |

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---|---|---|
| 660.0 | 660.0 | Rustler |
| 832.0 | 832.0 | Salado |
| 1841.0 | 1841.0 | Tansill |
| 2047.0 | 2047.0 | Yates |
| 2343.0 | 2343.0 | Seven Rivers |
| 2976.0 | 2977.2 | Queen |
| 3386.0 | 3389.8 | Grayburg |
| 3772.0 | 3778.3 | San Andres |
| 5241.0 | 5256.8 | Glorieta |
| 5324.0 | 5340.4 | Paddock |
| 5662.0 | 5680.6 | Blinebry |
| 6718.0 | 6743.4 | Tubb |
| 6918.0 | 6944.7 | TD |

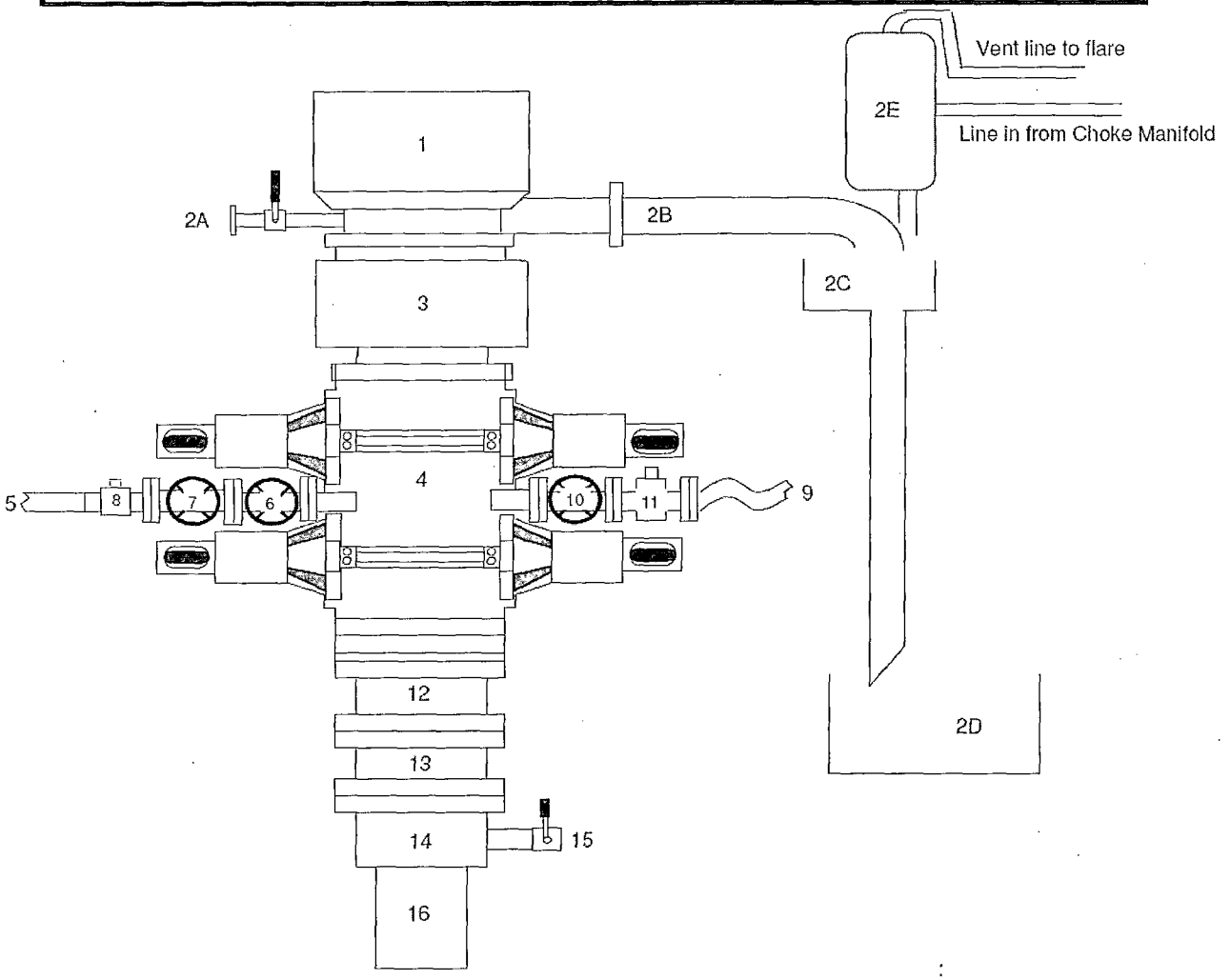

Azimuths to Grid North
True North: -0.28°
Magnetic North: 7.43°

Magnetic Field
Strength: 48844.1snT
Dip Angle: 60.65°
Date: 6/26/2012
Model: BGGM2012

Attachment # 1

BLOWOUT PREVENTER ARRANGEMENT

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



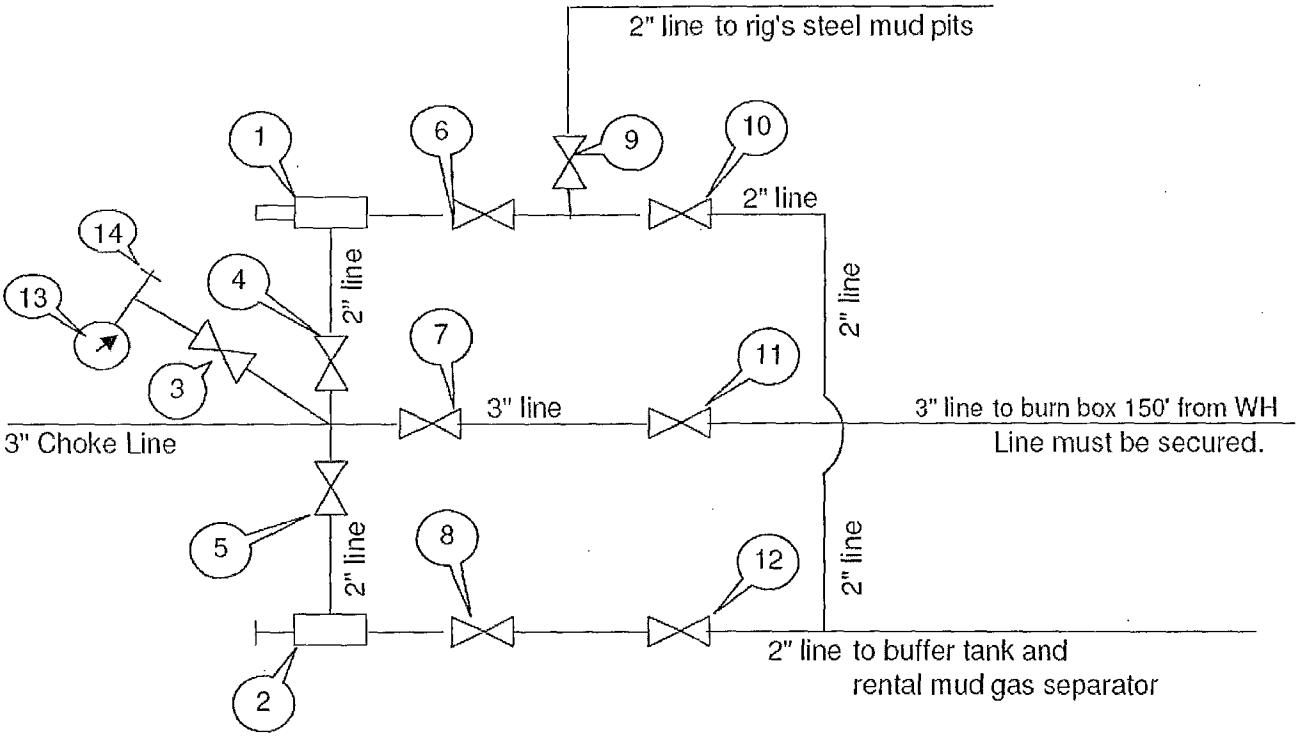

| Item | Description |
|---|---|
| 1 | Rotating Head, 11" |
| 2A | Fill up Line and Valve |
| 2B | Flow Line (10") |
| 2C | Shale Shakers and Solids Settling Tank |
| 2D | Cuttings Bins for Zero Discharge |
| 2E | Rental Mud Gas Separator with vent line to flare and return line to mud system |
| 3 | 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 (5M Stainless Steel Coflex Line, 3-1/8" 3M API Type 6B, 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 | 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 |

Submitted by: James Chen, Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 25-Sep-2012

Attachment # 2

# 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

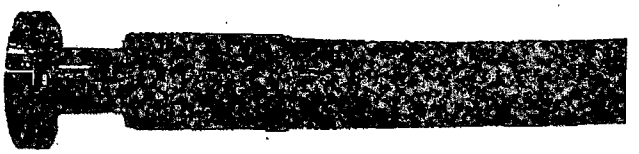
Attachment # 1

RELIANCE
Industrial Products USA, Ltd.

[redacted]

[redacted]

RELIANCE



# 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 |

[redacted]

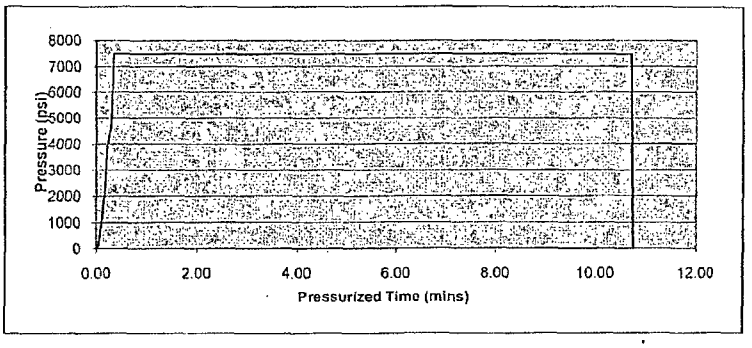
| Fittings | Flanges | Hammer Unions | Other |
|---|---|---|---|
| RC4X5055 | R35 - 3-1/8 5000# API Type 6B | All Union Configurations | LP Threaded Connectio |
| RC3X5055 | R31 - 3-1/8 3000# API Type 6B | | Graylock |
| RC4X5575 | | | Custom Ends |

Attachment # 2

RELIANCE
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.: | 27792 |
| P.O. #: | RIG 822 | Date: | 9/21/2012 |
| Invoice #: | 27792 | | |
| Material: | 3 1/2" FIREGUARD | | |
| Description: | 3 1/2" X 10' | | |
| Coupling 1: | 3 1/2" FLANGE R31 | | |
| " 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 #12
Location: UL K, Sec. 18, T17S, R32E
Date: 09-19-12

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
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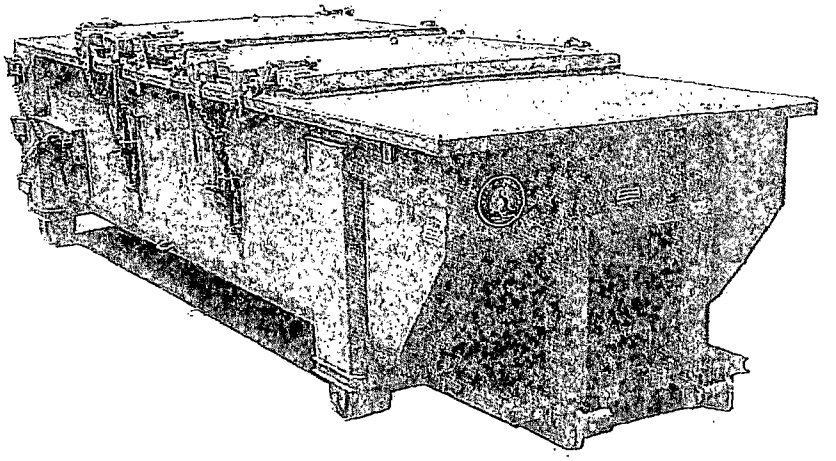
# SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3 x 4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember
WHEELS: 10 DIA x 9 long with rease 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'-1" long (21'-8" inside), 99" wide (88" inside), see drawing for height
OPTIONS: Steel grit blast and special paint, Amdroll, Heil 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

# Heavy Duty Split Metal Rolling Lid



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| 20 YD | 41 | 53 |
| 25 YD | 53 | 65 |
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