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Sant 3160-3 March 2012)				OMB No. 1004- Expires October 3	
UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN	NTERIOR	HOBBS C	bbs CD	5. Lease Serial No. NMLC 029405B	
APPLICATION FOR PERMIT TO				6. If Indian, Allotee or Trib N/A	e Name
la. Type of work: XDRILL REENTE	ER	FEB		7 If Unit or CA Agreement, N/A	Name and No.
lb. Type of Well: X Oil Well Gas Well Other	X Si	ngle Zone 🔲 Multi	ple Zone	8. Lease Name and Well No Ruby Federal	27
2. Name of Operator ConocoPhillips Company	17817	~		9. API Well No. 30-025- 4/	652
3a. Address 600 N. Dairy Ashford Rd., Off P10-4-4054		(include area code) 06-5281		10. Field and Pool, or Explorat Maljamar; Yeso Wes	· / / L / L /
Houston, TX 77079 4. Location of Well (<i>Report location clearly and in accordance with any</i> At surface 1480' FNL and 2380' FEL; UL G, Sec. 1	7, T17S, R	32E (G)		11. Sec., T. R. M. or Blk.and S Sec. 17, T17S, R32E	Survey or Area
At proposed prod. zone 2425' FNL and 2230' FWL; UL 4. Distance in miles and direction from nearest town or post office* Approximately 3 miles south of Maljamar, New M		/, 11/S, R32E	F)	12. County or Parish Lea County	13. State NM
5. Distance from proposed* About location to nearest 215' at TD (Also to nearest drig, unit line, if any)	16. No. of a 1601. 7		17. Spacin 40	g Unit dedicated to this well	
8. Distance from proposed location* 130' to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed 7030' 7	1Depth TVD/7176' MD	20. BLM/ ES008	BIA Bond No. on file 5	
 Elevations (Show whether DF, KDB, RT, GL, etc.) 4011' GL 	22. Approxin 03/07/	nate date work will sta 2014	rt*	23. Estimated duration 8 days	
	24. Attac	hments			
 he following, completed in accordance with the requirements of Onshore Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office). 		 Bond to cover the litem 20 above). Operator certification 	ne operation ation	is form: ns unless covered by an existing prmation and/or plans as may be	·
25. Sjenature Susan B. Mounder itle		(Printed/Typed) n B. Maunder		Date	29/13
Senior Regulatory Specialist pproved by (Signature)	Name	(Printed/Typed)		Date	
itle /S/ STEPHEN J. CAFFEY	Office	CARLSBAD		FEB	- 4 2014
FIELD MANAGER pplication approval does not warrant or certify that the applicant holds onduct operations thereon.	legal or equit		s in the subj	ect lease which would entitle the	11
tonditions of approval, if any, are attached. title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri ates any false, fictitious or fraudulent statements or representations as to	me for any pe	rson knowingly and w		PPROVAL FOR TV ake to any department or agency	
Continued on page 2)		KZ	Ros	*(Instruction well Controlled W	ater Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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Approval Subject to General Requirements & Special Stipulations Attached

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FEB 1 0 2014

Drilling Plan ConocoPhillips Company Maljamar; Grayburg-San Andres, Yeso (west)

Ruby Federal #27

Lea County, New Mexico

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

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	760	760	Anhydrite
Salado (top of salt)	938	938	Salt
Grayburg	3487	1960	Gas, Oil and Water
San Andres	3851	3523	Gas, Oil and Water
Glorieta	5340	3905	Gas, Oil and Water
Paddock	5424	5459	Gas, Oil and Water
Blinebry	6165	5545	Gas, Oil and Water
Tubb	6780	6297	Gas, Oil and Water
Deepest estimated perforation	6780	6297	Deepest estimated perf. is ~ Top of Tubb
Total Depth (maximum)	7030	7176	200' below deepest estimated perforation

All of the water bearing formations identified above will be protected by setting of the <u>8-5/8</u> surface casing <u>25' – 70' into the Rustler formation</u> 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 <u>5-1/2</u>" production casing <u>10' off bottom of TD</u> 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:

5ª	Hole Size		Interval D RKB (ft)	OD	Wt			MIY	Col	Jt Str		Safety Fac lated per Co Corporate C	nocoPhillips
Туре	(in)	From	To	(inches)	(lb/ft)	Gr	Conn	(psi)	(psi)	(klbs)	Burst DF	Collapse DF	Jt Str DF (Tension) Dry/Buoyant
Cond	20	0	40' 85' (30' 75' BGL)	16	0.5" wali	В	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	785 - 830 839	8-5/8	24#	J-55	STC	2950	1370	244	1.58	3.71	3.62
Prod	7-7/8	0	7121' – 7166'	5-1/2	17#	L-80	LTC	7740	6290	338	2.08	2.48	1.96

The casing will be suitable for H_2S Service. All casing will be new.

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 Safety Factors - BLM Criteria:

Туре	Depth	Wt	MIY .	Col	Jt Str	Drill Fluid	Burst	Collapse	Tensile-Dry	Tens-Bouy
Surface Casing	830	24	2950	1370	244000	8.5	8.04	3.73	12.2	14.1
Production Casing	7166	17	7.740	6290	338000	10	2.08	1.69	2.77	3.27

Casing 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

		tenta fer mannant boolgit i dotoro	
	Burst	Collapse	Axial
Casing Design Factors	1.15	1.05	1.4

Production Casir	8-5/8" 24# J-55 STC)		83	01	24 29	50 13	0 24400	4329 0 3810		.5 1.5	8 3.	71 3.	3	,		
	ig (5-1/2* 17# L-80 LTC)		716		17 774		33800			10 2.0						
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	ocoPhillips Required Loa			,	· ·				· · · ·	*						
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	ilemal (burst) load on the Product pressure that would fit CenscoPh				ian where	the maxim	im acoveb	te working p	reasure			:				
(access) is the		Lasing Test Pressure =				Pres	licted Pore	Pressure at	- (ताप्रक वा	85	5 ppg					
		ing Pressure (BOPE) =		0 psi	•			adlent at She			3 ppg				. •	
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	urface Casing Burst Safety Facto roduction Casing MAWP for the F								le Surface P	ressure (MASP)					
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Surface Cosing	Burst Safety Factor:								÷ •							
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	MPSP (Field SW @ Builhe				0,052		19,23	-	432	+	200	=.	598			
	Case #3. MPSP (Kick Vol.@	g next section 1D) = IPSP (PPTD - GG) =			0.052		8,55 8,55	-	633,6 716,6		367		2786			
'Cas	#3 & #4 Limited to MPSP				0.052		19,23	+	0.2)=	2469 839					
1.		d + Test Pressure) =			0,052		8.5	÷	1500		1657	·.				
	Burst Safety Factor (Max.	MPSP or MASP) =	2950	<u>۱</u>	1867	' =	1.58		4							
Production Casi	ng Burst Safety Factor:		7400		0.025	•	46			'n				-		
		MPSP. (MWhyd TD) = PSP. (PPTD - GG) =			0.052		10 8.55		3726.3 716.6		2469			. ·.		
* 1		ctor (Max, MPSP) =			3726		2.08		7 10.0	-	2403		· · · .			
MAWP fo	r the Fracture Stimulation (7740		1.15		6730									
an a l																
Colloma	onocóPhillips Réquired L	and Patients														
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	irface Casing Collapse Safely Fa															
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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:

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		vals MD	Weight ppg	Sx	Vol Cuft	Additives	Yield ft ³ /sx
Lead	Class C	Surface	485' – 530'	13.6	300	510	2% Extender 2% CaCl ₂ 0.125 lb/sx LCM if needed 0.2% Defoamer Excess =75% based on gauge hole volume	1.70
Tail	Class C	485' – 530'	785' – 830'	14.8	200	268	1% CaCl2 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:

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		rvals MD	Weight ppg	Sx	Vol Cuft	Additives	Yield ft ³ /sx
Lead	50:50 Poz/C	Surface	5200'	11.8	700	1820	10% Bentonite 5% Salt 0.2%-0.4% Fluid loss additive 0.125 lb/sx LCM if needed Excess ≈ 220% or more if needed based on gauge hole volume	2.6
Tail	Class H	5200'	7121' – 7166'	16.4	400	428	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.

Ruby Federal #27

(Date: 10/28/2013)

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 <u>11" 3M</u> 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 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 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.** A variance is respectfully requested to allow for the use of flexible hose. The variance request is included as a separate enclosure with attachments.

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	pН	Vol bbl
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud in Steel Pits	8.5 - 9.0	28 - 40	N.C.	N.C.	120 – 160
Surface Casing Point to TD	Brine (Saturated NaCl ₂) in Steel Pits	10	29	N.C.	10 – 11	500 – 1000
Conversion to Mud at TD	Brine Based Mud (NaCl ₂) in Steel Pits	10	33 – 40	5 – 10	10 – 11	0 – 750

Gas detection equipment and pit level flow monitoring equipment will be on location. A flow paddle will be installed in the flow line to monitor relative amount of mud flowing in the non-pressurized return line. Mud probes will be installed in the individual tanks to monitor pit volumes of the drilling fluid with a pit volume totalizer. Gas detecting equipment and H2S monitor alarm will be installed in the mud return system and will be monitored. A mud gas separator will be installed and operable before drilling out from the Surface Casing. The gases shall be piped into the flare system. Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14.

In the event that the well is flowing from a waterflow, then we would discharge excess drilling fluids from the steel mud pits through a fas-line into steel frac tanks at an offset location for containment. Depending on the rate of waterflow, excess fluids will be hauled to an approved disposal facility, or if in suitable condition, may be reused on the next well.

No reserve pit will be built.

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. We do not plan to keep any weighting material at the wellsite. Also, we propose an option to not mud up leaving only brine in the hole if we have good hole stability.

6. Logging, Coring, and Testing Program:

- a. No drill stem tests will be done
- b. Remote gas monitoring 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)

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 H₂S 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, Hydrogen Sulfide Operations. Also, ConocoPhillips will provide an H2S Contingency Plan (please see copy attached) and will keep this plan updated and posted at the wellsite during the drilling operation.

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 this well as early as 2014 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:

Proposed 28 October 2013 by: James Chen Drilling Engineer, ConocoPhillips Company Phone (832) 486-2184 Cell (832) 768-1647

ConocoPhillips MCBU

Buckeye Ruby Federal Ruby Federal 27

Ruby Federal 27

Plan: Slant Plan

Standard Planning Report - Geographic

30 September, 2013

Planning Report - Geographic

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Version: Vertical Section: Plan Sections. Measured Depth In	nclination	Azimuth	(usft) 0.0 Vertical Depth		(usft) 0.0 +E/-W	(us 0 Dogleg Rate	sft) .0 Build Rate	21 Turn Rate	(°), 4.82 TFO	Target
Version: Vertical Section: Plan Sections. Measured Depth In (usft)	nclination (°)	Azimuth (°)	(usft) 0.0 Vertical Depth (usft)	+N/-S (usft)	(usft) 0.0 +E/-W (usft)	(us 0 Dogleg Rate (°/100usft)	sft) .0 Build Rate (°/100usft)	21 Turn Rate (°/100usft)	(°) 4.82 TFO (°)	Target
Version: Vertical Section: Plan Sections. Measured Depth In (usft) 0.0 1,960.0	nclination (°) 0.00 0.00	Azimuth (°) 0.00 0.00	(usft) 0.0 Vertical Depth. (usft) 0.0 1,960.0	+N/-S (usft) 0.0 0.0	(usft) 0.0 +E/-W (usft) 0.0 0.0	(us 0. Dogleg Rate (°/100usft) 0.00 0.00	sft) .0 Build Rate (°/100usft) 0.00 0.00	21 Turn Ráte (°/100usft) 0.00 0.00	(°) 4.82 TFO (°) 0.00 0.00	Target
Version: Vertical Section: Plan Sections. Measured Depth In (usft) 0.0 1,960.0 3,121.5	nclination (°) 0.00 0.00 17.42	Azimuth (°) 0.00 0.00 214.82	(usft) 0.0 Vertical Depth. (usft) 0.0 1,960.0 3,103.7	+N/-S (usft) 0.0 0.0 -143.9	(usft) 0.0 +E/-W (usft) 0.0 0.0 -100.1	(us 0. Dogleg Rate (°/100usft) 0.00 0.00 1.50	sft) .0 Build Rate (°/100usft) 0.00 0.00 1.50	21 Turn Ráte (°/100usft) 0.00 0.00 0.00	(°) 4.82 TFO (°) 0.00 0.00 214.82	Target
Version: Vertical Section: Plan Sections. Measured Depth In (usft) 0.0 1,960.0 3,121.5 5,049.9	nclination (°) 0.00 0.00 17.42 17.42	Azimuth (*) 0.00 0.00 214.82 214.82	(usft) 0.0 Vertical Depth. (usft) 0.0 1,960.0 3,103.7 4,943.6	+N/-S (usft) 0.0 0.0 -143.9 -617.9	(usft) 0.0 +E/-W (usft) 0.0 0.0 -100.1 -429.8	(us 0. Dogleg Rate (°/100usft) 0.00 0.00 1.50 0.00	sft) .0 Build Rate (°/100usft) 0.00 0.00 1.50 0.00	21 Turn Ráte (°/100usft) 0.00 0.00 0.00 0.00 0.00	(°) 4.82 TFO (°) 0.00 0.00 214.82 0.00	.,
Version: Vertical Section: Plan Sections. Measured Depth In (usft) 0.0 1,960.0 3,121.5	nclination (°) 0.00 0.00 17.42	Azimuth (°) 0.00 0.00 214.82	(usft) 0.0 Vertical Depth. (usft) 0.0 1,960.0 3,103.7	+N/-S (usft) 0.0 0.0 -143.9	(usft) 0.0 +E/-W (usft) 0.0 0.0 -100.1	(us 0. Dogleg Rate (°/100usft) 0.00 0.00 1.50	sft) .0 Build Rate (°/100usft) 0.00 0.00 1.50	21 Turn Ráte (°/100usft) 0.00 0.00 0.00	(°) 4.82 TFO (°) 0.00 0.00 214.82 0.00	Target Ruby Federal 27 (Pl

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Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Ruby Federal 27
Company:	ConocoPhillips MCBU	TVD Reference:	, RKB @ 4024.0usft (PD 822)
Project:	Buckeye	MD Reference:	RKB @ 4024.0usft (PD 822)
Site:	Ruby Federal	North Reference:	Grid
Well:	Ruby Federal 27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Ruby Federal 27		·
Design:	Slant Plan	-	•

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easured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(usft)	(°)	(°)	(usft):	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15,830 N	103° 47' 14.24
85.0	0.00	0.00	85.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
Conduct	or								
100.0	0.00	0.00	100.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
200.0	0.00	0.00	200.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
300.0	0.00	0.00	300.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
400.0	0.00	0.00	400.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
500.0	0.00	0.00	500.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
600.0	0.00	0.00	600.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
700.0	0.00	0.00	700.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
760.0	0.00	0.00	760.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
Rustler	0.00	0.00	200.0	0.0	0.0	668.040.00	007 744 04	208 501 45 000 N	1008 471 44 04
800.0	0.00	0.00	800.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
830.0	0.00	0.00	830.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
Surface 900.0	0.00	0.00	900.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
938.0	0.00	0.00	938.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
Salado	0.00	0.00	000.0	0.0	0.0	000,010.02	007,714.01	02 00 10,000 11	100 47 14.24
1,000.0	0.00	0.00	1,000.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,100.0	0.00	0.00	1,100.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,200.0	0.00	0.00	1,200.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,300.0	0.00	0.00	1,300.0	0.0	0.0	668,910,92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,400.0	0.00	0.00	1,400.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,500.0	0.00	0.00	1,500.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,600.0	0.00	0.00	1,600.0	0.0	0:0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,700.0	0.00	0.00	1,700.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,800.0	0.00	0.00	1,800.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,900.0	0.00	0.00	1,900.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
1,960.0	0.00	0.00	1,960.0	0.0	0.0	668,910.92	667,714.91	32° 50' 15.830 N	103° 47' 14.24
Tansill									
2,000.0	0.60	214.82	2,000.0	-0.2	-0.1	668,910.75	667,714.79	32° 50' 15.828 N	103° 47' 14.24
2,100.0	2.10	214.82	2,100.0	-2.1	-1.5	668,908.82	667,713.44	32° 50' 15.809 N	103° 47' 14.25
2,200.0	3.60	214.82	2,199.8	-6.2	-4.3	668,904.74	667,710.61	32° 50' 15.769 N	103° 47' 14.29
2,300.0	5.10	214.82	2,299.6	-12.4	-8.6	668,898.51	667,706.27	32° 50' 15.708 N	103° 47' 14.34
2,400.0	6.60	214.82	2,399.0	-20.8	-14.5	668,890.14	667,700.46	32° 50' 15.625 N	103° 47' 14.41
2,500.0	8.10	214.82	2,498.2	-31.3	-21.8	668,879.64	667,693.15	32° 50' 15.522 N	103° 47' 14.49
2,600.0	9.60	214.82	2,597.0	-43.9	-30.5	668,867.01	667,684.37	32° 50' 15.397 N	103° 47' 14.60
2,700.0	11.10	214.82	2,695.4	-58.7	-40.8	668,852.26	667,674.11	32° 50' 15.252 N	103° 47' 14.72
2,800.0	12.60	214.82	2,793.2	-75.5	-52,5 -65.7	668,835.41	667,662.38	32° 50' 15.085 N	103° 47' 14.86
2,900.0 3,000.0	14.10 15.60	214.82 214.82	2,890.5 2,987.2	-94.5 -115.5	-80.3	668,816.45 668,795.42	667,649.20	32° 50' 14.899 N	103° 47' 15.01
3,100.0	17.10	214.82	3,083.2	-113.5	-80.3 -96.4	•	667,634.57 667,618.49	32° 50' 14.691 N	103° 47' 15.18
3,100.0	17.10	214.82	3,083.2 3,103.7	-138.6 -143.9	-96.4 -100.1	668,772.31 668,767.06	667,614.85	32° 50' 14.463 N 32° 50' 14.412 N	103° 47' 15.37 103° 47' 15.42
3,121.5 3,200.0	17.42	214.82	3,103.7	-143.9	-100.1	668,747.78	667,601.43	32° 50' 14.412 N 32° 50' 14.221 N	103° 47' 15.42 103° 47' 15.58
3,200.0 3,300.0	17.42	214.82	3,178.0	-187.7	-113.5	668,723.20	667,584.33	32° 50′ 13.979 N	103 47 15.58 103° 47' 15.78
3,400.0	17.42	214.82	3,369.4	-212.3	-147.7	668,698.62	667,567.24	32° 50' 13.979 N 32° 50' 13.737 N	103° 47' 15.78
3,500.0	17.42	214.82	3,464.8	-236.9	-164.8	668,674.04	667,550.14	32° 50' 13.494 N	103° 47' 15.98
3,523.2	17.42	214.82	3,487.0	-242.6	-168.8	668,668.32	667,546.17	32° 50' 13.434 N	103° 47' 16.13
Grayburg	,,, <u>,</u> ,	211.04	0, 101.0	- 16.0	,	000,000.02	001,040.11	52 55 10,405 11	100 47 10.20
3,600.0	17.42	214.82	3,560.2	-261.5	-181.9	668,649.46	667,533.04	32° 50' 13.252 N	103° 47' 16.38
3,700.0	17.42	214.82	3,655.6	-286.1	-199.0	668,624.88	667,515.95	32° 50' 13.010 N	103° 47' 10.58
3,800.0	17.42	214.82	3,751.1	-310.6	-216.1	668,600.30	667,498.85	32° 50' 12.767 N	103° 47' 16.79
3,900.0	17.42	214.82	3,846.5	-335.2	-233.2	668,575.72	667,481.75	32° 50' 12.525 N	103° 47' 16.99

Planning Report - Geographic

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Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Ruby Federal 27	
Company:	ConocoPhillips MCBU	TVD Reference:	RKB @ 4024.0usft (PD 822)	i
Project:	Buckeye	MD Reference:	RKB @ 4024.0usft (PD 822)	
Site:	Ruby Federal	, North Reference:	Grid	Į.
Well:	Ruby Federal 27	Survey Calculation Method:	Minimum Curvature	
Wellbore:	'Ruby Federal 27		ì	
Design:	Slant Plan			

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leasured Depth I (usft)	nclination (°)	Azimúth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,904.8	17.42	214.82	3,851.0	-336.4	-234.0	668,574.55	667,480.94	32° 50' 12.514 N	103° 47' 17.00
San Andre	s								
4,000.0	17.42	214.82	3,941.9	-359.8	-250.3	668,551.14	667,464.66	32° 50' 12.283 N	103° 47' 17.19
4,100.0	17.42	214.82	4,037.3	-384.4	-267.4	668,526.56	667,447.56	32° 50' 12.040 N	103° 47' 17.39
4,200.0	17.42	214.82	4,132.7	-409.0	-284.5	668,501.98	667,430.46	32° 50' 11.798 N	103° 47' 17.59
4,300.0	17.42	214.82	4,228.1	-433.5	-301.6	668,477.40	667,413.37	32° 50' 11.556 N	103° 47' 17.80
4,400.0	17.42	214.82	4,323.5	-458.1	-318.7	668,452.82	667,396.27	32° 50' 11.313 N	103° 47' 18.00
4,500.0	17.42	214.82	4,418.9	-482.7	-335.8	668,428.24	667,379.18	32° 50' 11.071 N	103° 47' 18.20
4,600.0	17.42	214.82	4,514.3	-507.3	-352.9	668,403.66	667,362.08	32° 50' 10.829 N	103° 47' 18.40
4,700.0	17.42	214.82	4,609.8	-531.9	-369.9	668,379.08	667,344.98	32° 50' 10.586 N	103° 47' 18.60
4,800.0	17.42	214.82	4,705.2	-556.5	-387.0	668,354.50	667,327.89	32° 50' 10.344 N	103° 47' 18.81
4,900.0	17.42	214.82	4,800.6	-581.0	-404.1	668,329.92	667,310.79	32° 50' 10.102 N	103° 47' 19.01
5,000.0	17.42	214.82	4,896.0	-605.6	-421.2	668,305.34	667,293.69	32° 50' 9.859 N	103° 47' 19.21
5,049.9	17.42	214.82	4,943.6	-617.9	-429.8	668,293.09	667,285.17	32° 50' 9.739 N	103° 47' 19.31
5,100.0	16.67	214.82	4,991.5	-629.9	-438.2	668,281.02	667,276.78	32° 50' 9.620 N	103° 47' 19.41
5,200.0	15.17	214.82	5,087.7	-652.5	-453.8	668,258.51	667,261.11	32° 50' 9.398 N	103° 47' 19.59
5,300.0	13.67	214.82	5,184.5	-672.9	-468.0	668,238.06	667,246.89	32° 50' 9.196 N	103° 47' 19.76
5,400.0	12.17	214.82	5,282.0	-691.3	-480.8	668,219.71	667,234.13	32° 50' 9.015 N	103° 47' 19.91
5,459.3	11.28	214.82	5,340.0	-701.1	-487.7	668,209.82	667,227.25	32° 50' 8.918 N	103° 47' 19.99
Glorieta									
5,500.0	10.67	214.82	5,380.0	-707.5	-492.1	668,203.45	667,222.82	32° 50' 8.855 N	103° 47' 20.05
5,544.7	10.00	214.82	5,424.0	- 714.1	-496.7	668,196.86	667,218.24	32° 50' 8.790 N	103° 47' 20.10
Paddock									
5,600.0	10.00	214.82	5,478.4	-722.0	-502.2	668,188.99	667,212.76	32° 50' 8.712 N	103° 47' 20.16
5,700.0	10.00	214.82	5,576.9	-736.2	-512.1	668,174.73	667,202.84	32° 50' 8.572 N	103° 47' 20.28
5,800.0	10.00	214.82	5,675.4	-750.5	-522.0	668,160.48	667,192.93	32° 50' 8.431 N	103° 47' 20.40
5,900.0	10.00	214.82	5,773.9	-764.7	-531.9	668,146.22	667,183.01	32° 50' 8.290 N	103° 47' 20.52
6,000.0	10.00	214.82	5,872.4	-779.0	-541.8	668,131.97	667,173.10	32° 50' 8.150 N	103° 47' 20.63
6,100.0	10.00	214.82	5,970.8	-793.3	-551.8	668,117.71	667,163.18	32° 50' 8.009 N	103° 47' 20.75
6,200.0	10.00	214.82	6,069.3	-807.5	-561.7	668,103.46	667,153.27	32° 50' 7.869 N	103° 47' 20.87
6,297.2	10.00	214.82	6,165.0	-821.4	-571.3	668,089.61	667,143,63	32° 50' 7.732 N	103° 47' 20.98
Blinebry									
6,300.0	10.00	214.82	6,167.8	-821.8	-571.6	668,089.20	667,143.35	32° 50' 7.728 N	103° 47' 20.98
6,400.0	10.00	214.82	6,266.3	-836.0	-581.5	668,074.95	667,133.44	32° 50' 7.588 N	103° 47' 21.10
6,500.0	10.00	214.82	6,364.8	-850.3	-591.4	668,060.69	667,123.52	32° 50' 7.447 N	103° 47' 21.22
6,600.0	10.00	214.82	6,463.2	-864.5	-601.3	668,046.44	667,113.61	32° 50' 7,307 N	103° 47' 21.34
6,700.0	10.00	214.82	6,561.7	-878.8	-611.3	668,032.19	667,103.69	32° 50' 7.166 N	103° 47' 21.45
6,800.0	10.00	214.82	6,660.2	-893.0	-621.2	668,017.93	667,093,78	32° 50' 7.026 N	103° 47' 21.57
6,900.0	10.00	214.82	6,758.7	-907.3	-631.1	668,003.68	667,083.86	32° 50' 6.885 N	103° 47' 21.69
6,921.6	10.00	214.82	6,780.0	-910.4	-633.2	668,000.59	667,081.72	32° 50' 6.855 N	103° 47' 21.71
Tubb									
7,000.0	10.00	214.82	6,857.2	-921.6	-641.0	667,989.42	667,073,95	32° 50' 6.744 N	103° 47' 21.80
7,100.0	10.00	214.82	6,955,6	-935.8	-650.9	667,975.17	667,064.03	32° 50' 6.604 N	103° 47' 21.92
7,166.0	10.00	214.82	7,020.6	-945.2	-657.5	667,965.76	667,057.49	32° 50' 6.511 N	103° 47' 21.02
Production		2, 1.02	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0.2	001.0	501,000.10	307,007.40	52 00 0.011 N	100 47 22.00
7,175.5	10.00	214.82	7,030.0	-946.6	-658.4	667,964.40	667,056.55		

Planning Report - Geographic

Database:	EDM Cen	tral Planning			Local Co-o	rdinate Reference:	Well Ru	by Federal	27			
Company:	' ConocoPi	hillips MCBU			TVD Refere	ence:		RKB @ 4024.0usft (PD 822)				
Project:	Buckeye				MD Referen	nce:	RKB @	4024.0usft	(PD 822)			
Site:	Ruby Fed	leral			North Refe	rence:	Grid					
Nell:	Ruby Fed	leral 27			Survey Cal	culation Method:	Minimu	m Curvature	е			
Wellbore:	Ruby Fed	leral 27			1							
Design:	Slant Plai	1		• autom. • • • • •	<u>.</u>				.	• • • • • • • • • • • • • • • • • • •		
Design Targets	· · · ·					· · · · · · ·		· · · · · · · · ·		···· ··· ··· ···		
Target Name - hit/miss tar - Shape	get Dip Ang (°)	le Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Lati	tude	Longitude		
Ruby Federal 27 - plan misse - Circle (rad	es target center by).00 0.0 ⁰ 141.1usft at 5		-831.7 5448.5 TVD,	-578.5 -717.6 N, -499	668,079.23 .2 E)	667,136.45	32° :	50' 7.630 N	103° 47' 21.070 V		
Casing Points												
	Measured	Vertical					c	Casing	Hole			
	Depth	Depth				,		iameter	Diameter			
	(usft)	(usft)			Name			(")	(")			
	85,0	85.	0 Conductor					16	2	o – – – – – –		
	830.0	830.	0 Surface					8-5/8	12-1/-	4		
	7,166.0	7,020.	6 Production					5-1/2	7-7/	3		
Formations			· · · · · ·			· · · · · · · · · · · · · · · · · · ·	· · ·					
	Measured	Vertical							Dip			
	Depth	Depth						Dip	Direction			
	(usft)	(usft)		Name		Litholog	у	(°)	(°)			
	760.0	760.0	Rustler				- ·· ·-	0.00				
	938.0		Salado					0.00				
	1,960.0		Tansill					0.00				
	3,523.2	-	Grayburg					0.00				
	3,904.8		San Andres					0.00				
								0.00				
	5,459.3	5,340.0	Glorieta									
	•	•	Glorieta Paddock					0.00				
	5,459.3	5,424.0										

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Proposed Directional Well Plan

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Ruby Federal #27

(Date: 10/28/2013)

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- 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
- Gate Valve, 2-1/16" 5M 10
- 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.

Submitted by: James Chen Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company Date: 21-March-2013

(Date: 10/28/2013)

Request for Variance

ConocoPhillips Company

Lease Number: NM LC 029405B Well: Ruby Federal #27 Location: Sec. 17, T17S, R32E Date: 10/29/2013

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 Specification from Manufacturer
- Attachment # 2 Mill & Test Certification from Manufacturer

Contact Information:

Program prepared by: James Chen Drilling Engineer, ConocoPhillips Company Phone (832) 486-2184 Cell (832) 768-1647 Date: 26 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).

3 76.2 5.11 129.79 14.5 21.46 48 1219.2 5000 34 3-1/2 88.9 5.79 147.06 20.14 29.80 54 1371.6 5000 34 Fittings Flanges Hammer Unions Other RC4X5055 R35 - 3-1/8 5000# API Type 6B All Union Configurations LP Threaded Conneu RC3X5055 R31 - 3-1/8 3000# API Type 6B Graylock	Nom.	D	Nor	n OD	Wei	ght	Min Be	nd Radius	i Max	(WP
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Attachment # 2

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

ConocoPhillips Company Well: Ruby Federal #27 Location: Sec. 17, T17S, R32E Date: 10/29/2013

1.1

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 hauloff bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs' 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 needed 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:

R-360 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 R-360 is NM-01-0006.

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 R-360 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: 281-206-5244 Cell: 832.678.1647

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: insi de liner hooks DOOR: 3/16" PL with tubing frame FRONT: 3/16" PL slant (ormed

PICK UP: Standard cable with 2" x 6" x 1/4" ralls, quisseltat eachterossmember

WHEELS 10/DIA x 9 long with rease fittings DOOR LATCH Sindependent ratches binders with chains, vertical second latch GASKE TS: Extruded rubber seal with metal

retainer s WELDS: All welds continuous except sub

structur e crossmembers FINISH: Coated Inside and out with direct to metal, rust inhibiting acrylic enamel color coat HYDROTESTING: Full capacity static test DIMEN SIONS: 22-11* long (21-8 inside), 99' wide (88' inside), see drawing for height OPTIONS: Steel grit blast and special paint, Ampliroll, 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 oerlid

CASKETS: Extructed nubber seal with metal retainers

Heavy Duty Split Metal Rolling Lid



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



31

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