HOBBS OCD

NOV 20 2013

RECEIVED

13-707

OCD Hobbs

Form 3160-3
(March 2012)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM27508

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.
Wilder Federal 29 # 5H (39470)

2. Name of Operator ConocoPhillips Company (217817)

9. API Well No.
30-025-41509

3a. Address P.O. Box 51810
Midland, Tx 79710

3b. Phone No. *(include area code)*
432-688-6943

10. Field and Pool, or Exploratory
Bone Springs, UPPER SHALE (97838)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 724 FNL & 877 FEL (NENE) 29-26S-32E (A)
At proposed prod. zone 330 FSL & 350 FEL (SESE) 29-26s-32E (P)

11. Sec., T. R. M. or Blk. and Survey or Area
Section 29-26S-32E

14. Distance in miles and direction from nearest town or post office*
~15 miles south/east of Orla, Texas

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
330'	~~640~~ 1440 acres	160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
200'	13676 MD/8855 TVD	ES0082~~35~~
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3136	10/01/2013	30 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	Name *(Printed/Typed)*	Date
	Donna Williams	04/18/2013

Title
Sr. Regulatory Advisor

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/S/ STEPHEN J. CAFFEY		NOV 14 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)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOV 26 2013

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Wilder Federal 29 # 5H**
SURFACE LOCATION:	**724 FNL & 877 FEL (NENE) 29-26S-32E**
CASING POINT:	**562.3 FNL & 391 FEL (NENE) 29-26S-32E**
BHL:	**330 FSL & 350 FEL (SESE) 29-26S-32E**
FIELD NAME:	**Red Hills; Bone Spring**
POOL NAME:	**Bone Spring/Avalon**
COUNTY:	***Lea County, New Mexico***
	Federal Surface/Minerals NMNM27508

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.(TVD)

Quaternary	Surface	Water
Rustler	947	Water
Salado	1358	Salt
Delaware Top	4354	Oil/gas/water
Ramsey	4396	Oil/gas/water
Ford Shale	4453	Oil/gas/water
Olds	4462	Oil/gas/water
Cherry Canyon	5327	Oil/gas/water
Brushy Canyon	N/A	Oil/gas/water
Bone Spring	8198	Oil/gas/water
Bone Spring 1st Carbonate	8468	Oil/gas/water
Base Bone Spring 1st Carb	8523	Oil/gas/water
KOP	8287	Oil/gas/water
Avalon A Shale Top	8728	Oil/gas/water
Avalon B Zone Top	N/A	Oil/gas/water
Avalon C Shale Top	N/A	Oil/gas/water
Avalon Target	8883	Oil/gas/water

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary	Surface
Rustler	947'

All of the water bearing formations identified above will be protected by the setting of the 13 3/8" casing at 1000' and circulating of cement to surface

Castille (Salt) 2564
Delaware 4354 (oil/gas/water)
The prospective formation identified above will be protected by the setting of the 9 5/8" casing set at 4470 and circulating of cement to surface.
Bone Spring 8198-8883 (oil/gas/water)
The geologic tops identified above from the top of the Bone Spring/Avalon are part of the target formation

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

A 5000# system will be installed, used, maintained, and tested accordingly. After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. Pursuant to Onshore Oil and Gas Order No. 2, the BOP equipment for a 5M system or greater shall include lower Kelly cock valve with handle available, safety valves and subs to fit all drill string connections in use and inside BOP or float sub shall be available. All choke lines from the drilling spool forward shall meet the requirements of the Onshore Order 2 as specified. **See Attached BOPe Schematic**

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition. For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

Surface: 17 1/2" hole, 13 3/8" 54.5# J55 STC csg, set @ 1000'. **Drill out with 12 ¼" bit and perform shoe test to 12.5 ppg MWE.**
Burst: 4.39/Collapse: 1.88/Tension: 5.98/9.13
Intermediate 1: 12 1/4" hole, 9 5/8" 36# J55 LTC csg, set @ 4470
Burst: 2.43/Collapse: 1.4/Tension: 5.45/6.44
(This string of casing would not be subject to the production collapse load case of being pumped off to zero pressure on the inside by beam pump or ESP production pumping the fluid level down. The 9 5/8" casing would be isolated

Sec COA

from the beam pumping production collapse load case by the production casing that would be run. If loss of circulation occurs during the drilling phase while drilling below the 9 5/8" intermediate casing, we would expect the fluid level would fall no further than 2200' below the surface of ground before reaching hydrostatic balance with the pressure of the loss zone. Our anticipated maximum mud weight for drilling below the 9 5/8" intermediate casing is 9.3 ppg and our experience has been that we have not had severe losses with this mud weight in our previous wells in this area. The 9 5/8" casing will be filled with mud while running it by filling it at least once each 30 joints)

Intermediate 2: 8 3/4" hole, 7" 29# P110 BTC csg set @ 9227
Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.8

Production Liner (Uncemented): 6" hole, 4 ½" 11.6# P110 BTC liner set @ 8850-13676 MD Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.80 (Packers and Sleeves)

The plan is to set casing and drill open hole in a southern direction to a proposed bottomhole location of 330 FSL & 350 FEL (SESE) of Section 29-26S-32E

ConocoPhillips will utilize casing friendly hardbanded drill pipe in a manner that is consistent with current company policy and standards with respect to minimizing or mitigating internal casing wear. The responsibility to ensure all parties are acting according to their roles and responsibilities rest with the Company. Any damage or impacts from use of casing friendly hardbanded drill pipe rest with ConocoPhillips Company.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

13 3/8 casing: Lead w/560 sxs Class C cmt + HalCem-C (Yield 1.75 cft) Tail w/320 sxs Class C cmt + 1 lbm/sk EconoChem HRLTRRC (Yield 1.33 Cuft/sk). Circulated to surface based on 17 ½" hole with 100% excess

9 5/8" casing: Lead w/1260 sxs 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield 2.47 cft/sk), Tail w/250 sxs H + HalCem C (Yield 1.33 cft/sk) Circulated to surface based on 12 ¼" hole w/200% Excess.

7" casing: Lead w/310 sxs 50/50 Class C Poz (Tune Light System) + .2.5 ga/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield: 3.2 cft/sk) Tail w/187 sxs Class H + HalCem C (Yield 1.33 cft/sk). Circulate cement 500'into the 9 5/8" casing based on 8 ¾" hole w/200% excess.

4 ½" Liner: Uncemented

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

0-1000	Aquagel-Spud Mud	8.9	Wt/Gl	32-36 Vis.	NC
1000-4470	Brine	10	Wt/Gl	28-30 Vis.	5-8
4470-9227	Brine	9.3	Wt/Gl	28-30 Vis	5-8
9227-13676	Cut Brine	9.3	Wt/Gl	30-40 Vis	<=5

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None
b. Mud Logging: Two-Man – 1010-TD (Vertical & Horizontal Sections)
Logs to be run: GR/MWD

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The maximum anticipated bottom hole pressure is .45 psi/ft
No hydrogen sulfide is expected during drilling operations; however, the potential does exist for H2S. Please see attached H2S contingency plan to be used in the event of occurrence.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.
Anticipated construction date is October 1, 2013 with anticipated spud date of November 1, 2013. Construction of well pad and road will begin as soon as all Agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed directional/horizontal documents are attached.

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills				COUNTY/STATE		Lea County, NM
OWNERS	ConocoPhillips			LEASE			
WELL NO.	Wilder Federal 29 #5H		FNL	FSL	FEL	FWL	
LOCATION		Surface Location:	724			877	
		Bottom Hole Location:		330		350	SECTION 29
EST. T.D.	Leg #1 13,676' MD				GROUND ELEV.		3,136' (est)
						RKB	3,161' (est)

PROGNOSIS: Based on 3,169' KB(est)

Marker	TVD	S.S. Depth
Quaternary	Surface	
Rustler	947	+2,214
Delaware Top	4,351	-1,190
Ford Shale	4,450	-1,289
Bone Spring	8,195	-5,034
Bone Spring 1st Carbonate Top	8,465	-5,304
Bone Spring 1st Carbonate Base	8,520	-5,359
Avalon A Shale Top	8,725	-5,564
Avalon A Shale Base	8,920	-5,759

LOGS:

Type	Interval
Open Hole:	
GR-MWD	13676' 8,408'

DEVIATION:

Surf:	12° max., 1°/ every 900'
Int1/2: Pilot	3° max., 1°/ every 200'
Int 2: Curve	92° max., 1°/ every 30'
Prod.:	92° max., 1°/ every 200'

CORES: No core

SAMPLES:

Mudlogging:	Start	End	
Two-Man:	2500'	TD	Vertical and Horizontal sections

BOP:

HnP488 BOPE (With Rotating Head)

COP Category 3 Well Control Requirements
13-5/8"-5Mpsi Annular
13-3/8"-5Mpsi Blind Ram
13-3/8"-5Mpsi Cross / Choke & Kill Lines
13-3/8"-5M psi Pipe Ram
13-3/8"-5Mpsi Spacer Spool

Dip Rate: Slight Up Dip

Max. Anticipated BHP: 0.45 psi/ft

Surface Formation:

MUD:	Interval	Type	Max. MW	Vis	WL	Remarks
Surface:	0'-1000'	Aquagel - Spud Mud	8.9	32-36	NC	
Intermediate 1:	1000'-4470'	Brine	10.5	28-30	5-8	
Intermediate 2:	4470'-9227'	Cut Brine	9.3	30-39	<=4	
Production:	9227'-13676'	Cut Brine	9.7	30-40	<=5	

CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54.5	17-1/2	1,000'	To Surface	18hrs	
Intermediate 1:	9-5/8"	36	12-1/4"	4,470'	To Surface	18hrs	
Intermediate 2:	7"	29	8-3/4"	9,227'	500' into intermediate	18hrs	
Production Liner:	4-1/2"	11.6	6 1/8"	13,676'	Uncemented	0	Sleeves & Packers

DIRECTIONAL PLAN

	MD	TVD	AZ
Surface:	N/A	N/A	0
Vertical KOP :	8,408'	8,338'	179.14
End Build :	9,227'	8,859'	179.14
Tangent:	N/A	N/A	179.14
Turn:	N/A	N/A	179.14
TD:	13,676'	8,855'	179.14

Directional Company: DDC
Vertical Build Rate: 11.0 °/100'
Tan Leg Turn Rate: 0.0 °/100'

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

Prep By:	Katia Filina	Date:	6/12/13	Doc:	REV.1

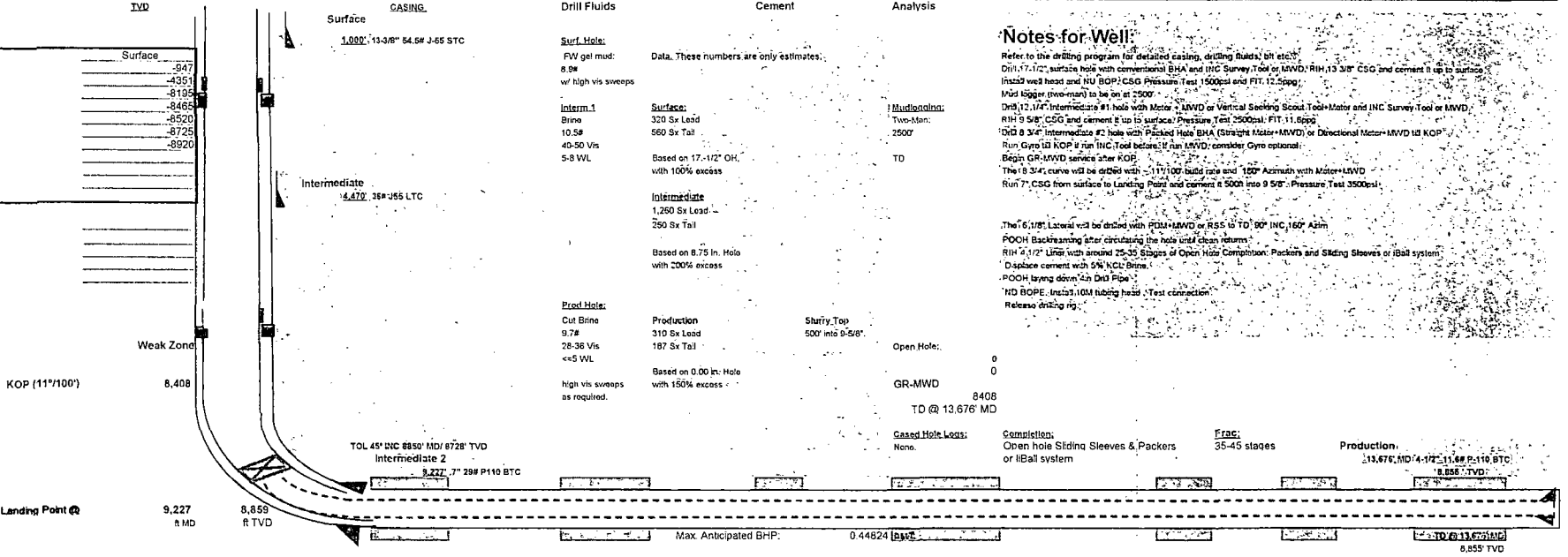
Wilder Federal 29 #5H

Surface Location:		Bottom Hole Location	
	0	330	0

Directional:

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP:	8408'	8336'	0	0	0	179.14
End Build:	9,227'	8,859'	0	0	0	179.1
Tangent:	N/A	N/A	0	0	0	179.1
Turn:	N/A	N/A	0	0	0	179.1
TD:	13,676'	8,855'	0	0	300	179.1

Formation	TVD
Quaternary	Surface
Rustler	-947
Delaware Top	-4351
Bone Spring	-8195
Bone Spring 1st Carbonate Top	-8465
Bone Spring 1st Carbonate Base	-8520
Avalon A Shale Top	-8725
Avalon A Shale Base	-8920



CASING

Drill Fluids

Surf. Hole:
FW gel mud:
8.9#
w/ high vis sweeps

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

Prod Hole:
Cut Brine
9.7#
28-36 Vis
<=5 WL

high vis sweeps as required.

Cement

Data. These numbers are only estimates.

Surface:
320 Sx Lead
560 Sx Tail

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

Intermediate
1,260 Sx Lead
250 Sx Tail

Based on 8.75 In. Hole with 200% excess

Production
310 Sx Lead
187 Sx Tail

Based on 0.00 In. Hole with 150% excess

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

Analysis

Mudlogging:
Two-Man:
2500'

TD

Open Hole:
0
0

GR-MWD
8408
TD @ 13,676' MD

Cased Hole Logs:
None.

Completion:
Open hole Sliding Sleeves & Packers or liBall system

Frac:
35-45 stages

Production
13,676' MD 4-1/2" 11.6# P-110 BTC
8,855' TVD

Max. Anticipated BHP: 0.44824 psi/ft

Notes for Well:

Refer to the drilling program for detailed casing, drilling fluids, bit etc.
Drill 17-1/2" surface hole with conventional BHA and INC Survey Tool or MWD. RIH 13 3/8" CSG and cement it up to surface.
Install well head and NU BOP. CSG Pressure Test 1500psi and FIT 12.5ppg.
Mud logger (two-man) to be on at 2500'.
Drill 12 1/4" Intermediate #1 hole with Motor + MWD or Vertical Seeking Scout Tool+Motor and INC Survey Tool or MWD.
RIH 9 5/8" CSG and cement it up to surface. Pressure Test 2500psi. FIT 11.6ppg.
Drill 8 3/4" Intermediate #2 hole with Packed Hole BHA (Straight Motor+MWD) or Directional Motor+MWD till KOP.
Run Gyro till KOP if run INC Tool before. If run MWD, consider Gyro optional.
Begin GR-MWD service after KOP.
The 8 3/4" curve will be drilled with ~11°/100' build rate and ~180° Azimuth with Motor+MWD.
Run 7" CSG from surface to Landing Point and cement it 500ft into 9 5/8". Pressure Test 3500psi.

The 6 1/8" Lateral will be drilled with RSS+MWD or RSS to TD, 90° INC, 180° Azim.
POOH Backreaming after circulating the hole until clean returns.
RIH 4 1/2" Liner with around 25-35 Stages of Open Hole Completion: Packers and Sliding Sleeves or iBall system.
Displace cement with 5% KCL Brine.
POOH laying down 4in Drill Pipe.
ND BOPE. Install 10M tubing head. Test connection.
Release drilling rig.

Vick Harvey Geologist	Date 6/12/2013	Katia Filina Drilling Engineer	Date 6/12/2013

Bonespring/Red Hills
ConocoPhillips
Wilder Federal 29 #5H

Surface Casing:	
Surface Casing Depth (Ft)	1,000
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	100%
Volume Tail (Sx)	320
Yield Tail (Cu. Ft./Sx)	1.33
Yield Lead (Cu. Ft./Sx)	1.75
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	35.3
Tail feet of cement	300
Calculated Total Volume (Cu. Ft.)	1,424
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	972
Calc. Lead Volume (Sx)	560

Intermediate #1 Casing (Lead):	
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	3,970'
Yield Lead (Cu. Ft./Sx)	2.47
Calculated Total Lead (Cu. Ft.)	3,109
Calc. Lead Volume (Sx)	1260

Intermediate #2 Casing (Lead):	**9.5ppg**
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	150%
cap 5-1/2" - 8-3/4" bls/ft	0.0268
cap 5-1/2 - 9-5/8" bls/ft	0.02823
Calculated fill: (500' into 9-5/8")	4,257'
Yield Lead (Cu. Ft./Sx)	3.2
Calculated Total Lead (Cu. Ft.)	960
Calc. Lead Volume (Sx)	310
	8,127
	3870

Intermediate #1 Casing (Tail):	
Intermediate Casing O.D. (In.)	9-5/8"
Production Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	200%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	500'
Yield Tail (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	17.0
Calc. Tail Volume (Cu. Ft.)	330
Required Tail Volume (Sx)	250

Intermediate #2 Casing (Tail):	**14.8ppg**
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	150%
cap 5-1/2" - 8-3/4" bls/ft	0.0268
cap 7 - 9-5/8" bls/ft	
Calculated fill:	1,100'
Yield Lead (Cu. Ft./Sx)	1.33
Calculated Total Tail (Cu. Ft.)	248
Required Tail Volume (Sx)	187

4050

ConocoPhillips MCBU

Permian Delaware Hz New Mexico
Wilder Federal AA 29 5H
Wilder Federal AA 29 5H

Original Borehole

Plan: Design #1

Standard Planning Report - Geographic

21 March, 2013

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 5H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3161.0usft (Original Well Elev)
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3161.0usft (Original Well Elev)
Site:	Wilder Federal AA 29 5H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 5H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Borehole		
Design:	Design #1		

Project	Permian Delaware Hz New Mexico, Mexico		
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	Wilder Federal AA 29 5H				
Site Position:		**Northing:**	371,136.20 usft	**Latitude:**	32.019
From:	Map	**Easting:**	699,091.50 usft	**Longitude:**	-103.691
Position Uncertainty:	0.0 usft	**Slot Radius:**	20 "	**Grid Convergence:**	0.34 °

Well	Wilder Federal AA 29 5H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	371,136.20 usft	**Latitude:**	32.019
	+E/-W	0.0 usft	**Easting:**	699,091.50 usft	**Longitude:**	-103.691
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,136.0 usft

Wellbore	Original Borehole				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2012	3/27/2013	7.50	59.87	48,282

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	172.65	

Plan Sections

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	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,550.0	10.00	35.00	1,547.5	35.7	25.0	2.00	2.00	0.00	35.00	
5,850.0	10.00	35.00	5,782.1	647.3	453.2	0.00	0.00	0.00	0.00	
6,350.0	0.00	0.00	6,279.6	683.0	478.2	2.00	-2.00	0.00	180.00	
8,408.5	0.00	0.00	8,338.1	683.0	478.2	0.00	0.00	0.00	0.00	
9,227.2	90.05	179.14	8,859.0	161.7	486.0	11.00	11.00	0.00	179.14	
13,675.6	90.05	179.14	8,855.0	-4,286.3	552.9	0.00	0.00	0.00	-39.57	Wilder 29 5H BHL

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 5H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3161.0usft (Original Well Elev)
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3161.0usft (Original Well Elev)
Site:	Wilder Federal AA 29 5H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 5H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Borehole		
Design:	Design #1		

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	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
200.0	0.00	0.00	200.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
400.0	0.00	0.00	400.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
600.0	0.00	0.00	600.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
800.0	0.00	0.00	800.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
1,000.0	0.00	0.00	1,000.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
13 3/8"									
1,050.0	0.00	0.00	1,050.0	0.0	0.0	371,136.20	699,091.50	32.019	-103.691
1,200.0	3.00	35.00	1,199.9	3.2	2.3	371,139.41	699,093.75	32.019	-103.691
1,400.0	7.00	35.00	1,399.1	17.5	12.2	371,153.69	699,103.74	32.019	-103.691
1,550.0	10.00	35.00	1,547.5	35.7	25.0	371,171.85	699,116.46	32.019	-103.691
1,600.0	10.00	35.00	1,596.7	42.8	29.9	371,178.96	699,121.44	32.019	-103.691
1,800.0	10.00	35.00	1,793.7	71.2	49.9	371,207.41	699,141.36	32.019	-103.691
2,000.0	10.00	35.00	1,990.6	99.7	69.8	371,235.86	699,161.28	32.019	-103.691
2,200.0	10.00	35.00	2,187.6	128.1	89.7	371,264.31	699,181.20	32.019	-103.691
2,400.0	10.00	35.00	2,384.6	156.6	109.6	371,292.76	699,201.12	32.019	-103.691
2,600.0	10.00	35.00	2,581.5	185.0	129.5	371,321.21	699,221.04	32.019	-103.691
2,800.0	10.00	35.00	2,778.5	213.5	149.5	371,349.66	699,240.96	32.019	-103.690
3,000.0	10.00	35.00	2,975.4	241.9	169.4	371,378.10	699,260.88	32.019	-103.690
3,200.0	10.00	35.00	3,172.4	270.4	189.3	371,406.55	699,280.80	32.019	-103.690
3,400.0	10.00	35.00	3,369.4	298.8	209.2	371,435.00	699,300.72	32.020	-103.690
3,600.0	10.00	35.00	3,566.3	327.3	229.1	371,463.45	699,320.64	32.020	-103.690
3,800.0	10.00	35.00	3,763.3	355.7	249.1	371,491.90	699,340.56	32.020	-103.690
4,000.0	10.00	35.00	3,960.2	384.2	269.0	371,520.35	699,360.48	32.020	-103.690
4,200.0	10.00	35.00	4,157.2	412.6	288.9	371,548.80	699,380.40	32.020	-103.690
4,400.0	10.00	35.00	4,354.2	441.0	308.8	371,577.25	699,400.32	32.020	-103.690
4,598.9	10.00	35.00	4,550.0	469.3	328.6	371,605.53	699,420.13	32.020	-103.690
9 5/8"									
4,600.0	10.00	35.00	4,551.1	469.5	328.7	371,605.69	699,420.24	32.020	-103.690
4,800.0	10.00	35.00	4,748.1	497.9	348.7	371,634.14	699,440.16	32.020	-103.690
5,000.0	10.00	35.00	4,945.1	526.4	368.6	371,662.59	699,460.08	32.020	-103.690
5,200.0	10.00	35.00	5,142.0	554.8	388.5	371,691.04	699,480.00	32.020	-103.690
5,400.0	10.00	35.00	5,339.0	583.3	408.4	371,719.49	699,499.92	32.020	-103.690
5,600.0	10.00	35.00	5,535.9	611.7	428.3	371,747.94	699,519.84	32.020	-103.690
5,800.0	10.00	35.00	5,732.9	640.2	448.3	371,776.39	699,539.76	32.020	-103.690
5,850.0	10.00	35.00	5,782.1	647.3	453.2	371,783.50	699,544.74	32.021	-103.689
6,000.0	7.00	35.00	5,930.5	665.5	466.0	371,801.66	699,557.46	32.021	-103.689
6,200.0	3.00	35.00	6,129.7	679.7	476.0	371,815.94	699,567.45	32.021	-103.689
6,350.0	0.00	0.00	6,279.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
6,400.0	0.00	0.00	6,329.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
6,600.0	0.00	0.00	6,529.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
6,800.0	0.00	0.00	6,729.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
7,000.0	0.00	0.00	6,929.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
7,200.0	0.00	0.00	7,129.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
7,400.0	0.00	0.00	7,329.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
7,600.0	0.00	0.00	7,529.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
7,800.0	0.00	0.00	7,729.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
8,000.0	0.00	0.00	7,929.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
8,200.0	0.00	0.00	8,129.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
8,400.0	0.00	0.00	8,329.6	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
8,408.5	0.00	0.00	8,338.1	683.0	478.2	371,819.15	699,569.70	32.021	-103.689
8,600.0	21.06	179.14	8,525.3	648.2	478.7	371,784.35	699,570.23	32.021	-103.689
8,800.0	43.06	179.14	8,693.8	542.6	480.3	371,678.84	699,571.81	32.020	-103.689
9,000.0	65.06	179.14	8,810.4	381.7	482.7	371,517.92	699,574.23	32.020	-103.689

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 5H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3161.0usft (Original Well Elev)
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3161.0usft (Original Well Elev)
Site:	Wilder Federal AA 29 5H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 5H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Borehole		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,200.0	87.06	179.14	8,858.3	188.8	485.6	371,325.02	699,577.12	32.019	-103.689
9,227.2	90.05	179.14	8,859.0	161.7	486.0	371,297.86	699,577.53	32.019	-103.689
9,400.0	90.05	179.14	8,858.8	-11.1	488.6	371,125.06	699,580.12	32.019	-103.689
9,600.0	90.05	179.14	8,858.7	-211.1	491.6	370,925.08	699,583.13	32.018	-103.689
9,800.0	90.05	179.14	8,858.5	-411.1	494.6	370,725.10	699,586.13	32.018	-103.689
10,000.0	90.05	179.14	8,858.3	-611.1	497.6	370,525.12	699,589.13	32.017	-103.689
10,200.0	90.05	179.14	8,858.1	-811.1	500.6	370,325.15	699,592.14	32.017	-103.689
10,400.0	90.05	179.14	8,858.0	-1,011.0	503.6	370,125.17	699,595.14	32.016	-103.689
10,600.0	90.05	179.14	8,857.8	-1,211.0	506.6	369,925.19	699,598.14	32.015	-103.689
10,800.0	90.05	179.14	8,857.6	-1,411.0	509.7	369,725.21	699,601.15	32.015	-103.689
11,000.0	90.05	179.14	8,857.4	-1,611.0	512.7	369,525.24	699,604.15	32.014	-103.689
11,200.0	90.05	179.14	8,857.3	-1,810.9	515.7	369,325.26	699,607.16	32.014	-103.689
11,400.0	90.05	179.14	8,857.1	-2,010.9	518.7	369,125.28	699,610.17	32.013	-103.689
11,600.0	90.05	179.14	8,856.9	-2,210.9	521.7	368,925.30	699,613.17	32.013	-103.689
11,800.0	90.05	179.14	8,856.7	-2,410.9	524.7	368,725.33	699,616.18	32.012	-103.689
12,000.0	90.05	179.14	8,856.5	-2,610.8	527.7	368,525.35	699,619.19	32.012	-103.689
12,200.0	90.05	179.14	8,856.4	-2,810.8	530.7	368,325.37	699,622.19	32.011	-103.689
12,400.0	90.05	179.14	8,856.2	-3,010.8	533.7	368,125.40	699,625.20	32.010	-103.689
12,600.0	90.05	179.14	8,856.0	-3,210.8	536.7	367,925.42	699,628.21	32.010	-103.689
12,800.0	90.05	179.14	8,855.8	-3,410.8	539.7	367,725.44	699,631.22	32.009	-103.689
13,000.0	90.05	179.14	8,855.6	-3,610.7	542.7	367,525.46	699,634.23	32.009	-103.689
13,200.0	90.05	179.14	8,855.4	-3,810.7	545.7	367,325.49	699,637.24	32.008	-103.689
13,400.0	90.05	179.14	8,855.3	-4,010.7	548.8	367,125.51	699,640.25	32.008	-103.689
13,600.0	90.05	179.14	8,855.1	-4,210.7	551.8	366,925.53	699,643.26	32.007	-103.689
13,675.6	90.05	179.14	8,855.0	-4,286.3	552.9	366,849.90	699,644.40	32.007	-103.689

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Wilder 29 5H BHL - plan hits target center - Point	0.00	0.00	8,855.0	-4,286.3	552.9	366,849.90	699,644.40	32.007	-103.689

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,000.0	1,000.0	13 3/8"	13-3/8	17-1/2
4,598.9	4,550.0	9 5/8"	9-5/8	12-1/4

Wilder Federal AA 29 5H Proposed Tops

GL 3,139 (est) | KB 25' (H&P 485) 3,164

Notes: No pilot hole will be drilled. This horizontal well will be drilled from N to S into the Avalon A Shale Zone. The surface loction will require that the well be drilled "3D", with the borehole drilled initially NE and then curved south in order to place the lateral portion of the bonehole within the Avalon A 160 acre spacing window. The well will be drilled virtually flat with a ~ 4,390' long lateral.

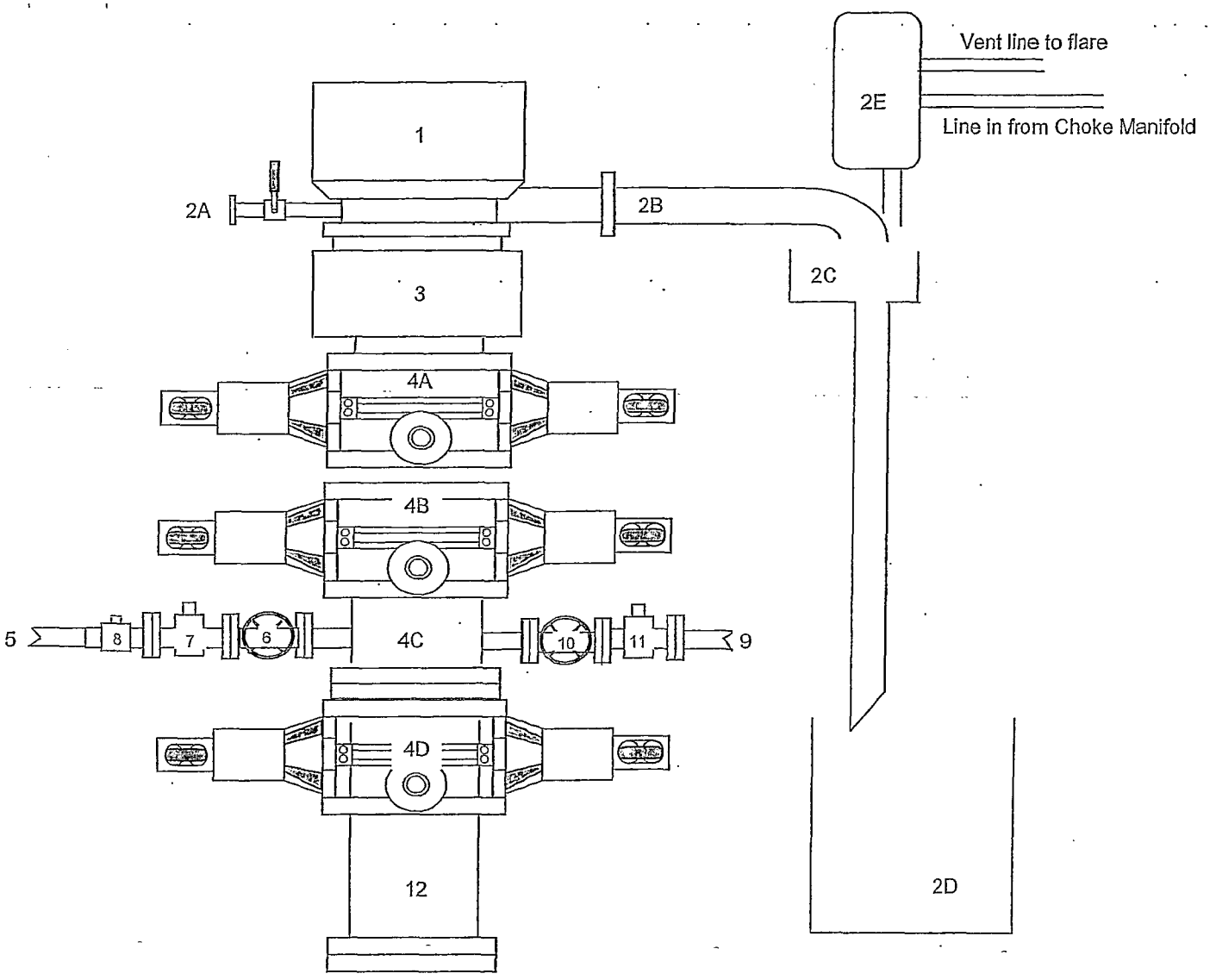
Surface Location	Sec 29	T26S	R32E	Lea Co. NM, Surface Location: 724' FNL & 849' FEL
Bottom Hole Location	Sec 29	T26S	R32E	Lea Co. NM, Terminus Location: 330' FSL & 350' FEL

Formation Name	Formation Top (TVD)	Subsea Depth	Gross Thickness	Gross Thickness	Gross Thickness	Comments
Quatemary	Surface					
Rustler	950	2,214				
Salado Top	1,380	1,784				
Castile Top	2,564	600				
Delaware Top	4,354	-1,190				
Ramsey	4,396	-1,232				
Ford Sh	4,453	-1,289				
Olds	4,462	-1,298				
Cherry Canyon Top	5,327	-2,163				
KOP (est)	8,287					
Bone Spring Top	8,198	-5,034				
Bone Spring 1st Carbonate Top	8,468	-5,304	55			
Bone Spring 1st Carbonate Base	8,523	-5,359				
Avalon A Shale Top	8,728	-5,564				
LANDING: Avalon A Shale Horizontal Upper Target Limit	8,837	-5,673	50			Not a formation top.
LANDING: Avalon A Shale Horizontal Target Center	8,862	-5,698				Not a formation top.
LANDING: Avalon A Shale Horizontal Lower Target Limit	8,887	-5,723				Not a formation top.
TERMINUS: Avalon A Shale Horizontal Upper Target Limit	8,833	-5,669	50		195	Not a formation top.
TERMINUS: Avalon A Shale Horizontal Target Center	8,858	-5,694				Not a formation top.
TERMINUS: Avalon A Shale Horizontal Lower Target Limit	8,883	-5,719				Not a formation top.
Avalon A Shale Base (Should not penetrate)	8,923	-5,759				

Proposed total MD of well ~ 13,465'.

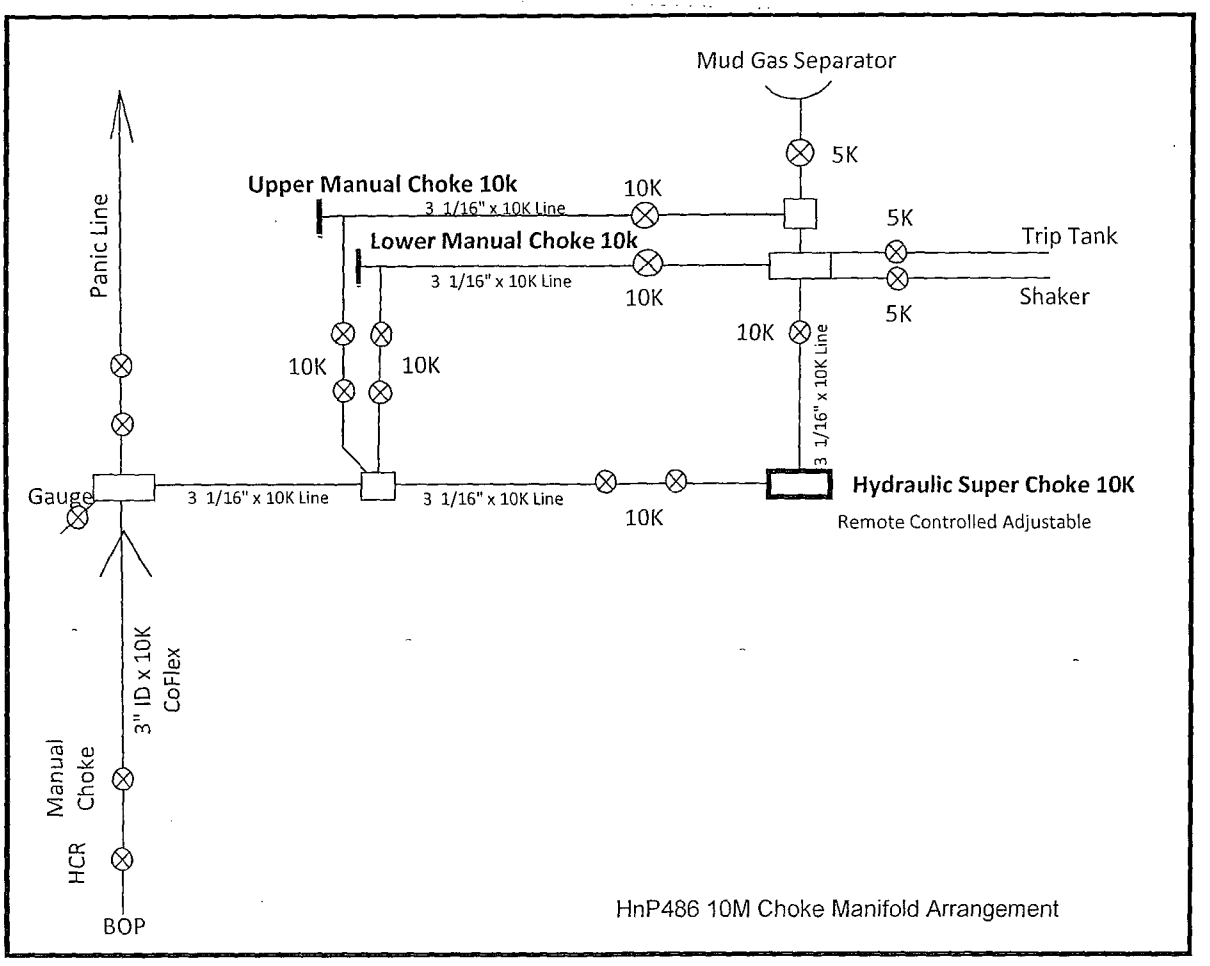
BLOWOUT PREVENTER ARRANGEMENT

5M System per Onshore Oil and Gas Order No. 2 utilizing 10M Rated Equipment



Item	Description
1	Rotating Head, 13-5/8"
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", Hydrill CK5M)
4A	Single Ram (13-3/8", 10M, equipped with pipe Rams)
4B	Single Ram (13-3/8", 10M, equipped with blind Rams)
4C	Drilling Spool (13-3/8" 10M)
4D	Single Ram (13-3/8", 10M, equipped with pipe Rams)
5	Kill Line (2-1/16", 10k psi WP)
6	Kill Line Valve, Inner (Cameron "FLS" 2-1/16"", 10k psi WP)
7	Kill Line Valve, Outer (Cameron "FLS" 2-1/16"", 10k psi WP)
8	Kill Line Check Valve (2-1/16, 10k psi WP)
9	Choke Line (4-1/16", 10k psi WP)
10	Choke Line Valve, Inner (4-1/16", 10k psi WP)
11	Choke Line Valve, Outer, (4-1/6" 100 psi WP HCR)
12	Drilling Spool Adapter (13-3/8", 10M)

Drawn by: Salvatore Amico, Drilling Engineer, ConocoPhillips Company, Oct 26th, 2012


Mud Gas Separator
5K
Upper Manual Choke 10k
3 1/16" x 10K Line
10K
5K
Trip Tank
Lower Manual Choke 10k
3 1/16" x 10K Line
10K
5K
Shaker
Panic Line
10K
10K
10K
3 1/16" x 10K Line
Gauge
3 1/16" x 10K Line
3 1/16" x 10K Line
10K
Hydraulic Super Choke 10K
Remote Controlled Adjustable
3" ID x 10K CoFlex
Manual Choke
HCR
BOP
HnP486 10M Choke Manifold Arrangement

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

Date: February 21, 2012

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 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 a fresh water pond.

   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:

   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)

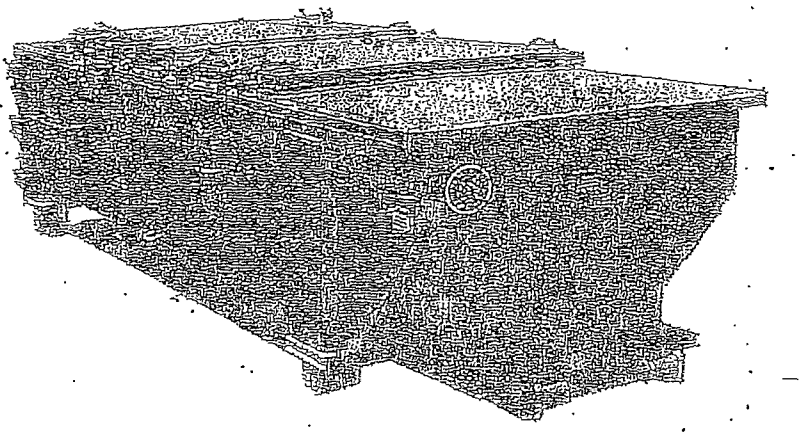
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

Luis Serrano Drilling Engineer
ConocoPhillips Company, 600 North Dairy Ashford, Room #2WL-13016, Houston, TX 77079-1175
Office: 832-486-2346

Heavy Duty Split Metal Rolling Lid

SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3"x4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top rail & inner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" 2-1/4" rails, 4 per set at each crossmember
WHEELS: 10" DIA x 9" long with grease fittings
ROOF: Two (2) independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except stub structural 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'-3" inside) 96" wide (86" inside) see drawing for height
OPTIONS: Steel floor plates and special paint
Amplirol belt and pin pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: 2 each 30" metal rolling lids spring loaded self latching
ROLLERS: 4 V-groove rollers with delrin bearings and grease fittings
DRAINAGE: (2) 50 x 82 openings with divider centered on centerline
LATCH: (2) independent ratchet binders with chains
GASKETS: Extruded rubber seal with metal retainers



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