HOBBS OCD

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13-708

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

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

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 # 6H (39470)
2. Name of Operator ConocoPhillips Company (217817)	9. API Well No. 30-025-41512
3a. Address P.O. Box 51810 Midland, Tx 79710	3b. Phone No. (include area code) 432-688-6943 JENNINGS
	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 330 FNL & 2066 FEL (NWNE) 29-26S-32E (B) At proposed prod. zone 330 FSL & 1707FEL (SWSE) 29-26S-32E (O)	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) 330'	16. No. of acres in lease ~~640~~ 1440 acres / 17. Spacing Unit dedicated to this well 160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50'	19. Proposed Depth 13638 MD/8841 TVD / 20. BLM/BIA Bond No. on file ES0085
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3141	22. Approximate date work will start* 10/01/2013 / 23. Estimated duration 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) Donna Williams	Date 04/18/2013
Title Sr. Regulatory Advisor		
Approved by (Signature) /S/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date 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)

KZ 11/22/13 Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOV 26 2013 PM

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Wilder Federal 29 # 6H**
SURFACE LOCATION:	**330 FNL & 2066 FEL (NWNE) 26-29S-32E**
CASING POINT:	**547.2 FNL & 1703.5 FEL (NWNE) 26-29S-32E**
BHL:	**330 FSL & 1707 FEL (SWSE) 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	958	Water
Salado	1393	Salt
Delaware Top	4299	Oil/gas/water
Ramsey	4341	Oil/gas/water
Ford Shale	4398	Oil/gas/water
Olds	4412	Oil/gas/water
Cherry Canyon	5246	Oil/gas/water
Brushy Canyon	N/A	Oil/gas/water
Bone Spring	8120	Oil/gas/water
Bone Spring 1st Carbonate	8428	Oil/gas/water
Base Bone Spring 1st Carb	8483	Oil/gas/water
KOP	8268	Oil/gas/water
Avalon A Shale Top	8703	Oil/gas/water
Avalon B Zone Top	N/A	Oil/gas/water
Avalon C Shale Top	N/A	Oil/gas/water
Avalon Target	8866	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.

SEE COA

Quanternary Surface
Rustler 958
All of the water bearing formations identified above will be protected by the setting of the 13 3/8" casing at ~~1010'~~ 1070' and circulating of cement to surface

Castille (Salt) 2545
Delaware 4299 (oil/gas/water)
The prospective formation identified above will be protected by the setting of the 9 5/8" casing set at 4420 and circulating of cement to surface.
Bone Spring 8120-8866 (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 @ 1070' ~~1010~~'. 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 @ 4420
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

See 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 @ 9175

Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.8

Production Liner (Uncemented): 6" hole, 4 ½" 11.6# P110 BTC liner set @ 8750-13638 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 & 1707 FEL (SWSE) 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/710 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/1250 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/320 sxs 50/50 Class C Poz (Tune Light System) + .2.5 ga/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield: 2.7 cft/sk) Tail w/167 sxs Class H + HalCem C (Yield 1.39 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:

See COA	0-1010 1070	Aquagel-Spud Mud	8.9	Wt/Gl	32-36 Vis. NC
	1010-4420	Brine	10	Wt/Gl	28-30 Vis. 5-8
	4420-9175	Brine	9.3	Wt/Gl	28-30 Vis 5-8
	9175-13638	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 See COA

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
See COA 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 #6H		FNL	FSL	FEL	FWL
LOCATION		Surface Location:	330		2066	
		Bottom Hole Location:		330	1707	SECITON 29
EST. T.D.	Leg #1 13,638' MD			GROUND ELEV.		3,141' (est)
					RKB	3,166' (est)

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

Marker	TVD	S.S. Depth
Quaternary	Surface	
Rustler	958	2,208
Delaware Top	4,299	-1,133
Ford Shale	4,398	-1,232
Bone Spring	8,120	-4,954
Bone Spring 1st Carbonate Top	8,428	-5,262
Bone Spring 1st Carbonate Base	8,483	-5,317
Avalon A Shale Top	8,703	-5,537
Avalon A Shale Base	8,898	-5,732

LOGS:

Type	Interval
Open Hole:	
GR-MWD	13638- 8,360'

DEVIATION:

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

CORES: No core.

SAMPLES:

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

BOP: COP Category 3 Well Control Requirements

HnP486 BOPE: (With Rotating Head)
- 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: 0.65 psi/ft

Surface Formation:

MUD:	Interval	Type	Max. MW	Vis	WL	Remarks
Surface:	0'-1010'	Aquagel - Spud Mud	8.9	32-36	NC	
Intermediate 1:	1010'-4420'	Brine	10.5	28-30	5-8	
Intermediate 2:	4420'-9175'	Cut Brine	9.3	30-39	<=4	
Production:	9175'-13638'	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	1,010'	To Surface	18hrs	
Intermediate 1:	9-5/8"	36	12-1/4"	4,420'	To Surface	18hrs	
Intermediate 2:	7"	29	8-3/4"	9,175'	500' into Intermediate	18hrs	
Production Liner:	4-1/2"	11.6	6 1/8"	13,638'	Uncemented	0	Sleeves & Packers

DIRECTIONAL PLAN

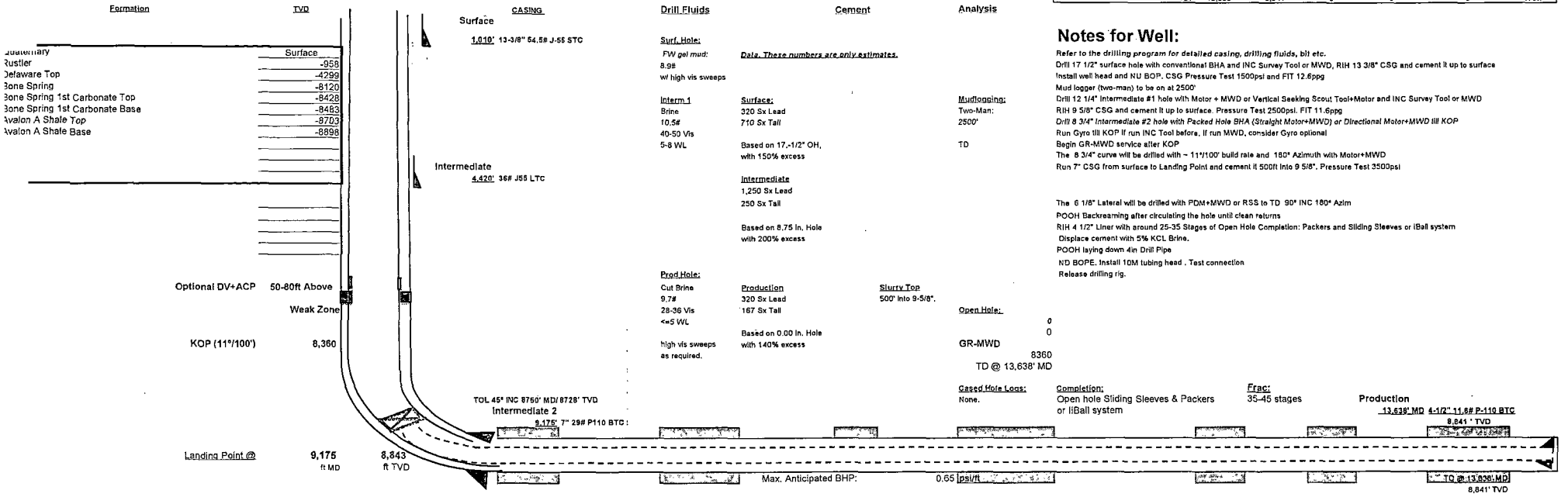
	MD	TVD	AZ	
Surface:	N/A	N/A	0	Directional Company: DDC
Vertical KOP :	8,360'	8,324'	179.7	Vertical Build Rate: 11.0 °/100'
End Build :	9,175'	8,843'	179.7	Tan Leg Turn Rate: 0.0 °/100'
Tangent:	N/A	N/A	179.7	
Turn:	N/A	N/A	179.7	
TD:	13,638'	8,841'	179.7	

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: 3/28/13 Doc: REV.0

der Federal 29 #6H

Surface Location: 0 2066 Bottom Hole Location 330 170'



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
710 Sx Tail

Based on 17.-1/2" OH,
with 150% excess

Intermediate
1,250 Sx Lead
250 Sx Tail

Based on 8.75 In. Hole
with 200% excess

Production
320 Sx Lead
167 Sx Tail

Based on 0.00 In. Hole
with 140% excess

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

Analysis

Mudlogging:
Two-Man:
2500'

TD

Open Hole:
0
0
GR-MWD
8360
TD @ 13,638' MD

Cased Hole Logs:
None.

Completion:
Open hole Sliding Sleeves & Packers
or liBall system

Frac:
35-45 stages

Production
13,638' MD 4-1/2" 11.6# P-110 BTC
8,841 ' TVD

TD @ 13,638' MD
8,841' TVD

Max. Anticipated BHP: 0.65 psi/ft

Directional:

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP :	8360	8324	0	0	0	179.7
End Build :	9,175'	8,843'	0	0	0	179.7
Tangent:	N/A	N/A	0	0	0	179.7
Turn:	N/A	N/A	0	0	0	179.7
TD:	13,638'	8,841'	0	0	0	179.7

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 12.6ppg
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 PDM+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 3/28/2013

Katia Filina
Drilling Engineer
Date 3/28/2013

Bonespring/Red Hills
ConocoPhillips
Wilder Federal 29 #6H

Surface Casing:	
Surface Casing Depth (Ft)	1,010
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	150%
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.)	1,685
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	1,233
Calc. Lead Volume (Sx)	710

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:	3,920'
Yield Lead (Cu. Ft./Sx)	2.47
Calculated Total Lead (Cu. Ft.)	3,069
Calc. Lead Volume (Sx)	1250

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 (Lead):	
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	140%
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")	4,155'
Yield Lead (Cu. Ft./Sx)	2.7
Calculated Total Lead (Cu. Ft.)	875
Calc. Lead Volume (Sx)	320
	8,075
	3920

Intermediate #2 Casing (Tail):	
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	140%
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)	1.39
Calculated Total Tail (Cu. Ft.)	232
Required Tail Volume (Sx)	167

4050

Wilder Federal AA 29 6H Proposed Tops

GL 3,143 (est) | KB 25' (H&P486) | 3,166

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 borehole 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: 330' FNL & 2,066' FEL
Bottom Hole Location	Sec 29	T26S	R32E	Lea Co. NM, Terminus Location: 330' FSL & 1650' FEL

Formation Name	Formation Top (TVD)	Subsea Depth	Gross Thickness	Gross Thickness	Gross Thickness	Comments
Quaternary	Surface					
Rustler	958	2,208				
Salado Top	1,393	1,773				
Castile Top	2,545	621				
Delaware Top	4,299	-1,133				
Ramsey	4,341	-1,175				
Ford Sh	4,398	-1,232				
Olds	4,412	-1,246				
Cherry Canyon Top	5,246	-2,080				
KOP (est)	**8,268**					
Bone Spring Top	8,120	-4,954				
Bone Spring 1st Carbonate Top	8,428	-5,262	55			
Bone Spring 1st Carbonate Base	8,483	-5,317				
Avalon A Shale Top	8,703	-5,537				
LANDING: Avalon A Shale Horizontal Upper Target Limit	**8,818**	**-5,652**	50		195	Not a formation top.
LANDING: Avalon A Shale Horizontal Target Center	**8,843**	**-5,677**				Not a formation top.
LANDING: Avalon A Shale Horizontal Lower Target Limit	**8,868**	**-5,702**				Not a formation top.
TERMINUS: Avalon A Shale Horizontal Upper Target Limit	**8,816**	**-5,650**	50			Not a formation top.
TERMINUS: Avalon A Shale Horizontal Target Center	**8,841**	**-5,675**				Not a formation top.
TERMINUS: Avalon A Shale Horizontal Lower Target Limit	**8,866**	**-5,700**				Not a formation top.
Avalon A Shale Base (Should not penetrate)	8,898	-5,732				

Proposed total MD of well ~13,450'.

ConocoPhillips MCBU

Permian Delaware Hz New Mexico
Wilder Federal AA 29 6H
Wilder Federal AA 29 6H

Original Borehole

Plan: Design #1

Standard Planning Report - Geographic

26 March, 2013

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 6H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3166.0usft
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3166.0usft
Site:	Wilder Federal AA 29 6H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 6H	**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 6H

Site Position:		**Northing:**	371,520.20 usft	**Latitude:**	32° 1' 11.337 N
From:	Map	**Easting:**	697,900.40 usft	**Longitude:**	103° 41' 41.289 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/8 "	**Grid Convergence:**	0.34 °

Well Wilder Federal AA 29 6H

Well Position	**+N/-S**	0.0 usft	**Northing:**	371,520.20 usft	**Latitude:**	32° 1' 11.337 N
	+E/-W	0.0 usft	**Easting:**	697,900.40 usft	**Longitude:**	103° 41' 41.289 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,141.0 usft

Wellbore Original Borehole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2/27/2013	7.51	59.87	48,291

Design Design #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	-2.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	-2.0	0.0	0.0	175.27	

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
-2.0	0.00	0.00	-2.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,048.0	0.00	0.00	1,048.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,348.0	9.00	50.00	1,346.8	15.1	18.0	3.00	3.00	0.00	50.00	
4,048.0	9.00	50.00	4,013.5	286.6	341.6	0.00	0.00	0.00	0.00	
4,348.0	0.00	0.00	4,312.3	301.7	359.6	3.00	-3.00	-16.67	-180.00	
8,360.0	0.00	0.00	8,324.3	301.7	359.6	0.00	0.00	0.00	0.00	
9,175.0	90.02	179.68	8,843.0	-217.2	362.5	11.05	11.05	0.00	179.68	
13,637.7	90.03	179.69	8,841.0	-4,679.8	386.9	0.00	0.00	0.00	49.47	Wilder 29 6H BHL

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 6H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3166.0usft
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3166.0usft
Site:	Wilder Federal AA 29 6H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 6H	**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
200.0	0.00	0.00	200.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
400.0	0.00	0.00	400.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
600.0	0.00	0.00	600.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
800.0	0.00	0.00	800.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
13 3/8"									
1,048.0	0.00	0.00	1,048.0	0.0	0.0	371,520.20	697,900.40	32° 1' 11.337 N	103° 41' 41.289 W
1,200.0	4.56	50.00	1,199.8	3.9	4.6	371,524.08	697,905.03	32° 1' 11.375 N	103° 41' 41.235 W
1,348.0	9.00	50.00	1,346.8	15.1	18.0	371,535.31	697,918.41	32° 1' 11.485 N	103° 41' 41.079 W
1,400.0	9.00	50.00	1,398.1	20.3	24.2	371,540.54	697,924.64	32° 1' 11.537 N	103° 41' 41.006 W
1,600.0	9.00	50.00	1,595.7	40.5	48.2	371,560.65	697,948.61	32° 1' 11.734 N	103° 41' 40.726 W
1,800.0	9.00	50.00	1,793.2	60.6	72.2	371,580.76	697,972.57	32° 1' 11.932 N	103° 41' 40.446 W
2,000.0	9.00	50.00	1,990.7	80.7	96.1	371,600.87	697,996.54	32° 1' 12.130 N	103° 41' 40.167 W
2,200.0	9.00	50.00	2,188.3	100.8	120.1	371,620.98	698,020.51	32° 1' 12.327 N	103° 41' 39.887 W
2,400.0	9.00	50.00	2,385.8	120.9	144.1	371,641.10	698,044.48	32° 1' 12.525 N	103° 41' 39.607 W
2,600.0	9.00	50.00	2,583.4	141.0	168.0	371,661.21	698,068.44	32° 1' 12.722 N	103° 41' 39.327 W
2,800.0	9.00	50.00	2,780.9	161.1	192.0	371,681.32	698,092.41	32° 1' 12.920 N	103° 41' 39.048 W
3,000.0	9.00	50.00	2,978.4	181.2	216.0	371,701.43	698,116.38	32° 1' 13.118 N	103° 41' 38.768 W
3,200.0	9.00	50.00	3,176.0	201.3	239.9	371,721.54	698,140.34	32° 1' 13.315 N	103° 41' 38.488 W
3,400.0	9.00	50.00	3,373.5	221.5	263.9	371,741.65	698,164.31	32° 1' 13.513 N	103° 41' 38.208 W
3,600.0	9.00	50.00	3,571.0	241.6	287.9	371,761.76	698,188.28	32° 1' 13.710 N	103° 41' 37.929 W
3,800.0	9.00	50.00	3,768.6	261.7	311.8	371,781.87	698,212.25	32° 1' 13.908 N	103° 41' 37.649 W
4,000.0	9.00	50.00	3,966.1	281.8	335.8	371,801.98	698,236.21	32° 1' 14.106 N	103° 41' 37.369 W
4,048.0	9.00	50.00	4,013.5	286.6	341.6	371,806.81	698,241.96	32° 1' 14.153 N	103° 41' 37.302 W
4,200.0	4.44	50.00	4,164.4	298.0	355.2	371,818.24	698,255.59	32° 1' 14.265 N	103° 41' 37.143 W
4,348.0	0.00	0.00	4,312.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
4,400.0	0.00	0.00	4,364.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
4,465.7	0.00	0.00	4,430.0	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
9 5/8"									
4,600.0	0.00	0.00	4,564.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
4,800.0	0.00	0.00	4,764.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
5,000.0	0.00	0.00	4,964.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
5,200.0	0.00	0.00	5,164.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
5,400.0	0.00	0.00	5,364.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
5,600.0	0.00	0.00	5,564.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
5,800.0	0.00	0.00	5,764.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
6,000.0	0.00	0.00	5,964.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
6,200.0	0.00	0.00	6,164.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
6,400.0	0.00	0.00	6,364.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
6,600.0	0.00	0.00	6,564.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
6,800.0	0.00	0.00	6,764.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
7,000.0	0.00	0.00	6,964.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
7,200.0	0.00	0.00	7,164.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
7,400.0	0.00	0.00	7,364.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
7,600.0	0.00	0.00	7,564.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
7,800.0	0.00	0.00	7,764.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
8,000.0	0.00	0.00	7,964.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
8,200.0	0.00	0.00	8,164.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
8,360.0	0.00	0.00	8,324.3	301.7	359.6	371,821.92	698,259.98	32° 1' 14.302 N	103° 41' 37.092 W
8,400.0	4.42	179.68	8,364.3	300.2	359.6	371,820.38	698,259.99	32° 1' 14.286 N	103° 41' 37.092 W
8,600.0	26.51	179.68	8,555.8	247.2	359.9	371,767.38	698,260.28	32° 1' 13.762 N	103° 41' 37.092 W
8,800.0	48.60	179.68	8,713.4	126.0	360.6	371,646.23	698,260.96	32° 1' 12.563 N	103° 41' 37.092 W
9,000.0	70.69	179.68	8,813.8	-45.5	361.5	371,474.71	698,261.92	32° 1' 10.866 N	103° 41' 37.093 W

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal AA 29 6H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3166.0usft
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3166.0usft
Site:	Wilder Federal AA 29 6H	**North Reference:**	Grid
Well:	Wilder Federal AA 29 6H	**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
9,175.0	90.02	179.68	8,843.0	-217.2	362.5	371,303.01	698,262.88	32° 1' 9.166 N	103° 41' 37.094 W
7"									
9,200.0	90.02	179.68	8,843.0	-242.2	362.6	371,278.01	698,263.01	32° 1' 8.919 N	103° 41' 37.094 W
9,400.0	90.02	179.68	8,842.9	-442.2	363.7	371,078.01	698,264.13	32° 1' 6.940 N	103° 41' 37.095 W
9,600.0	90.02	179.68	8,842.8	-642.2	364.8	370,878.01	698,265.24	32° 1' 4.960 N	103° 41' 37.095 W
9,800.0	90.02	179.68	8,842.8	-842.2	366.0	370,678.02	698,266.36	32° 1' 2.981 N	103° 41' 37.096 W
10,000.0	90.02	179.68	8,842.7	-1,042.2	367.1	370,478.02	698,267.47	32° 1' 1.002 N	103° 41' 37.097 W
10,200.0	90.02	179.68	8,842.6	-1,242.2	368.2	370,278.02	698,268.57	32° 0' 59.023 N	103° 41' 37.098 W
10,400.0	90.02	179.68	8,842.5	-1,442.2	369.3	370,078.02	698,269.68	32° 0' 57.043 N	103° 41' 37.099 W
10,600.0	90.02	179.68	8,842.5	-1,642.2	370.4	369,878.03	698,270.78	32° 0' 55.064 N	103° 41' 37.100 W
10,800.0	90.02	179.68	8,842.4	-1,842.2	371.5	369,678.03	698,271.88	32° 0' 53.085 N	103° 41' 37.101 W
11,000.0	90.02	179.69	8,842.3	-2,042.2	372.6	369,478.03	698,272.98	32° 0' 51.106 N	103° 41' 37.102 W
11,200.0	90.03	179.69	8,842.2	-2,242.2	373.7	369,278.04	698,274.08	32° 0' 49.126 N	103° 41' 37.103 W
11,400.0	90.03	179.69	8,842.1	-2,442.2	374.8	369,078.04	698,275.18	32° 0' 47.147 N	103° 41' 37.104 W
11,600.0	90.03	179.69	8,842.0	-2,642.2	375.9	368,878.04	698,276.27	32° 0' 45.168 N	103° 41' 37.105 W
11,800.0	90.03	179.69	8,841.9	-2,842.2	377.0	368,678.05	698,277.36	32° 0' 43.189 N	103° 41' 37.106 W
12,000.0	90.03	179.69	8,841.8	-3,042.1	378.1	368,478.05	698,278.45	32° 0' 41.209 N	103° 41' 37.107 W
12,200.0	90.03	179.69	8,841.7	-3,242.1	379.1	368,278.05	698,279.54	32° 0' 39.230 N	103° 41' 37.108 W
12,400.0	90.03	179.69	8,841.6	-3,442.1	380.2	368,078.05	698,280.62	32° 0' 37.251 N	103° 41' 37.109 W
12,600.0	90.03	179.69	8,841.5	-3,642.1	381.3	367,878.06	698,281.71	32° 0' 35.271 N	103° 41' 37.110 W
12,800.0	90.03	179.69	8,841.4	-3,842.1	382.4	367,678.06	698,282.79	32° 0' 33.292 N	103° 41' 37.112 W
13,000.0	90.03	179.69	8,841.3	-4,042.1	383.5	367,478.06	698,283.87	32° 0' 31.313 N	103° 41' 37.113 W
13,200.0	90.03	179.69	8,841.2	-4,242.1	384.5	367,278.07	698,284.95	32° 0' 29.334 N	103° 41' 37.114 W
13,400.0	90.03	179.69	8,841.1	-4,442.1	385.6	367,078.07	698,286.02	32° 0' 27.354 N	103° 41' 37.115 W
13,600.0	90.03	179.69	8,841.0	-4,642.1	386.7	366,878.07	698,287.09	32° 0' 25.375 N	103° 41' 37.117 W
13,637.7	90.03	179.69	8,841.0	-4,679.8	386.9	366,840.40	698,287.30	32° 0' 25.002 N	103° 41' 37.117 W

Design Targets

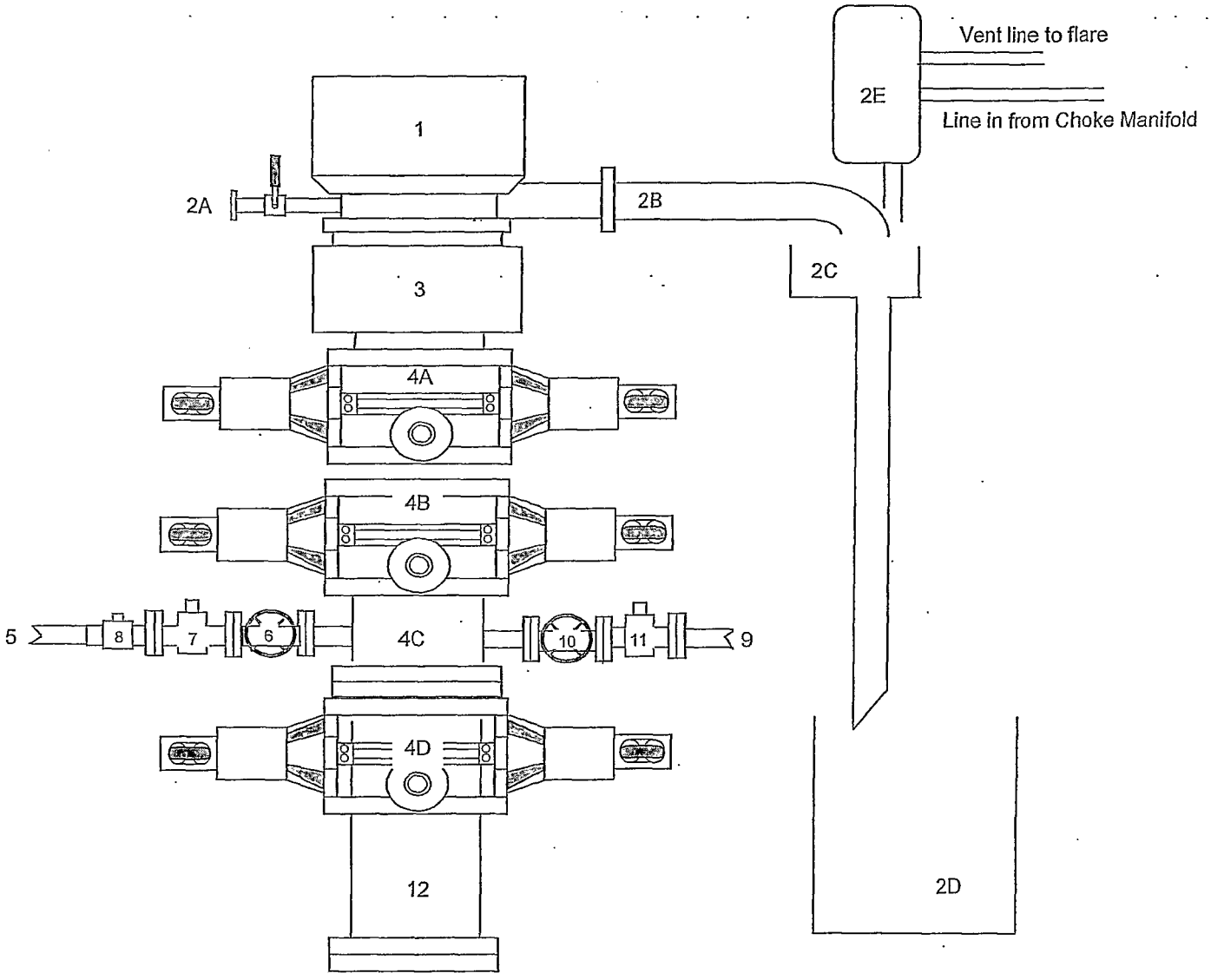
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Wilder 29 6H BHL - plan hits target center - Point	0.00	0.00	8,841.0	-4,679.8	386.9	366,840.40	698,287.30	32° 0' 25.002 N	103° 41' 37.117 W

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
4,465.7	4,430.0	9 5/8"	9-5/8	12-1/4
9,175.0	8,843.0	7"	7	8-3/4

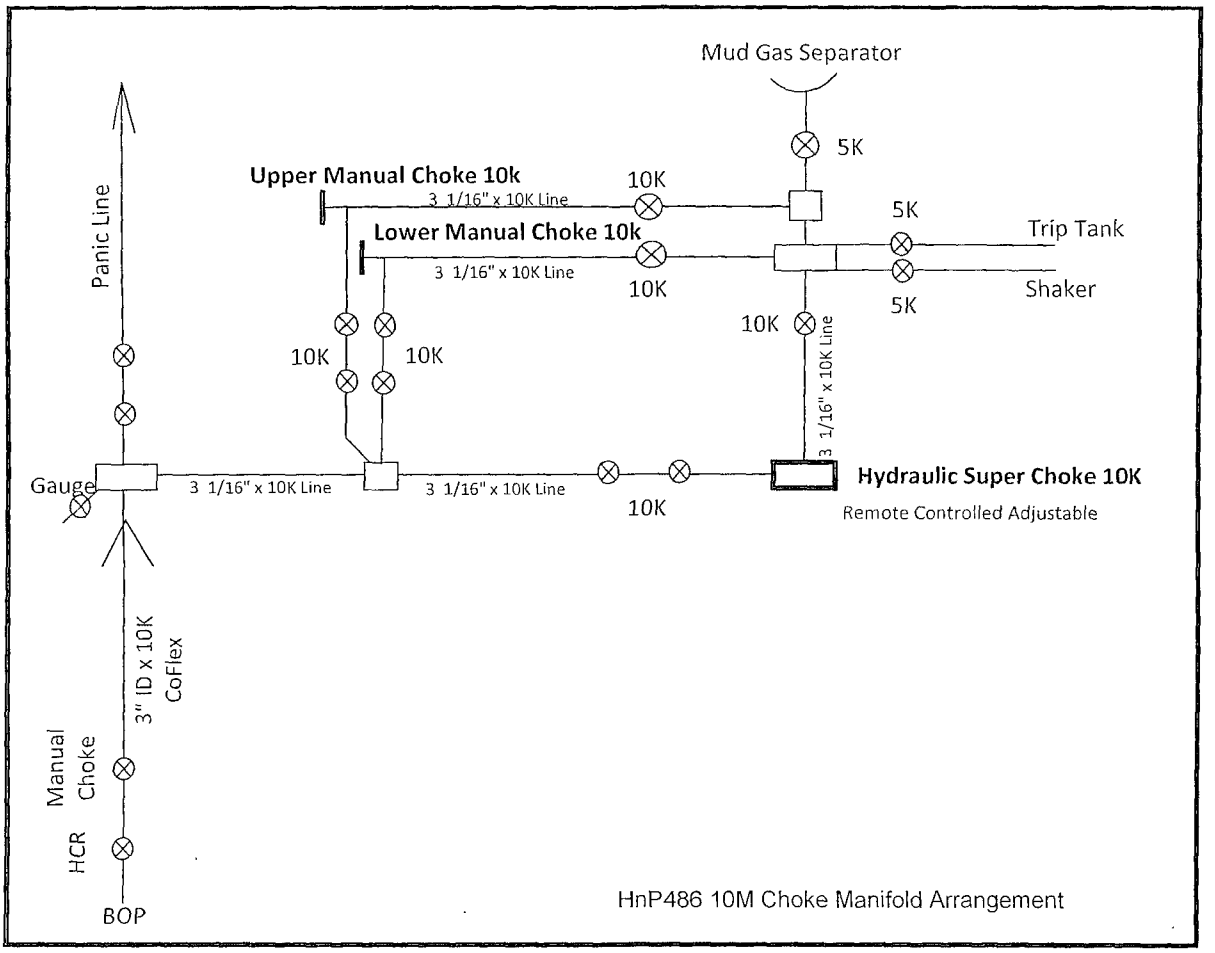
BLOWOUT PREVENTER ARRANGEMENT

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)

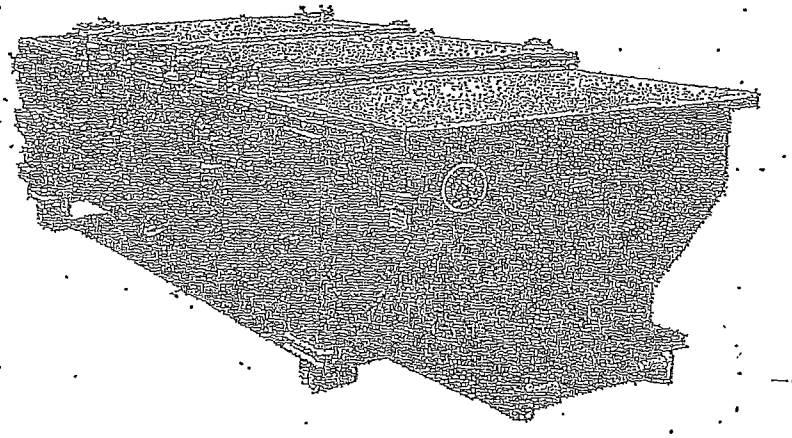
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

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

SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSSMEMBER: 8"x4.1 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 8" x 1/4" tails, gusset at each crossmember
WHEELS: 10 DIA x 8 long with grease fittings
DOOR LATCH: 3 independent latchers with chains - vertical secondary latch
CASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except stitch 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 (inside), see drawing for height
OPTIONS: Steel grit blast and special paint
Amplicoll Seal and Disc pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: (2) 98" x 80" metal rolling lids spring loaded self raising
ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings
DRAINAGE: (2) 50" x 82" openings with 3" divider centered on container
LATCH (2) independent latchers and chains per lid
GASKETS: Extruded rubber 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