13-705

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

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 # 3H (39470)

2. Name of Operator ConocoPhillips Company (217817)

9. API Well No.
30-025-41510

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 330 FNL & 1875 FWL (NENW) 29-26S-32E (C)
At proposed prod. zone 330 FSL & 1875 FWL (SESW) 29-26S-32E (N)

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~~ acres
1440

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.
1000'

19. Proposed Depth
13957 MD/9205 TVD

20. BLM/BIA Bond No. on file
ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3160

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)

Carlsbad Controlled Water Basin

KZ 11/22/13

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

PM

NOV 26 2013

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Wilder Federal 29 # 3H**
SURFACE LOCATION:	**330 FNL & 1875 FWL (NENW) 29-26S-32E**
CASING POINT:	**600.8 FNL & 1877 FWL (NENW) 29-26S-32E**
BHL:	**330 FSL & 1875 FWL (SESW) 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	975	Water
Salado	2583	Salt
Delaware Top	4362	Oil/gas/water
Ramsey	4402	Oil/gas/water
Ford Shale	4461	Oil/gas/water
Olds	4469	Oil/gas/water
Cherry Canyon	5325	Oil/gas/water
Brushy Canyon	N/A	Oil/gas/water
Bone Spring	8175	Oil/gas/water
Bone Spring 1st Carbonate	8417	Oil/gas/water
Base Bone Spring 1st Carb	8469	Oil/gas/water
KOP	8663	Oil/gas/water
Avalon A Shale Top	8886	Oil/gas/water
Avalon B Zone Top	9065	Oil/gas/water
Avalon C Shale Top	9065	Oil/gas/water
Avalon Target	9202	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	975'

All of the water bearing formations identified above will be protected by the setting of the 13 3/8" casing at 1030' and circulating of cement to surface

Castille (Salt) 2583
Delaware 4362 (oil/gas/water)
The prospective formation identified above will be protected by the setting of the 9 5/8" casing set at 4480' and circulating of cement to surface.
Bone Spring 8175-9202 (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.

See COA

NEW CASING:

1130

Surface: 17 1/2" hole, 13 3/8" 54.5# J55 STC csg, set @ ~~1030~~'. 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 @ 4480
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 @ 9543
Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.8
Production Liner (Uncemented): 6" hole, 4 ½" 11.6# P110 BTC liner set @ 9100-13957 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 & 1875 FWL (SESW) 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/580 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/1270 sxs 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield 2.47 cft/sk), Tail w/280 sxs H + HalCem C (Yield 1.33 cft/sk) Circulated to surface based on 12 ¼" hole w/200% Excess.

7" casing: Lead w/330 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/175 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:

0-1030	Aquagel-Spud Mud	8.9	Wt/Gl	32-36 Vis.	NC
1030-4480	Brine	10	Wt/Gl	28-30 Vis.	5-8
4480-9543	Brine	9.3	Wt/Gl	28-30 Vis	5-8
9543-13957	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 – 1030-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

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			COUNTY/STATE		Lea County, NM
OWNERS	ConocoPhillips			LEASE		
WELL NO.	Wilder Federal 29 #3H	FNL	FSL	FEL	FWL	
LOCATION	Surface Location:	330			1875	
	Bottom Hole Location:		330		1875	
EST. T.D.	Leg #1 13,957' MD			GROUND ELEV.		3,160' (est)
					RKB	3185

PROGNOSIS: Based on 3,160' KB(est)

Marker	S.S. Depth	TVD	
Quaternary	Surface		
Rustler	975	2,210	1,025
Castile	2,583	602	
Delaware Top	4,362	-1,177	
Ramsey	4,402	-1,217	
Ford Shale	4,461	-1,276	
Olds	4,469	-1,284	
Cherry Canyon Lower Top	5,325	-2,140	
Bone Spring Top	8,175	-4,990	
Bone Spring 1st Carbonate Top	8,417	-5,232	
Bone Spring 1st Carbonate Base	8,469	-5,284	
KOP (est)	8,663	-5,478	
Avalon A Shale Top	8,886	-5,701	
Avalon A Shale Base	8,886	-5,701	
Avalon B Zone Top	9,065	-5,880	
Avalon B Zone Base	9,065	-5,880	
Avalon C Shale Top	9,065	-5,880	
LANDING: Avalon C Shale Horizontal Upper Target Limit	9,177	-5,992	
LANDING: Avalon C Shale Horizontal Target Center	**9,202**	**-6,017**	
LANDING: Avalon C Shale Horizontal Lower Target Limit	9,227	-6,042	
TERMINUS: Avalon C Shale Horizontal Upper Target Limit	9,180	-5,995	
TERMINUS: Avalon C Shale Horizontal Target Center	**9,205**	**-6,020**	
TERMINUS: Avalon C Shale Horizontal Lower Target Limit	9,230	-6,045	
Avalon C Shale Base (Should not penetrate)	9,290	-6,105	

LOGS:

Type	Interval
Open Hole:	
GR-MWD	8500' to TD

DEVIATION:

Surf:	3° max., svy every 500'
Int1/2:	3° max., svy every 90'
Prod:	svy every 200'

DST'S:

CORES: No core.

SAMPLES:

Mudlogging:	Start	End	
Two-Man:	1,030'	TD	Vertical and Horizontal sections

BOP: COP Category 3 Well Control Requirements

HnP 488 BOPE:	13-5/8"-5Mpsi Annular
(With Rotating Head)	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 Down Dip

Max. Anticipated BHP: 0.45 psi/ft

Surface Formation:

MUD:	Interval	Type	Max. MW	Vis	WL	Remarks
Surface:	0'-1030'	Aquagel - Spud Mud	9.3	32-36	NC	
Intermediate 1:	1030'-4480'	Brine	10.5	28-30	5-8	
Intermediate 2:	4480'-9543'	Cut Brine	9.5	30-39	<=4	
Production:	9543'-13957'	Cut Brine	9.8	30-40	<=5	

CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54.5	17-1/2	1,030'	To Surface	18hrs	
Intermediate 1:	9-5/8"	36	12-1/4"	4,480'	To Surface	18hrs	
Intermediate 2:	7"	29	8-3/4"	9,543'	500' into intermediate	18hrs	
Production Liner:	4-1/2"	11.6	6 1/8"	13,957'	Uncemented	0	27-32 Stages Sleeves & Packers

DIRECTIONAL PLAN

	MD	TVD	AZ
Surface:	N/A	N/A	180
Vertical KOP :	8,645'	8,665'	180.0
End Build/ 7"Casing (90° curve):	9,543'	9,202'	180.0
Tangent:	N/A	N/A	180.0
Turn:	N/A	N/A	180.0
TD:	13,957'	9,205'	180.0

Directional Company: DDC
Vertical Build Rate: 10.0 °/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: 2/26/13 Doc: REV.1

Wilder Federal 29 #3H

Surface Location:			Bottom Hole Location		
	330	1875	330	1875	

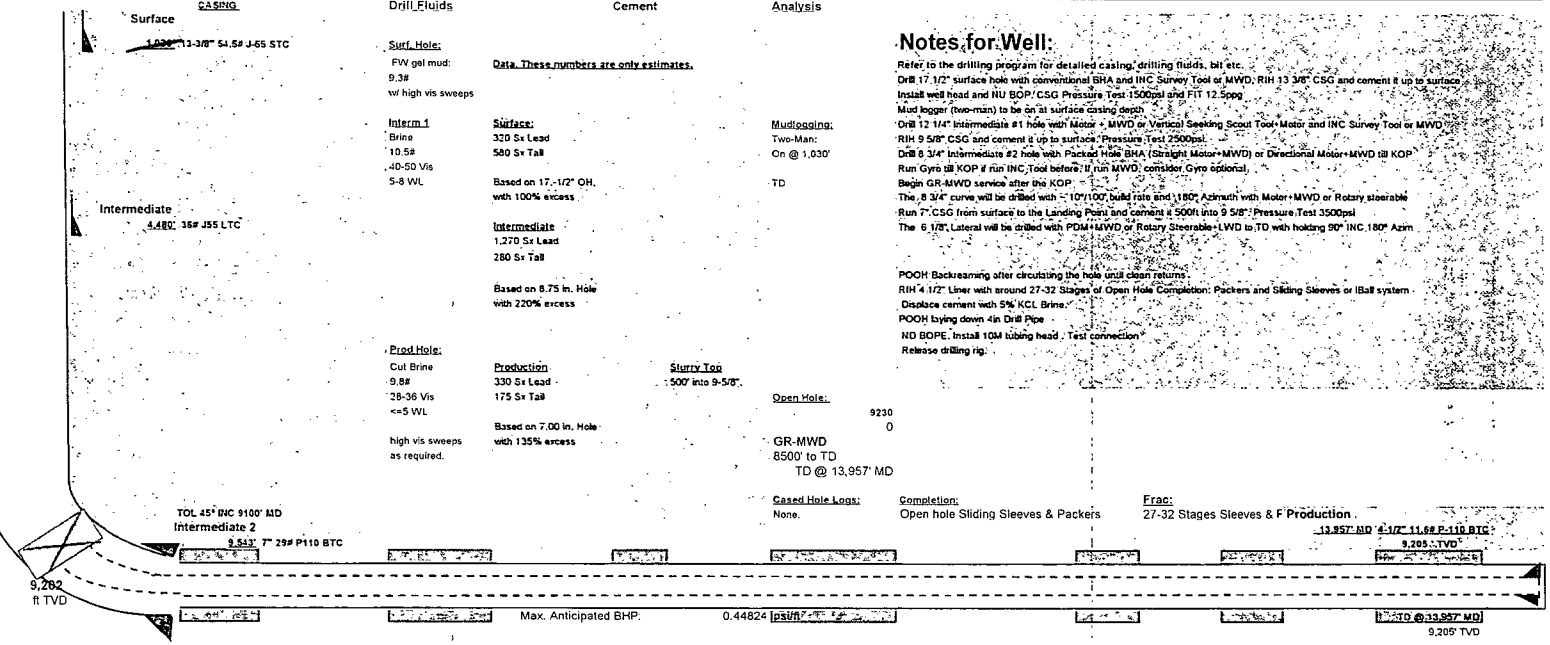
Directional:

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP:	8645	8565	0	0	0	180
End Build/ 7"Casing (90° curve):	9,543'	9,202'	0	0	0	180.0
Tangent:	N/A	N/A	0	0	0	180.0
Turn:	N/A	N/A	0	0	0	180.0
TD:	13,957'	9,205'	0	0	0	180.0

Formation	TVD
	SS TVD
Quaternary	2,210
Rustler	602
Castile	-1,177
Delaware Top	-1,217
Ramsey	-1,276
Ford Shale	-1,284
Olds	-2,140
Cherry Canyon Lower Top	-4,990
Bone Spring Top	-5,232
Bone Spring 1st Carbonate Top	-5,284
Bone Spring 1st Carbonate Base	-5,478
KOP (est)	-5,701
Avalon A Shale Top	-5,701
Avalon A Shale Base	-5,880
Avalon B Zone Top	-5,880
Avalon B Zone Base	-5,880
Avalon C Shale Top	

KOP (10°/100') 8,645

Landing Point @ 9,543 ft MD 9,202 ft TVD



CASING	Drill Fluids	Cement	Analysis
	Surf. Hole:		
	FW gel mud: 9.3# w/ high vis sweeps	Data. These numbers are only estimates.	
	Interm 1	Surface:	Mudlogging:
	Brine	320 Sx Lead	Two-Man:
	10.5#	580 Sx Tail	On @ 1,030'
	40-50 Vis		
	5-8 WL	Based on 17-1/2" OH, with 100% excess	TD
		Intermediate	
		1,270 Sx Lead	
		280 Sx Tail	
		Based on 8.75 in. Hole with 220% excess	
	Prod Hole:		
	Cut Brine	Production	Slurry Top
	9.8#	330 Sx Lead	500' into 9-5/8".
	28-36 Vis	175 Sx Tail	Open Hole:
	<=5 WL		9230
		Based on 7.00 in. Hole with 135% excess	0
	high vis sweeps as required.		GR-MWD 8500' to TD TD @ 13,957' MD
			Cased Hole Logs: None.

Completion: Open hole Sliding Sleeves & Packers

Frac: 27-32 Stages Sleeves & P Production . 13,957' MD 4-1/2" 11.6# P-110 BTC 9,205' 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 surface casing depth
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
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 the KOP.
The 8 3/4" curve will be drilled with ~10°/100' build rate and 180° Azimuth with Motor+MWD or Rotary steerable
Run 7" CSG from surface to the 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 Rotary Steerable+LWD to TD with holding 90° INC 180° Azm

POOH Backreaming after circulating the hole until clean returns.
RIH 4 1/2" Liner with around 27-32 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 2/26/2013

Katia Filina
Drilling Engineer
Date 2/26/2013

Bonespring
ConocoPhillips
Wilder Federal 29 #3H

0

Surface Casing:	13.5ppg
Surface Casing Depth (Ft)	1,030
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.)	1,466
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	1,014
Calc. Lead Volume (Sx)	580
	14.8ppg

Intermediate #1 Casing (Lead):	**11.9ppg**
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.921
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	3,980'
Yield Lead (Cu. Ft./Sx)	2.47
Calculated Total Lead (Cu. Ft.)	3,116
Calc. Lead Volume (Sx)	1270

Intermediate #2 Casing (Lead):	**10.5ppg**
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	135%
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")	4,363'
Yield Lead (Cu. Ft./Sx)	2.7
Calculated Total Lead (Cu. Ft.)	886
Calc. Lead Volume (Sx)	330
	8,343
	3980

Intermediate #1 Casing (Tail):	**14.8ppg**
Intermediate Casing O.D. (In.)	9-5/8"
Production Casing ID (In)	8.921
Hole O.D. (In)	12.25
Excess (%)	220%
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)	17.4
Calc. Tail Volume (Cu. Ft.)	362
Required Tail Volume (Sx)	280

Intermediate #2 Casing (Tail):	**14ppg**
Intermediate Casing O.D. (In.)	7.000
Intermediate Casing ID (In)	6.184
Hole O.D. (In)	8.75
Excess (%)	135%
cap 5-1/2" - 8-3/4" bls/ft	0.0268
cap 7 - 9-5/8" bls/ft	
Calculated fill:	1,200'
Yield Lead (Cu. Ft./Sx)	1.39
Calculated Total Tail (Cu. Ft.)	244
Required Tail Volume (Sx)	175

4050

Wilder Federal 29 3H Proposed Tops

GL 3,143' (via survey plat)	KB 25' H&P 486	3,185

Notes: No pilot hole will be drilled. This horizontal well will be drilled from N to S into the Avalon C Shale Zone. The well will be drilled virtually flat with a ~ 4,300' long lateral.. The well will also be drilled with negative section to maximize the lateral length of the well.

Surface Location	Sec 29	T26S	R32E	Lea Co. NM, Surface Location: 330' FNL & 1,875' FEL
Bottom Hole Location	Sec 29	T26S	R32E	Lea Co. NM, Terminus Location: 330' FSL & 1,875' FEL

Formation Name	Formation Top (TVD)	Subsea Depth	Gross Thickness	Gross Thickness	Gross Thickness	Comments
Quaternary	Surface					
Rustler	975	2,210				
Castile	2,583	602				
Delaware Top	4,362	-1,177				
Ramsey	4,402	-1,217				
Ford Sh	4,461	-1,276				
Olds	4,469	-1,284				
Cherry Canyon Top	5,325	-2,140				
Bone Spring Top	8,175	-4,990				
Bone Spring 1st Carbonate Top	8,417	-5,232	52			
Bone Spring 1st Carbonate Base	8,469	-5,284				
KOP (est)	**8,502**	**-5,317**				Not a formation top.
Avalon A Shale Top	8,663	-5,478	223			
Avalon A Shale Base	8,886	-5,701				
Avalon B Zone Top	8,886	-5,701	179			
Avalon B Zone Base	9,065	-5,880				
Avalon C Shale Top	9,065	-5,880				
LANDING: Avalon C Shale Horizontal Upper Target Limit	9,177	-5,992	50	225	627	Not a formation top.
LANDING: Avalon C Shale Horizontal Target Center	**9,202**	**-6,017**				Not a formation top.
LANDING: Avalon C Shale Horizontal Lower Target Limit	**9,227**	**-6,042**				Not a formation top.
TERMINUS: Avalon C Shale Horizontal Upper Target Limit	9,180	-5,995	50			Not a formation top.
TERMINUS: Avalon C Shale Horizontal Target Center	**9,205**	**-6,020**				Not a formation top.
TERMINUS: Avalon C Shale Horizontal Lower Target Limit	**9,230**	**-6,045**				Not a formation top.
Avalon C Shale Base (Should not penetrate)	9,290	-6,105				

Proposed total MD of well 13,675' (est).

ConocoPhillips MCBU

Permian Delaware Hz New Mexico
Wilder Federal 29 3H
Wilder Federal 29 3H

Original Borehole

Plan: Design #1

Standard Planning Report - Geographic

, 14 February, 2013

ConocoPhillips

Planning Report - Geographic

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Site Wilder Federal 29 3H
Company:	ConocoPhillips MCBU	**TVD Reference:**	KB @ 3185.0usft (Original Well Elev)
Project:	Permian Delaware Hz New Mexico	**MD Reference:**	KB @ 3185.0usft (Original Well Elev)
Site:	Wilder Federal 29 3H	**North Reference:**	Grid
Well:	Wilder Federal 29 3H	**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)
Geo Datum:	NAD 1927 (NADCON CONUS)
Map Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

Site	Wilder Federal 29 3H						
Site Position:		**Northing:**	371,508.58	usft	**Latitude:**		32.020
From:	Map	**Easting:**	696,523.49	usft	**Longitude:**		-103.699
Position Uncertainty:	0.0 usft	**Slot Radius:**	20	"	**Grid Convergence:**		0.34 °

Well	Wilder Federal 29 3H							
Well Position	**+N/-S**	0.0 usft	**Northing:**	371,508.58	usft	**Latitude:**		32.020
	+E/-W	0.0 usft	**Easting:**	696,523.49	usft	**Longitude:**		-103.699
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		usft	**Ground Level:**	3,160.0	usft

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2/12/2013	7.51	59.87	48,296

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	179.57

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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	6.00	359.57	1,399.5	15.7	-0.1	2.00	2.00	0.00	359.57	
3,980.0	6.00	359.57	3,965.3	285.4	-2.1	0.00	0.00	0.00	0.00	
4,280.0	0.00	0.00	4,264.8	301.1	-2.3	2.00	-2.00	0.00	180.00	
8,645.0	0.00	0.00	8,629.8	301.1	-2.3	0.00	0.00	0.00	0.00	
9,543.5	89.96	179.57	9,202.0	-270.8	2.0	10.01	10.01	0.00	179.57	
13,956.8	89.96	179.58	9,205.0	-4,684.0	34.8	0.00	0.00	0.00	78.55	Wilder 29 3H BHL

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	371,508.58	696,523.49	32.020	-103.699
200.0	0.00	0.00	200.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
400.0	0.00	0.00	400.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
600.0	0.00	0.00	600.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
800.0	0.00	0.00	800.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
1,000.0	0.00	0.00	1,000.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
1,030.0	0.00	0.00	1,030.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
13 3/8"									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	371,508.58	696,523.49	32.020	-103.699
1,200.0	2.00	359.57	1,200.0	1.7	0.0	371,510.33	696,523.48	32.020	-103.699
1,400.0	6.00	359.57	1,399.5	15.7	-0.1	371,524.27	696,523.37	32.020	-103.699
1,600.0	6.00	359.57	1,598.4	36.6	-0.3	371,545.18	696,523.21	32.020	-103.699
1,800.0	6.00	359.57	1,797.3	57.5	-0.4	371,566.08	696,523.06	32.020	-103.699
2,000.0	6.00	359.57	1,996.2	78.4	-0.6	371,586.99	696,522.90	32.020	-103.699
2,200.0	6.00	359.57	2,195.1	99.3	-0.7	371,607.89	696,522.74	32.020	-103.699
2,400.0	6.00	359.57	2,394.0	120.2	-0.9	371,628.80	696,522.59	32.020	-103.699
2,600.0	6.00	359.57	2,592.9	141.1	-1.1	371,649.70	696,522.43	32.020	-103.699
2,800.0	6.00	359.57	2,791.8	162.0	-1.2	371,670.61	696,522.27	32.020	-103.699
3,000.0	6.00	359.57	2,990.7	182.9	-1.4	371,691.51	696,522.12	32.020	-103.699
3,200.0	6.00	359.57	3,189.6	203.8	-1.5	371,712.42	696,521.96	32.020	-103.699
3,400.0	6.00	359.57	3,388.5	224.7	-1.7	371,733.32	696,521.80	32.020	-103.699
3,600.0	6.00	359.57	3,587.4	245.6	-1.8	371,754.23	696,521.65	32.020	-103.699
3,800.0	6.00	359.57	3,786.3	266.6	-2.0	371,775.13	696,521.49	32.021	-103.699

4,000.0	5.60	359.57	3,985.2	287.4	-2.2	371,795.97	696,521.33	32.021	-103.699
4,200.0	1.60	359.57	4,184.8	299.9	-2.3	371,808.53	696,521.24	32.021	-103.699
4,280.0	0.00	0.00	4,264.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
4,400.0	0.00	0.00	4,384.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
4,485.2	0.00	0.00	4,470.0	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
9 5/8"									
4,600.0	0.00	0.00	4,584.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
4,800.0	0.00	0.00	4,784.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
5,000.0	0.00	0.00	4,984.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
5,200.0	0.00	0.00	5,184.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
5,400.0	0.00	0.00	5,384.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
5,600.0	0.00	0.00	5,584.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
5,800.0	0.00	0.00	5,784.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
6,000.0	0.00	0.00	5,984.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
6,200.0	0.00	0.00	6,184.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
6,400.0	0.00	0.00	6,384.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
6,600.0	0.00	0.00	6,584.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
6,800.0	0.00	0.00	6,784.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
7,000.0	0.00	0.00	6,984.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
7,200.0	0.00	0.00	7,184.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
7,400.0	0.00	0.00	7,384.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
7,600.0	0.00	0.00	7,584.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
7,800.0	0.00	0.00	7,784.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,000.0	0.00	0.00	7,984.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,200.0	0.00	0.00	8,184.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,400.0	0.00	0.00	8,384.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,600.0	0.00	0.00	8,584.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,645.0	0.00	0.00	8,629.8	301.1	-2.3	371,809.64	696,521.23	32.021	-103.699
8,800.0	15.52	179.57	8,782.9	280.2	-2.1	371,788.78	696,521.39	32.021	-103.699
9,000.0	35.55	179.57	8,962.4	194.4	-1.5	371,703.01	696,522.03	32.020	-103.699

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	55.57	179.57	9,101.8	52.4	-0.4	371,560.95	696,523.10	32.020	-103.699
9,400.0	75.60	179.57	9,184.0	-128.8	1.0	371,379.77	696,524.46	32.019	-103.699
9,543.5	89.96	179.57	9,202.0	-270.8	2.0	371,237.83	696,525.52	32.019	-103.699
9,600.0	89.96	179.57	9,202.0	-327.3	2.5	371,181.29	696,525.95	32.019	-103.699
9,800.0	89.96	179.57	9,202.2	-527.3	4.0	370,981.29	696,527.45	32.018	-103.699
10,000.0	89.96	179.57	9,202.3	-727.3	5.5	370,781.30	696,528.94	32.018	-103.699
10,200.0	89.96	179.57	9,202.5	-927.3	7.0	370,581.30	696,530.44	32.017	-103.699
10,400.0	89.96	179.57	9,202.6	-1,127.3	8.4	370,381.31	696,531.93	32.017	-103.699
10,600.0	89.96	179.57	9,202.7	-1,327.3	9.9	370,181.31	696,533.43	32.016	-103.699
10,800.0	89.96	179.57	9,202.9	-1,527.3	11.4	369,981.32	696,534.92	32.016	-103.699
11,000.0	89.96	179.57	9,203.0	-1,727.3	12.9	369,781.33	696,536.41	32.015	-103.699
11,200.0	89.96	179.57	9,203.1	-1,927.2	14.4	369,581.33	696,537.90	32.015	-103.699
11,400.0	89.96	179.57	9,203.3	-2,127.2	15.9	369,381.34	696,539.38	32.014	-103.699
11,600.0	89.96	179.57	9,203.4	-2,327.2	17.4	369,181.34	696,540.87	32.013	-103.699
11,800.0	89.96	179.58	9,203.6	-2,527.2	18.9	368,981.35	696,542.35	32.013	-103.699
12,000.0	89.96	179.58	9,203.7	-2,727.2	20.3	368,781.35	696,543.83	32.012	-103.699
12,200.0	89.96	179.58	9,203.8	-2,927.2	21.8	368,581.36	696,545.31	32.012	-103.699
12,400.0	89.96	179.58	9,204.0	-3,127.2	23.3	368,381.36	696,546.79	32.011	-103.699
12,600.0	89.96	179.58	9,204.1	-3,327.2	24.8	368,181.37	696,548.27	32.011	-103.699
12,800.0	89.96	179.58	9,204.2	-3,527.2	26.3	367,981.38	696,549.74	32.010	-103.699
13,000.0	89.96	179.58	9,204.4	-3,727.2	27.7	367,781.38	696,551.22	32.010	-103.699

13,400.0	89.96	179.58	9,204.6	-4,127.2	30.7	367,381.39	696,554.16	32.008	-103.699
13,600.0	89.96	179.58	9,204.8	-4,327.2	32.1	367,181.40	696,555.63	32.008	-103.699
13,800.0	89.96	179.58	9,204.9	-4,527.2	33.6	366,981.40	696,557.09	32.007	-103.699
13,956.8	89.96	179.58	9,205.0	-4,684.0	34.8	366,824.60	696,558.24	32.007	-103.699

Targets

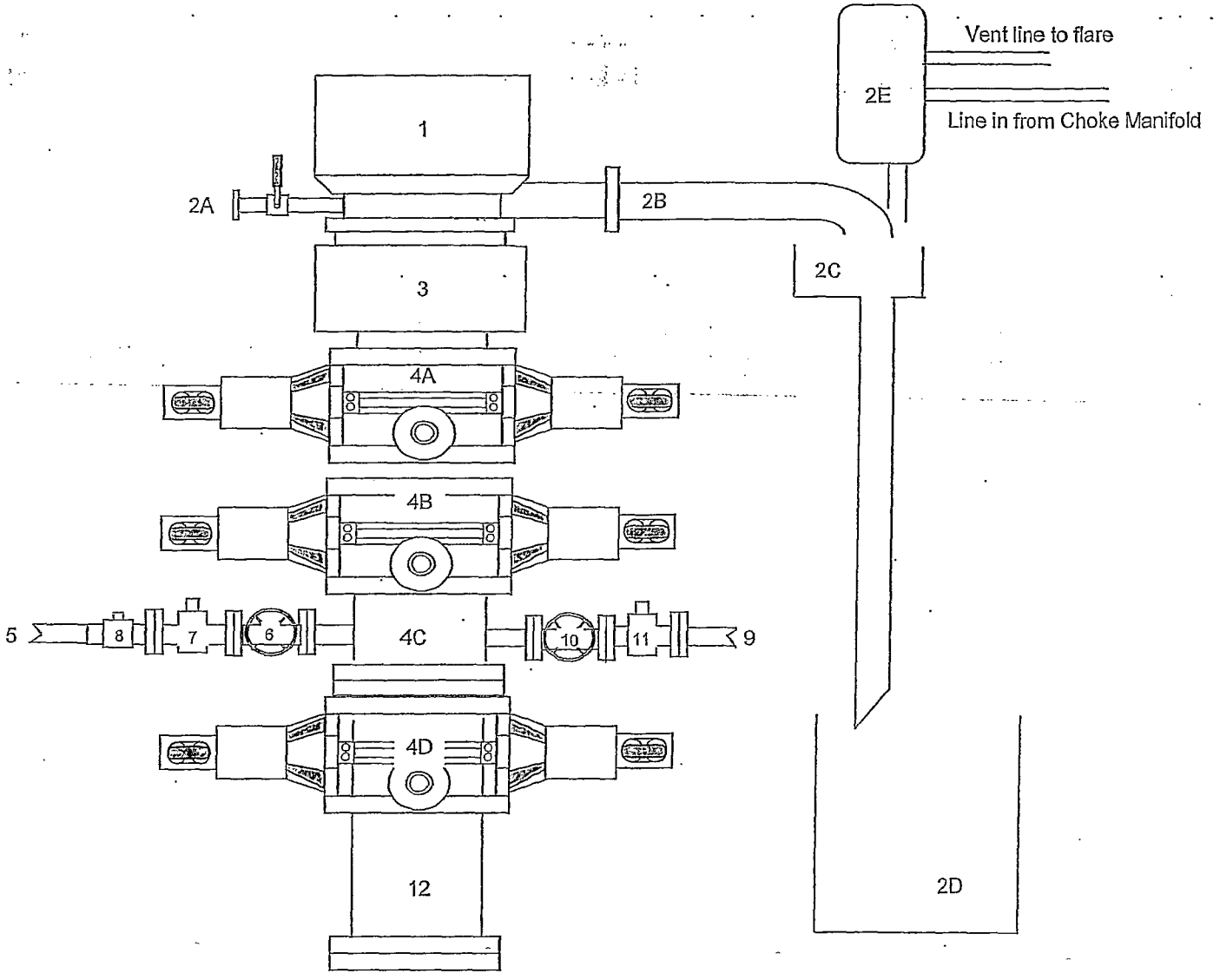
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Wilder 29 3H BHL - plan hits target center - Point	0.00	0.00	9,205.0	-4,684.0	34.8	366,824.60	696,558.24	32.007	-103.699

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,030.0	1,030.0	13 3/8"	13-3/8	17-1/2
4,485.2	4,470.0	9 5/8"	9-5/8	12-1/4

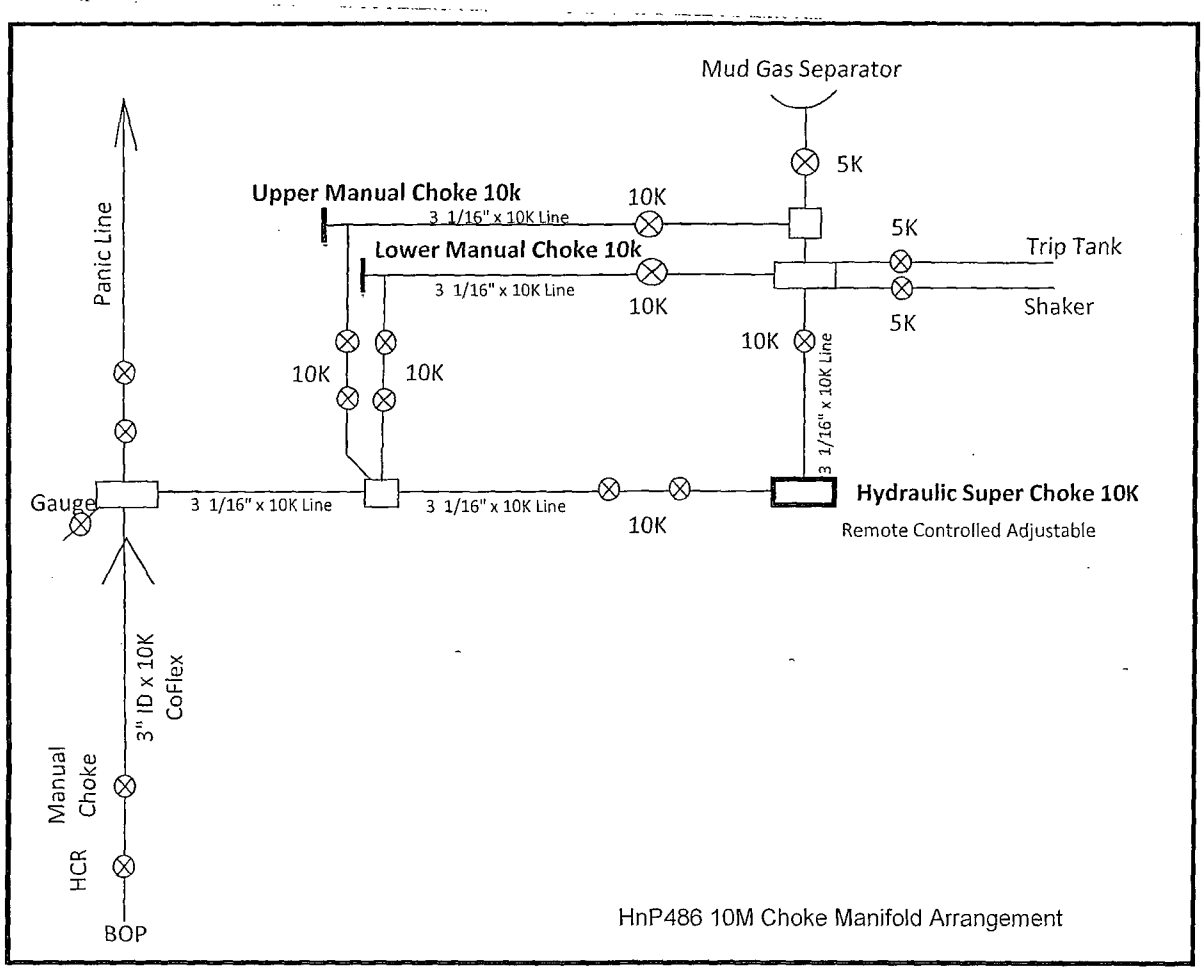
BLOWOUT PREVENTER ARRANGEMENT

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
10K
3 1/16" x 10K Line
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, P.O 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)

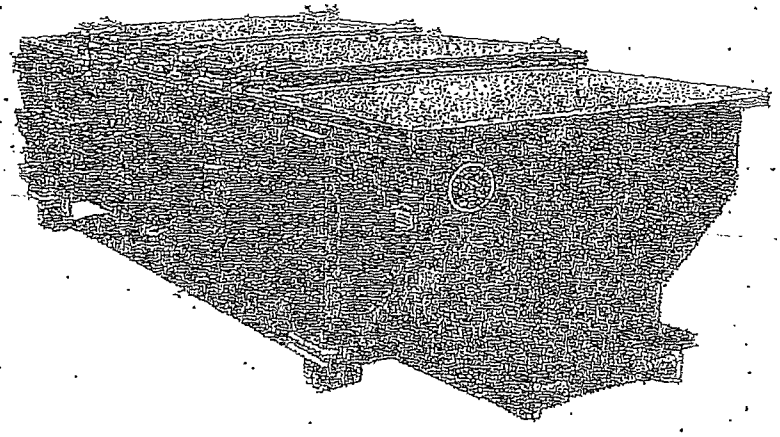
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

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

SPECIFICATIONS

Heavy Duty Split Metal Rolling Lid

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3" x 4.1# channel 16" on center
WALLS: 3/16" PL solid welded with tubing
TIE DOWN: Liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4" rails at each crossmember
WHEELS: 10" DIA. x 9" long with grease fittings
DOOR LATCH: 3 independent latches
HINGES: With chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainer
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" long (21'-8" inside), 96" - 7/8" = (83" inside) see drawing for height
OPTIONS: Steel grit blast and special paint
Amplifier Rail and Dino pick up
ROOF: 3/16" PL roof panels with tubing and channel stringer 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) 50" x 82" openings
With divider centered on container
LATCH: (2) independent latches, sides with chains per lid
GASKETS: Extruded rubber seal with metal retainers



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