

415-11-162

OCD Artesia

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No.
USA NMNM 099040

6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
Devon Energy Production Co., LP 6137

3a. Address 20 North Broadway
OKC, OK 73102

3b. Phone No. (include area code)
(405)-552-7802

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Sirius 17 Federal 2H 38350

9. API Well No.
30-015-38454

10. Field and Pool, or Exploratory
Hackberry; Bone Spring, NW 97020

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface SENE 1590' FNL & 340' FEL Lot H

At proposed prod. zone SENW 1660' FNL & 340' FWL Lot H

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

Sec 17-T19S-R31E

14. Distance in miles and direction from nearest town or post office*
Approximately 12 miles southeast of Loco Hills, NM.

UNORTHODOX
LOCATION

12. County or Parish
Eddy

13. State
NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 340'

16. No. of acres in lease
480

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. SL: 780' BHL: 515'

19. Proposed Depth
BH TVD 8889' MD 13301'
Ita TVD 8905'

20. BLM/BIA Bond No. on file
CO-1104

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3467' GL

22. Approximate date work will start*
12/15/2010

23. Estimated duration
45 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

Stephanie A. Ysasaga

11/01/2010

Title

Sr. Staff Engineering Technician

Approved by (Signature)

Is/ Don Peterson

Name (Printed/Typed)

Date

JAN 14 2011

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.

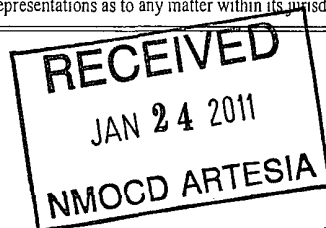
Conditions of approval, if any, are attached.

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.

*(Instructions on page 2)

Capitan Controlled Water Basin



NR

NS

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DRILLING PROGRAM

Devon Energy Production Company, LP

Sirius 17 Federal 2H

Surface Location: 1590' FNL & 340' FEL, Unit H, Sec 17 T19S R31E, Eddy, NM

Bottom hole Location: 1660' FNL & 340' FWL, Unit E, Sec 17 T19S R31E, Eddy, NM

1. Geologic Name of Surface Formation

- a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a. Rustler	455'	Barren
b. Salado	575'	Barren
c. Tansil Dolomite	1918'	Barren
d. Yates	2075'	Barren
e. Seven Rivers	2478'	Oil
f. Queen	3208'	Oil
g. San Andres	3898'	Oil
h. Delaware	4878'	Oil
i. Bone Springs	6498'	Oil
j. 1 st Bone Spring Ss	7853'	Oil
k. 2 nd Bone Spring Lime	8228'	Oil
l. 2 nd Bone Spring Ss	8668'	Oil
m. 2 nd Bone Spring Middle Ss	8848'	Oil
n. 2 nd Bone Spring Middle Ss Base	8928'	Oil
o. 3 rd Bone Spring Lime	9095'	Oil
p. PTD (pilot hole)	9170'	
q. Total Depth	TVD 8889' MD 13301'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 525' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at ~~3100'~~ ^{4150'} and circulating cement to surface. The Delaware intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

NOTE: THIS WELL WILL BE DRILLED WITH A PILOT HOLE (PH)

3. Casing Program:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0'-525'	13 3/8"	0'-525'	48#	STC	H-40
12 1/4"	525'- 3100' ^{4150'}	9 5/8"	0'- 3100' ^{4150'}	40#	LTC	J-55
8 3/4"	3100' -8200'	5 1/2"	0'-8200'	17#	LTC	P110HC
8 3/4"	8200'-13301'	5 1/2"	8200'-13301'	17#	BTC	P110HC

An 8-3/4" pilot hole will be drilled to 9,170' MD, and plugged back to KOP. The cement plug details are included below in the "Cementing Program".

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13 3/8"	2.99	6.72	12.20
9 5/8" 40# J-55	1.23	2.15	2.74
5 1/2" 17# LTC	1.64	2.02	1.55
5 1/2" 17# BTC	1.84	2.27	5.22

4. Cement Program:

a. 13 3/8" Conductor

Lead: 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81.4% Fresh Water, 13.5 ppg. **Yield:** 1.75 cf/sk

Tail: 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg. **Yield:** 1.35 cf/sk **TOC @ surface.**

b. 9 5/8" Intermediate

Lead: 750 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water, 12.5 ppg. **Yield:** 1.96 cf/sk

See COA

Tail: 300 sacks Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 52.7% Water, 14.8 ppg. **Yield:** 1.34 cf/sk. **TOC @ surface.**

c. 5 1/2" Production

1st Stage

Lead: 900 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg. **Yield:** 2.00 cf/sk

Tail: 1,400 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg. **Yield:** 1.28 cf/sk

DV TOOL at ~4,500 ft

2nd Stage

Lead: 250 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg. **Yield:**

2.89 cf/sk

Tail: 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg. **Yield:** 1.37cf/sk. **TOC @ 2,650 ft**

8-3/4" Pilot Hole Plug

650 sxs Class H, 18.0 ppg, 0.89 cf/sk
Top of Plug 8,428' (KOP)
Bottom of Plug ~~9,197~~ (Pilot Hole TD)
9,170'

See
COA

TOC for All Strings:

Surface: 0'
Intermediate: 0'
Production: ~~2,600~~

The above cement volumes could be revised pending the caliper measurement from the open hole logs. Actual cement volumes will be adjusted based on fluid caliper and caliper log data.

5. Pressure Control Equipment:

BOP DESIGN: The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

6. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 525' 4,150	8.4-9.0	30-34	NC	Fresh Water
525' - 3100'	9.8-10.0	28-32	NC	Brine
3100' - 13301'	8.6-9.0	28-32	NC-12	Fresh Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. Logging, Coring, and Testing Program:

- a. Drill stem tests will be based on geological sample shows.
- b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- c. The open hole electrical logging program will be: *See COA*
 - i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned
 - iv. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3600 psi and Estimated BHT 145°. No H₂S is anticipated to be encountered.

10. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Devon Energy, Inc.

Eddy County

Sirius "17" Federal

#2H

OH

Plan: Plan #1

Pathfinder X & Y Planning Report

12 November, 2010



Pathfinder
Pathfinder X & Y Planning Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County	TVD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Site:	Sirius "17" Federal	MD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Project	Eddy County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sirius "17" Federal		
Site Position:		Northing:	605,327.440 ft
From:	Map	Easting:	679,608.490 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 39' 47.833 N
		Longitude:	103° 53' 2.465 W
		Grid Convergence:	0.24 °

Well	#2H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty		0.00 ft	Wellhead Elevation:
			ft
			Latitude:
			32° 39' 47.833 N
			Longitude:
			103° 53' 2.465 W
			Ground Level:
			3,467.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	11/12/10	7.82
			Dip Angle
			(°)
			60.58
			Field Strength
			(nT)
			48,939

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			268.78

Survey Tool Program	Date 11/12/10		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
0.00	13,301.01	Plan #1 (OH)	Pathfinder
			Description
			Pathfinder MWD



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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,487.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
100.00	0.00	0.00	100.00	-3,387.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
200.00	0.00	0.00	200.00	-3,287.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
300.00	0.00	0.00	300.00	-3,187.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
400.00	0.00	0.00	400.00	-3,087.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
500.00	0.00	0.00	500.00	-2,987.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
600.00	0.00	0.00	600.00	-2,887.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
700.00	0.00	0.00	700.00	-2,787.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
800.00	0.00	0.00	800.00	-2,687.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
900.00	0.00	0.00	900.00	-2,587.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,000.00	0.00	0.00	1,000.00	-2,487.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,100.00	0.00	0.00	1,100.00	-2,387.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,200.00	0.00	0.00	1,200.00	-2,287.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,300.00	0.00	0.00	1,300.00	-2,187.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,400.00	0.00	0.00	1,400.00	-2,087.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,500.00	0.00	0.00	1,500.00	-1,987.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,600.00	0.00	0.00	1,600.00	-1,887.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,700.00	0.00	0.00	1,700.00	-1,787.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,800.00	0.00	0.00	1,800.00	-1,687.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
1,900.00	0.00	0.00	1,900.00	-1,587.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,000.00	0.00	0.00	2,000.00	-1,487.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,100.00	0.00	0.00	2,100.00	-1,387.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,200.00	0.00	0.00	2,200.00	-1,287.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,300.00	0.00	0.00	2,300.00	-1,187.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,400.00	0.00	0.00	2,400.00	-1,087.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,500.00	0.00	0.00	2,500.00	-987.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,600.00	0.00	0.00	2,600.00	-887.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49



Pathfinder Pathfinder X & Y Planning Report

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Wellbore: OH
Design: Plan #1

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2,700.00	0.00	0.00	2,700.00	-787.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,800.00	0.00	0.00	2,800.00	-687.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
2,900.00	0.00	0.00	2,900.00	-587.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,000.00	0.00	0.00	3,000.00	-487.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,100.00	0.00	0.00	3,100.00	-387.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,200.00	0.00	0.00	3,200.00	-287.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,300.00	0.00	0.00	3,300.00	-187.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,400.00	0.00	0.00	3,400.00	-87.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,500.00	0.00	0.00	3,500.00	13.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,600.00	0.00	0.00	3,600.00	113.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,700.00	0.00	0.00	3,700.00	213.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,800.00	0.00	0.00	3,800.00	313.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
3,900.00	0.00	0.00	3,900.00	413.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,000.00	0.00	0.00	4,000.00	513.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,100.00	0.00	0.00	4,100.00	613.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,200.00	0.00	0.00	4,200.00	713.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,300.00	0.00	0.00	4,300.00	813.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,400.00	0.00	0.00	4,400.00	913.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,500.00	0.00	0.00	4,500.00	1,013.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,600.00	0.00	0.00	4,600.00	1,113.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,700.00	0.00	0.00	4,700.00	1,213.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,800.00	0.00	0.00	4,800.00	1,313.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
4,900.00	0.00	0.00	4,900.00	1,413.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
5,000.00	0.00	0.00	5,000.00	1,513.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
5,100.00	0.00	0.00	5,100.00	1,613.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
5,200.00	0.00	0.00	5,200.00	1,713.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49
5,300.00	0.00	0.00	5,300.00	1,813.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49



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Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County	TVD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Site:	Sirius "17" Federal	MD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
5,400.00	0.00	0.00	5,400.00	1,913.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
5,500.00	0.00	0.00	5,500.00	2,013.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
5,600.00	0.00	0.00	5,600.00	2,113.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
5,700.00	0.00	0.00	5,700.00	2,213.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
5,800.00	0.00	0.00	5,800.00	2,313.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
5,900.00	0.00	0.00	5,900.00	2,413.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,000.00	0.00	0.00	6,000.00	2,513.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,100.00	0.00	0.00	6,100.00	2,613.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,200.00	0.00	0.00	6,200.00	2,713.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,300.00	0.00	0.00	6,300.00	2,813.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,400.00	0.00	0.00	6,400.00	2,913.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,500.00	0.00	0.00	6,500.00	3,013.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,600.00	0.00	0.00	6,600.00	3,113.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,700.00	0.00	0.00	6,700.00	3,213.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,800.00	0.00	0.00	6,800.00	3,313.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
6,900.00	0.00	0.00	6,900.00	3,413.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,000.00	0.00	0.00	7,000.00	3,513.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,100.00	0.00	0.00	7,100.00	3,613.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,200.00	0.00	0.00	7,200.00	3,713.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,300.00	0.00	0.00	7,300.00	3,813.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,400.00	0.00	0.00	7,400.00	3,913.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,500.00	0.00	0.00	7,500.00	4,013.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,600.00	0.00	0.00	7,600.00	4,113.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,700.00	0.00	0.00	7,700.00	4,213.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,800.00	0.00	0.00	7,800.00	4,313.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
7,900.00	0.00	0.00	7,900.00	4,413.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,000.00	0.00	0.00	8,000.00	4,513.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	



Pathfinder Pathfinder X & Y Planning Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County	TVD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Site:	Sirius "17" Federal	MD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
8,100.00	0.00	0.00	8,100.00	4,613.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,200.00	0.00	0.00	8,200.00	4,713.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,300.00	0.00	0.00	8,300.00	4,813.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,400.00	0.00	0.00	8,400.00	4,913.00	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,427.50	0.00	0.00	8,427.50	4,940.50	0.00	0.00	0.00	0.00	605,327.44	679,608.49	
8,450.00	2.70	268.78	8,449.99	4,962.99	-0.01	-0.53	0.53	12.00	605,327.43	679,607.96	
8,475.00	5.70	268.78	8,474.92	4,987.92	-0.05	-2.36	2.36	12.00	605,327.39	679,606.13	
8,500.00	8.70	268.78	8,499.72	5,012.72	-0.12	-5.49	5.49	12.00	605,327.32	679,603.00	
8,525.00	11.70	268.78	8,524.32	5,037.32	-0.21	-9.92	9.92	12.00	605,327.23	679,598.57	
8,550.00	14.70	268.78	8,548.66	5,061.66	-0.33	-15.62	15.63	12.00	605,327.11	679,592.87	
8,575.00	17.70	268.78	8,572.67	5,085.67	-0.48	-22.60	22.60	12.00	605,326.96	679,585.89	
8,600.00	20.70	268.78	8,596.27	5,109.27	-0.66	-30.81	30.82	12.00	605,326.78	679,577.68	
8,625.00	23.70	268.78	8,619.42	5,132.42	-0.86	-40.26	40.26	12.00	605,326.58	679,568.23	
8,650.00	26.70	268.78	8,642.04	5,155.04	-1.08	-50.90	50.91	12.00	605,326.36	679,557.59	
8,675.00	29.70	268.78	8,664.07	5,177.07	-1.34	-62.70	62.72	12.00	605,326.10	679,545.79	
8,700.00	32.70	268.78	8,685.45	5,198.45	-1.61	-75.65	75.67	12.00	605,325.83	679,532.84	
8,725.00	35.70	268.78	8,706.12	5,219.12	-1.91	-89.70	89.72	12.00	605,325.53	679,518.79	
8,750.00	38.70	268.78	8,726.04	5,239.04	-2.23	-104.81	104.83	12.00	605,325.21	679,503.68	
8,775.00	41.70	268.78	8,745.13	5,258.13	-2.58	-120.94	120.96	12.00	605,324.86	679,487.55	
8,800.00	44.70	268.78	8,763.35	5,276.35	-2.94	-138.04	138.07	12.00	605,324.50	679,470.45	
8,825.00	47.70	268.78	8,780.65	5,293.65	-3.32	-156.08	156.11	12.00	605,324.12	679,452.41	
8,850.00	50.70	268.78	8,796.99	5,309.99	-3.73	-175.00	175.04	12.00	605,323.71	679,433.49	
8,875.00	53.70	268.78	8,812.31	5,325.31	-4.15	-194.74	194.79	12.00	605,323.29	679,413.75	
8,900.00	56.70	268.78	8,826.58	5,339.58	-4.58	-215.26	215.31	12.00	605,322.86	679,393.23	
8,925.00	59.70	268.78	8,839.75	5,352.75	-5.04	-236.50	236.55	12.00	605,322.40	679,371.99	
8,950.00	62.69	268.78	8,851.80	5,364.80	-5.50	-258.40	258.46	12.00	605,321.94	679,350.09	
8,975.00	65.69	268.78	8,862.68	5,375.68	-5.98	-280.90	280.96	12.00	605,321.46	679,327.59	



Pathfinder Pathfinder X & Y Planning Report

Company: Devon Energy, Inc.
Project: Eddy County
Site: Sirius "17" Federal
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: WELL @ 3487.00ft (McVay #10 20' KB)
MD Reference: WELL @ 3487.00ft (McVay #10 20' KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,000.00	68.69	268.78	8,872.37	5,385.37	-6.47	-303.94	304.01	12.00	605,320.97	679,304.55
9,025.00	71.69	268.78	8,880.84	5,393.84	-6.97	-327.45	327.53	12.00	605,320.47	679,281.04
9,050.00	74.69	268.78	8,888.07	5,401.07	-7.48	-351.37	351.45	12.00	605,319.96	679,257.12
9,075.00	77.69	268.78	8,894.03	5,407.03	-8.00	-375.64	375.73	12.00	605,319.44	679,232.85
9,100.00	80.69	268.78	8,898.72	5,411.72	-8.52	-400.19	400.28	12.00	605,318.92	679,208.30
9,125.00	83.69	268.78	8,902.11	5,415.11	-9.05	-424.95	425.05	12.00	605,318.39	679,183.54
9,150.00	86.69	268.78	8,904.21	5,417.21	-9.58	-449.86	449.96	12.00	605,317.86	679,158.63
9,175.00	89.69	268.78	8,905.00	5,418.00	-10.11	-474.84	474.94	12.00	605,317.33	679,133.65
9,179.39	90.22	268.78	8,905.00	5,418.00	-10.21	-479.23	479.34	12.00	605,317.23	679,129.26
9,200.00	90.22	268.78	8,904.92	5,417.92	-10.64	-499.83	499.94	0.00	605,316.80	679,108.66
9,300.00	90.22	268.78	8,904.54	5,417.54	-12.77	-599.81	599.94	0.00	605,314.67	679,008.68
9,400.00	90.22	268.78	8,904.15	5,417.15	-14.90	-699.78	699.94	0.00	605,312.54	678,908.71
9,500.00	90.22	268.78	8,903.77	5,416.77	-17.03	-799.76	799.94	0.00	605,310.41	678,808.73
9,600.00	90.22	268.78	8,903.38	5,416.38	-19.16	-899.74	899.94	0.00	605,308.28	678,708.75
9,700.00	90.22	268.78	8,903.00	5,416.00	-21.29	-999.71	999.94	0.00	605,306.15	678,608.78
9,800.00	90.22	268.78	8,902.62	5,415.62	-23.42	-1,099.69	1,099.94	0.00	605,304.02	678,508.80
9,900.00	90.22	268.78	8,902.23	5,415.23	-25.55	-1,199.67	1,199.94	0.00	605,301.89	678,408.82
10,000.00	90.22	268.78	8,901.85	5,414.85	-27.68	-1,299.64	1,299.94	0.00	605,299.76	678,308.85
10,100.00	90.22	268.78	8,901.47	5,414.47	-29.81	-1,399.62	1,399.94	0.00	605,297.63	678,208.87
10,200.00	90.22	268.78	8,901.08	5,414.08	-31.94	-1,499.60	1,499.94	0.00	605,295.50	678,108.89
10,300.00	90.22	268.78	8,900.70	5,413.70	-34.06	-1,599.57	1,599.93	0.00	605,293.38	678,008.92
10,400.00	90.22	268.78	8,900.31	5,413.31	-36.19	-1,699.55	1,699.93	0.00	605,291.25	677,908.94
10,500.00	90.22	268.78	8,899.93	5,412.93	-38.32	-1,799.52	1,799.93	0.00	605,289.12	677,808.97
10,600.00	90.22	268.78	8,899.55	5,412.55	-40.45	-1,899.50	1,899.93	0.00	605,286.99	677,708.99
10,700.00	90.22	268.78	8,899.16	5,412.16	-42.58	-1,999.48	1,999.93	0.00	605,284.86	677,609.01
10,800.00	90.22	268.78	8,898.78	5,411.78	-44.71	-2,099.45	2,099.93	0.00	605,282.73	677,509.04
10,900.00	90.22	268.78	8,898.39	5,411.39	-46.84	-2,199.43	2,199.93	0.00	605,280.60	677,409.06



Pathfinder Pathfinder X & Y Planning Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County	TVD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Site:	Sirius "17" Federal	MD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
11,000.00	90.22	268.78	8,898.01	5,411.01	-48.97	-2,299.41	2,299.93	0.00	605,278.47	677,309.08
11,100.00	90.22	268.78	8,897.63	5,410.63	-51.10	-2,399.38	2,399.93	0.00	605,276.34	677,209.11
11,200.00	90.22	268.78	8,897.24	5,410.24	-53.23	-2,499.36	2,499.93	0.00	605,274.21	677,109.13
11,300.00	90.22	268.78	8,896.86	5,409.86	-55.36	-2,599.34	2,599.93	0.00	605,272.08	677,009.15
11,400.00	90.22	268.78	8,896.47	5,409.47	-57.49	-2,699.31	2,699.93	0.00	605,269.95	676,909.18
11,500.00	90.22	268.78	8,896.09	5,409.09	-59.61	-2,799.29	2,799.93	0.00	605,267.83	676,809.20
11,600.00	90.22	268.78	8,895.71	5,408.71	-61.74	-2,899.27	2,899.92	0.00	605,265.70	676,709.22
11,700.00	90.22	268.78	8,895.32	5,408.32	-63.87	-2,999.24	2,999.92	0.00	605,263.57	676,609.25
11,800.00	90.22	268.78	8,894.94	5,407.94	-66.00	-3,099.22	3,099.92	0.00	605,261.44	676,509.27
11,900.00	90.22	268.78	8,894.55	5,407.55	-68.13	-3,199.20	3,199.92	0.00	605,259.31	676,409.29
12,000.00	90.22	268.78	8,894.17	5,407.17	-70.26	-3,299.17	3,299.92	0.00	605,257.18	676,309.32
12,100.00	90.22	268.78	8,893.79	5,406.79	-72.39	-3,399.15	3,399.92	0.00	605,255.05	676,209.34
12,200.00	90.22	268.78	8,893.40	5,406.40	-74.52	-3,499.13	3,499.92	0.00	605,252.92	676,109.36
12,300.00	90.22	268.78	8,893.02	5,406.02	-76.65	-3,599.10	3,599.92	0.00	605,250.79	676,009.39
12,400.00	90.22	268.78	8,892.63	5,405.63	-78.78	-3,699.08	3,699.92	0.00	605,248.66	675,909.41
12,500.00	90.22	268.78	8,892.25	5,405.25	-80.91	-3,799.06	3,799.92	0.00	605,246.53	675,809.43
12,600.00	90.22	268.78	8,891.87	5,404.87	-83.03	-3,899.03	3,899.92	0.00	605,244.41	675,709.46
12,700.00	90.22	268.78	8,891.48	5,404.48	-85.16	-3,999.01	3,999.92	0.00	605,242.28	675,609.48
12,800.00	90.22	268.78	8,891.10	5,404.10	-87.29	-4,098.99	4,099.92	0.00	605,240.15	675,509.50
12,900.00	90.22	268.78	8,890.71	5,403.71	-89.42	-4,198.96	4,199.92	0.00	605,238.02	675,409.53
13,000.00	90.22	268.78	8,890.33	5,403.33	-91.55	-4,298.94	4,299.91	0.00	605,235.89	675,309.55
13,100.00	90.22	268.78	8,889.95	5,402.95	-93.68	-4,398.92	4,399.91	0.00	605,233.76	675,209.57
13,200.00	90.22	268.78	8,889.56	5,402.56	-95.81	-4,498.89	4,499.91	0.00	605,231.63	675,109.60
13,301.01	90.22	268.78	8,889.17	5,402.17	-97.96	-4,598.88	4,600.93	0.00	605,229.48	675,008.61

PBHL(Sirius 17#2)



Pathfinder
Pathfinder X & Y Planning Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County	TVD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Site:	Sirius "17" Federal	MD Reference:	WELL @ 3487.00ft (McVay #10 20' KB)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL(Sirius 17#2)	0.00	0.00	8,889.00	-97.66	-4,599.89	605,229.780	675,008.600	32° 39' 47.056 N	103° 53' 56.279 W
- plan hits target center									
- Point									

Checked By: _____	Approved By: _____	Date: _____
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Project: Eddy County
Site: Sirius "17" Federal
Well: #2H
Wellbore: OH
Plan: Plan #1 (#2H/OH)



Azimuths to Grid North
True North: -0.24°
Magnetic North: 7.58°

Magnetic Field
Strength: 48939.0snT
Dip Angle: 60.57°
Date: 11/12/2010
Model: IGRF200510

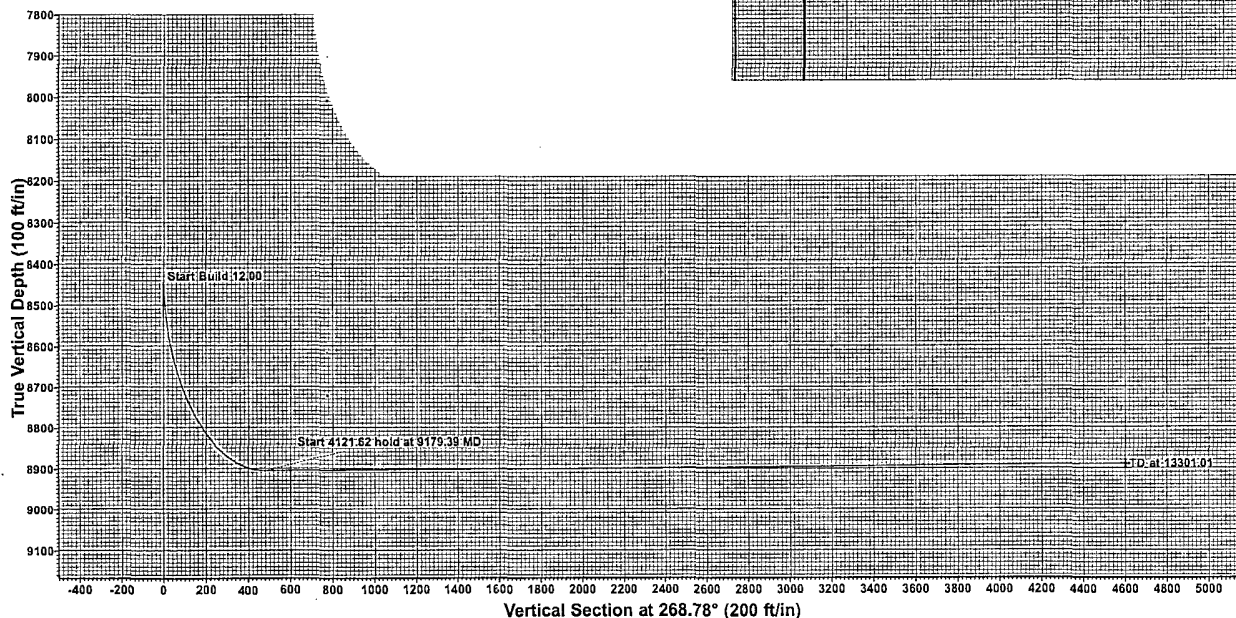
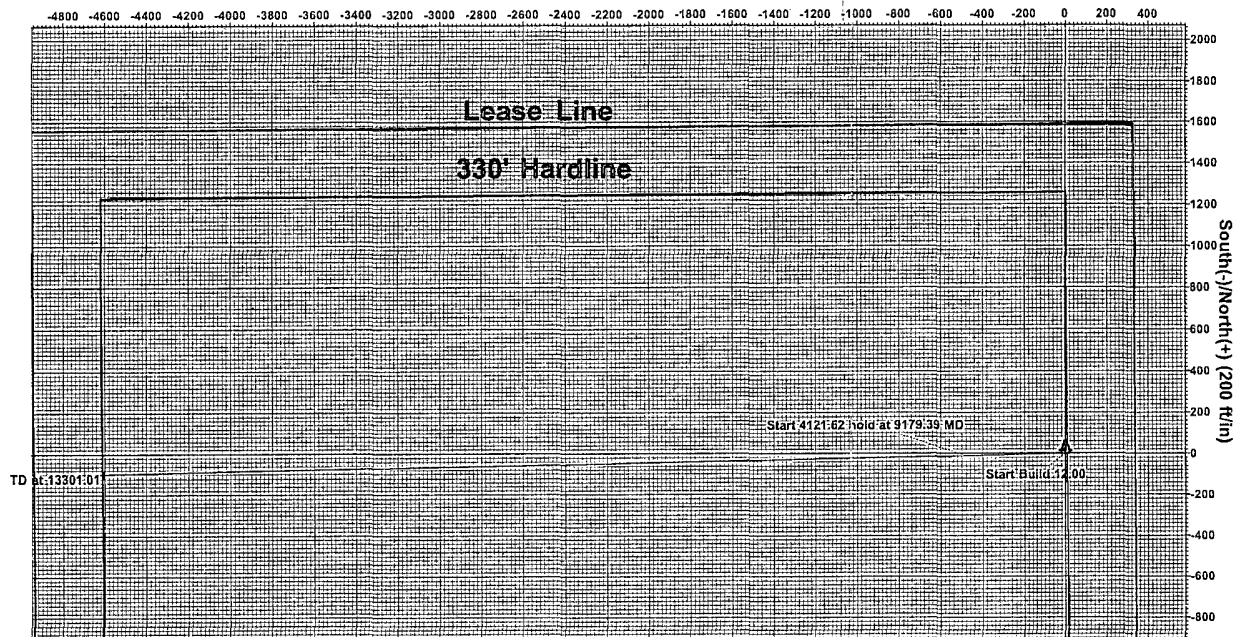


A Schlumberger Company

West(-)/East(+) (200 ft/in)

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8427.50	0.00	0.00	8427.50	0.00	0.00	0.00	0.00	0.00	
3	9179.39	90.22	268.78	8905.00	-10.21	-479.23	12.00	268.78	479.34	
4	13301.01	90.22	268.78	8889.17	-97.96	-4599.88	0.00	0.00	4600.93	PBHL(Sirius 17#2)

WELL DETAILS: #2H							
Ground Elevation:: 3467.00							
RKB Elevation: WELL @ 3467.00ft (McVay #10 20' KB)							
Rig Name: McVay #10 20' KB							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	605327.440	679608.490	32° 39' 47.833 N	103° 53' 2.465 W		



PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(Sirius 17#2)	8899.00	-97.66	-4399.89	605229.780	675008.600	Point

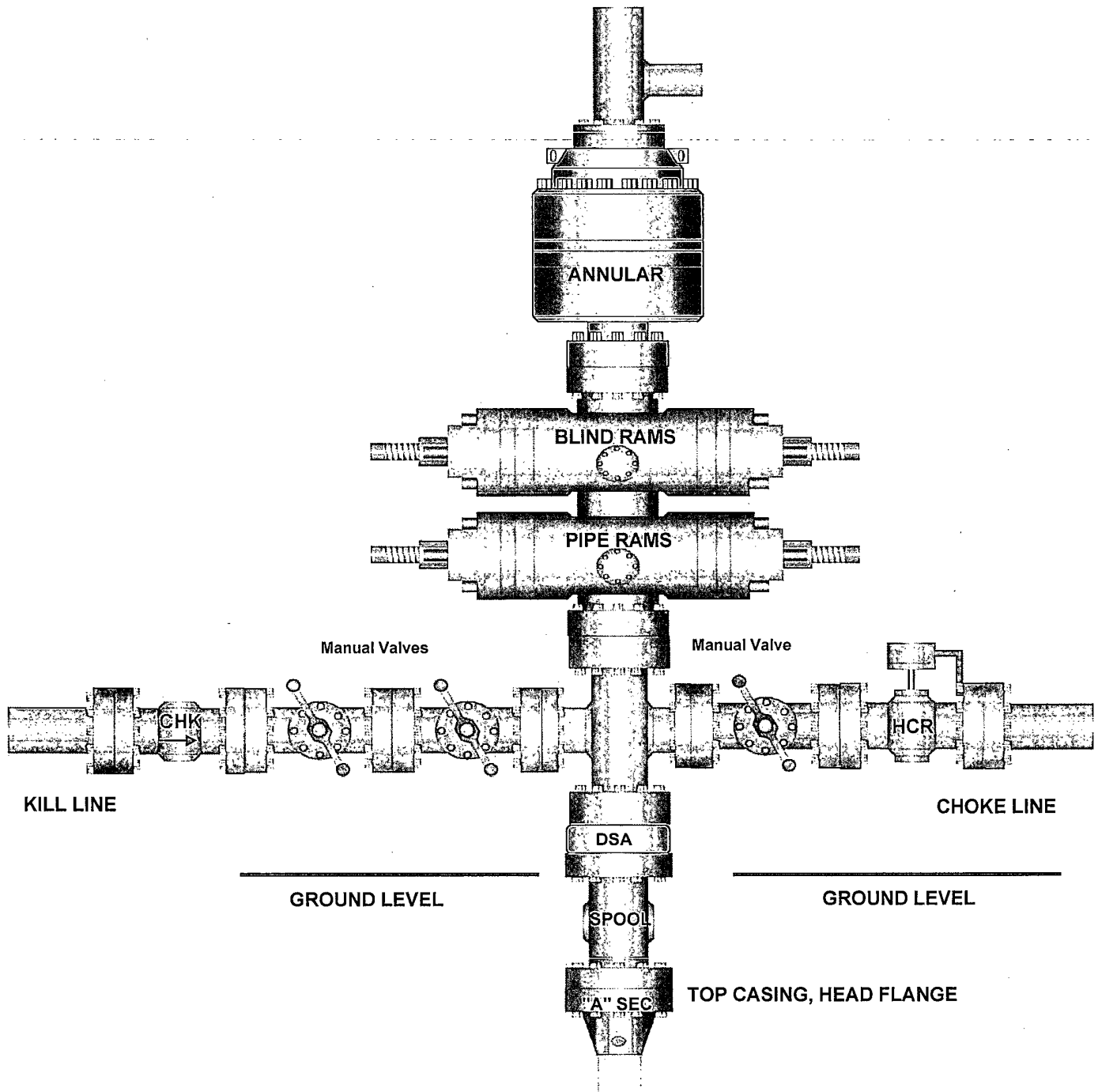
Plan: Plan #1 (#2H/OH)
Created By: Nate Bingham Date: 9:35, November 12 2010
Checked: _____ Date: _____

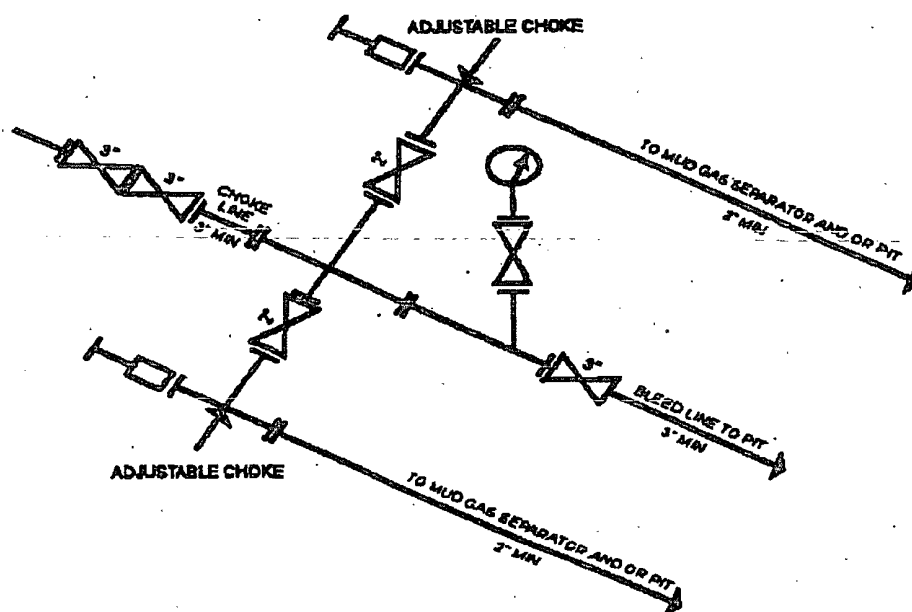
Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Sirius 17 Federal 2H

Surface Location: 1590' FNL & 340' FEL, Unit H, Sec 17 T19S R31E, Eddy, NM
Bottom hole Location: 1660' FNL & 340' FWL, Unit E, Sec 17 T19S R31E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

13-5/8" x 3,000 psi BOP Stack





3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
 [54 FR 39528, Sept. 27, 1989]