

OCD Artesia

Form 3160-3
(April 2004)

R-111-POTASH

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

EA 11-3541

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. BHL NM-0405444A; 0418220A SHL
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, LP		7. If Unit or CA Agreement, Name and No.
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-228-8699	8. Lease Name and Well No. Aldabra 27 Fed Com 4H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 200 FSL & 1700 FWL Unit N PP: 21 FSL & 2306 FWL At proposed prod. zone 2600 FSL & 2310 FWL Unit K SEC 22		9. API Well No. 30-015-38628
14. Distance in miles and direction from nearest town or post office* Approximately 22 miles east of Loving, NM.		10. Field and Pool, or Exploratory Lingle Wells, Upper Bone Spring
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200'	16. No. of acres in lease 1240 Acres/ 720 Acres	11. Sec., T. R. M. or Blk. and Survey or Area SEC 27 T23S R2E
17. Spacing Unit dedicated to this well 240 Acres	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See Attached Map	12. County or Parish Eddy County
19. Proposed Depth 16,549' MD 8890' TVD	20. BLM/BIA Bond No. on file CO-1104	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3414' GL	22. Approximate date work will start*	23. Estimated duration 45 days

UNORTHODOX LOCATION

24. Attachments Aldabra 27 Fed 2H, 3H and 4H will be pad drilled.

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Judy A. Barnett	Date 01/06/2011
Title Regulatory Specialist		

Approved by (Signature) /s/ Jesse J. Juen	Name (Printed/Typed) /s/ Jesse J. Juen	Date MAR 11 2011
Title FOR STATE DIRECTOR		
Office NM STATE 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.

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)

RECEIVED
MAR 22 2011
NMOCD ARTESIA

APPROVAL FOR TWO YEARS

K2 03/31/11

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

OCD CONDITION OF APPROVAL of Drilling:
Intent to drill ONLY --- CANNOT produce until the Non-Standard
Location has been approved by OCD Santa Fe office.

DRILLING PROGRAM

Devon Energy Production Company, LP

Aldabra 27 Fed Com 4H

Surface Location: 200' FSL & 1700' FWL, Unit N, Sec 27 T23S R31E, Eddy, NM

Bottom Hole Location: 2600' FSL & 2310' FWL, Unit K, Sec 22 T23S R31E, Eddy, NM

1. Geologic Name of Surface Formation

a. Quaternary

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

a. Quaternary	180'	Fresh Water
b. Rustler Dol	525'	
c. Salado Salt	836'	
d. Base of Salt	4039'	
e. Lamar	4284'	Oil
f. Bell Canyon	4324'	Oil
g. Cherry Canyon	5211'	Oil
h. Brushy Canyon	6475'	Oil
i. Avalon/Top of Bone Spring FM	8131'	Oil/Gas
Total Depth	16,549'	

See COA
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 625' and circulating cement back to surface. Fresh water sands will be protected by setting 9 5/8" casing at 4250 and circulating cement to surface. The Bone Spring intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement to surface.

Casing Program:

See COA

<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"	0-625'	13 3/8"	0'-625'	48#	ST&C	H-40
12 1/4"	625-4250'	9 5/8"	0'-4250'	40#	LT&C	J-55
8 3/4"	4250-7500'	5 1/2"	0'-7500'	17#	LT&C	HCP-110
8 3/4"	7500-16,549'	5 1/2"	7500-16,549'	17#	BT&C	HCP-110

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"	2.63	5.91	10.73
9 5/8" 40#	1.16	1.79	3.06
5 1/2" 17# LTC	2.13	3.03	1.60
5 1/2" 17# BTC	1.77	2.53	3.63

(All cement volumes are based upon at least 25% excess)

3.

Cement Program:

13 3/8" Surface

Lead: 500 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

TOC @ surface

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

9 5/8" Intermediate

Lead: 1,200 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:** 2.04 cf/sk

TOC @ surface

Tail: 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water, 13.8 ppg **Yield:** 1.37 cf/sk

5 1/2" Production

1st Stage

Lead: 560 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:** 2.01 cf/sk

Tail: 2,200 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 6,000'

2nd Stage

Lead: 325 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield:** 2.88 cf/sk

Tail: 100 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

DV TOOL at 3,800'

3rd Stage

Lead: 375 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield:** 2.91 cf/sk

TOC @ surface

Tail: 100 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

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

All casing is new and API approved.

Pressure Control Equipment:

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M ~~Double~~ ^{Triple} 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~~ ^{Triple} 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.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

Proposed Mud Circulation System

See COA

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 825'	8.4-9.0	30-34	NC	FW
825' - 4250'	9.8-10.0	28-32	NC	Brine
4250' - 16,549'	8.6-9.0	28-32	NC	FW

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

4. 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.
- 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.

5. Logging, Coring, and Testing Program:

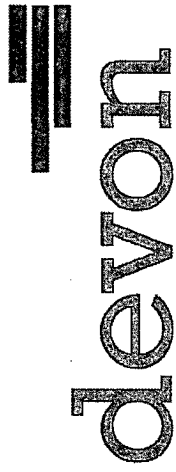
- See COA
- Drill stem tests will be based on geological sample shows.
 - If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
 - The open hole electrical logging program will be:
 - Total Depth to Intermediate Casing
Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper. Dual Laterolog-Micro Laterolog with SP and Gamma
 - Total Depth to Surface
Compensated Neutron with Gamma Ray
 - No coring program is planned
 - 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.

6. Potential Hazards:

- 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 4200 psi and Estimated BHT 140°. No H2S is anticipated to be encountered.

7. Anticipated Starting Date and Duration of Operations:

- See COA
- 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. Depending on rig availability, Devon may set the surface casing using an Ashton Oilfield Services rig. The rig plat is attached. This rig will be used only to set the surface casing and will leave the location once the surface casing has been run and cemented. Another rig will drill the remainder of the wellbore. The reasons for using the smaller rig to set surface are: rig availability and economics.



Devon Energy, Inc.

Eddy County

Aldabra "27" Fed

#4H

OH

Plan: Plan #1

Pathfinder X & Y Planning Report

05 October, 2010

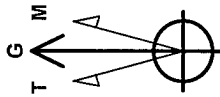
PATHFINDER®

A Schlumberger Company



Azimuths to Grid North
 True North: -0.30°
 Magnetic North: 7.43°

Magnetic Field
 Strength: 48710.1 nT
 Dip Angle: 60.23°
 Date: 11/30/2010
 Model: IGRF200510



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

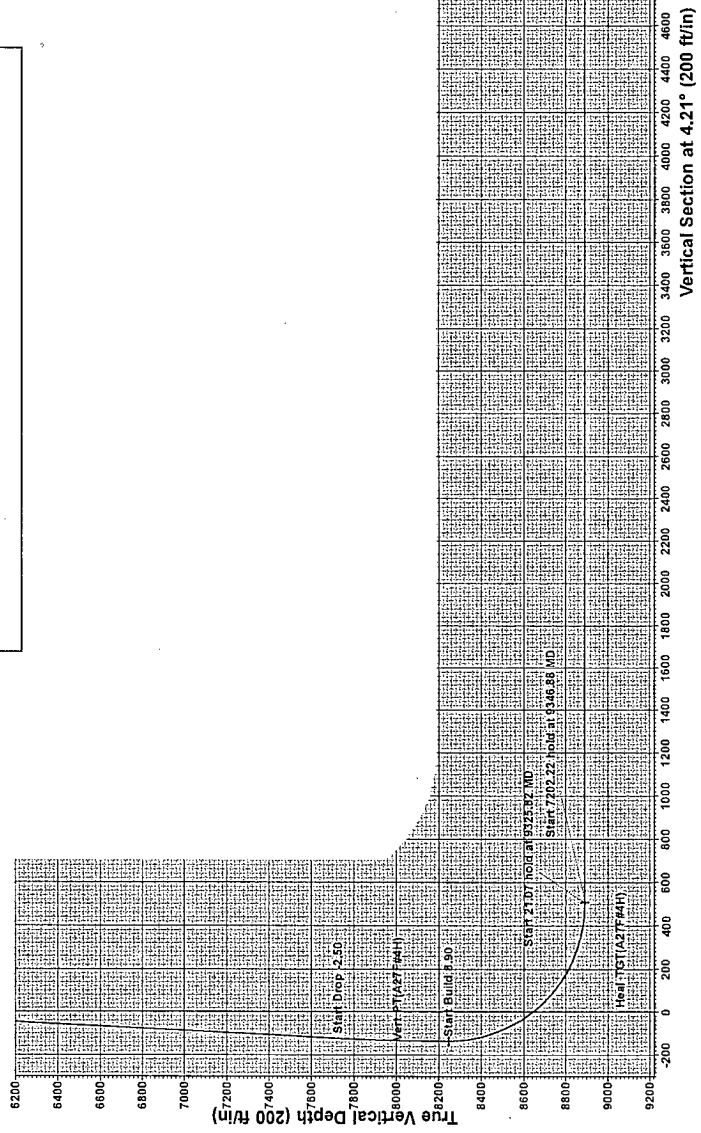
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	D/Esg	T/Face	V/Esc	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5092.62	0.00	5090.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	5524.62	13.12	106.51	5520.05	-16.39	57.32	2.50	106.51	-132.73	
4	7789.60	13.12	106.51	7728.95	-16.31	55.01	0.00	0.00	-127.15	
5	8314.22	0.00	0.00	8248.00	607.42	607.42	2.50	180.00	-134.88	Vert PT(A27F44H)
6	8346.38	90.00	359.70	8300.00	485.06	485.06	2.50	359.70	526.12	
7	9346.38	90.00	359.70	8890.00	450.94	603.94	0.00	0.00	526.12	
8	16549.10	90.00	359.70	8890.00	7887.18	556.38	0.00	0.00	7706.02	PBH(A27F44H)

WELL DETAILS: #4H

Ground Elevation:: 3414.60
RKB Elevation: H&P #416 @ 3439.60ft (25' KB Correction)
Rig Name: 25' KB Correction

Slot	Longitude	Latitude	Easting
10	103° 46' 7.364 W	32° 16' 7.455 N	715852.140

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)							
	NAMES	TVD	+N/S	+E/W	Northing	Easting	Shape Point
	Vort PT(427574H)	8248.00	-180.00	807.42	481770.510	716493.580	Point
	Head TGI(427574H)	8850.00	-483.97	807.42	482422.280	716493.580	Point
	PBHI(427744H)	8890.00	7687.18	566.38	485945.990	716476.520	Point





Pathfinder
Pathfinder X & Y Planning Report



Company: Devon Energy, Inc.		Local Co-ordinate Reference:		Well #4H	
Project: Eddy County		TVD Reference:		H&P #416 @ 3439.60ft (25' KB Correction)	
Site: Aldabra "27" Fed		MD Reference:		H&P #416 @ 3439.60ft (25' KB Correction)	
Well: #4H		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 Aldabra "27" Fed					
Site Position:		Northing: 461,950.580 ft		Latitude: 32° 16' 7.447 N	
From: Map		Easting: 714,427.100 ft		Longitude: 103° 46' 23.961 W	
Position Uncertainty: 2.00 ft		Slot Radius: 6-1/8"		Grid Convergence: 0.30°	
Well #4H					
Well Position		Northing: 461,958.810 ft		Latitude: 32° 16' 7.455 N	
+N/-S 0.00 ft		Easting: 715,852.140 ft		Longitude: 103° 46' 7.364 W	
+E/-W 0.00 ft		Wellhead Elevation: ft		Ground Level: 3,414.60 ft	
Position Uncertainty 2.00 ft					
Wellbore OH					
Magnetics		Model Name		Sample Date	
		IGRF200510		11/30/10	
		Declination (°)		Dip Angle (°)	
		7.73		60.23	
		Field Strength (nT)		48,710	
Design Plan #1					
Audit Notes:					
Version:					
Vertical Section:		Phase: PLAN		Tie On Depth: 0.00	
Depth From (TVD) (ft)		+N/-S (ft)		+E/-W (ft)	
0.00		0.00		0.00	
Direction (°)		4.21			
Survey Tool Program Date 10/05/10					
From (ft)		To (ft)		Survey (Wellbore)	
0.00		16,548.30		Plan #1 (OH)	
		Tool Name		Description	
		Pathfinder		Pathfinder MWD	



Pathfinder

Pathfinder X & Y Planning Report



A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #4H
Project:	Eddy County	TVD Reference:	H&P #416 @ 3439.60ft (25' KB Correction)
Site:	Aldabra "27" Fed	MD Reference:	H&P #416 @ 3439.60ft (25' KB Correction)
Well:	#4H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVSS (ft)	N/S (ft)	EW (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,439.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
100.00	0.00	0.00	100.00	-3,339.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
200.00	0.00	0.00	200.00	-3,239.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
300.00	0.00	0.00	300.00	-3,139.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
400.00	0.00	0.00	400.00	-3,039.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
500.00	0.00	0.00	500.00	-2,939.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
600.00	0.00	0.00	600.00	-2,839.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
700.00	0.00	0.00	700.00	-2,739.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
800.00	0.00	0.00	800.00	-2,639.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
900.00	0.00	0.00	900.00	-2,539.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,000.00	0.00	0.00	1,000.00	-2,439.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,100.00	0.00	0.00	1,100.00	-2,339.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,200.00	0.00	0.00	1,200.00	-2,239.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,300.00	0.00	0.00	1,300.00	-2,139.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,400.00	0.00	0.00	1,400.00	-2,039.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,500.00	0.00	0.00	1,500.00	-1,939.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,600.00	0.00	0.00	1,600.00	-1,839.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,700.00	0.00	0.00	1,700.00	-1,739.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,800.00	0.00	0.00	1,800.00	-1,639.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
1,900.00	0.00	0.00	1,900.00	-1,539.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,000.00	0.00	0.00	2,000.00	-1,439.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,100.00	0.00	0.00	2,100.00	-1,339.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,200.00	0.00	0.00	2,200.00	-1,239.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,300.00	0.00	0.00	2,300.00	-1,139.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,400.00	0.00	0.00	2,400.00	-1,039.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,500.00	0.00	0.00	2,500.00	-939.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,600.00	0.00	0.00	2,600.00	-839.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #4H
Project:	Eddy County	TVD Reference:	H&P #416 @ 3439.60ft (25' KB Correction)
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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDS (ft)	N/S (ft)	EW (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-739.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,800.00	0.00	0.00	2,800.00	-639.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
2,900.00	0.00	0.00	2,900.00	-539.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,000.00	0.00	0.00	3,000.00	-439.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,100.00	0.00	0.00	3,100.00	-339.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,200.00	0.00	0.00	3,200.00	-239.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,300.00	0.00	0.00	3,300.00	-139.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,400.00	0.00	0.00	3,400.00	-39.60	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,500.00	0.00	0.00	3,500.00	60.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,600.00	0.00	0.00	3,600.00	160.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,700.00	0.00	0.00	3,700.00	260.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,800.00	0.00	0.00	3,800.00	360.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
3,900.00	0.00	0.00	3,900.00	460.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,000.00	0.00	0.00	4,000.00	560.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,100.00	0.00	0.00	4,100.00	660.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,200.00	0.00	0.00	4,200.00	760.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,300.00	0.00	0.00	4,300.00	860.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,400.00	0.00	0.00	4,400.00	960.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,500.00	0.00	0.00	4,500.00	1,060.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,600.00	0.00	0.00	4,600.00	1,160.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,700.00	0.00	0.00	4,700.00	1,260.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,800.00	0.00	0.00	4,800.00	1,360.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
4,900.00	0.00	0.00	4,900.00	1,460.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
5,000.00	0.00	0.00	5,000.00	1,560.40	0.00	0.00	0.00	0.00	461,958.81	715,852.14
5,100.00	2.50	106.51	5,099.97	1,660.37	-0.62	2.09	-0.46	0.00	461,958.19	715,854.23
5,200.00	5.00	106.51	5,199.75	1,760.15	-2.48	8.36	-1.86	0.00	461,956.33	715,860.50
5,300.00	7.50	106.51	5,299.14	1,859.54	-5.57	18.80	-4.17	0.00	461,953.24	715,870.94



Pathfinder

Pathfinder X & Y Planning Report



Company: Devon Energy, Inc.
Project: Eddy County
Site: Aldabra "27" Fed
Well: #4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #4H
H&P #416 @ 3439.60ft (25' KB Correction)
H&P #416 @ 3439.60ft (25' KB Correction)
Grid:
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	10.00	106.51	5,397.97	1,958.37	-9.89	33.38	-7.41	2.50	461,948.92	715,885.52
5,500.00	12.50	106.51	5,496.04	2,056.44	-15.44	52.09	-11.57	2.50	461,943.37	715,904.23
5,524.62	13.12	106.51	5,520.05	2,080.45	-16.99	57.32	-12.73	2.50	461,941.82	715,909.46
5,600.00	13.12	106.51	5,593.46	2,153.86	-21.85	73.72	-16.37	0.00	461,936.96	715,925.86
5,700.00	13.12	106.51	5,690.86	2,251.26	-28.29	95.48	-21.20	0.00	461,930.52	715,947.62
5,800.00	13.12	106.51	5,788.25	2,348.65	-34.74	117.23	-26.03	0.00	461,924.07	715,969.37
5,900.00	13.12	106.51	5,885.64	2,446.04	-41.19	138.99	-30.86	0.00	461,917.62	715,991.13
6,000.00	13.12	106.51	5,983.03	2,543.43	-47.63	160.75	-35.69	0.00	461,911.18	716,012.89
6,100.00	13.12	106.51	6,080.42	2,640.82	-54.08	182.50	-40.53	0.00	461,904.73	716,034.64
6,200.00	13.12	106.51	6,177.81	2,738.21	-60.53	204.26	-45.36	0.00	461,898.28	716,056.40
6,300.00	13.12	106.51	6,275.20	2,835.60	-66.98	226.02	-50.19	0.00	461,891.83	716,078.16
6,400.00	13.12	106.51	6,372.60	2,933.00	-73.42	247.77	-55.02	0.00	461,885.39	716,099.91
6,500.00	13.12	106.51	6,469.99	3,030.39	-79.87	269.53	-59.85	0.00	461,878.94	716,121.67
6,600.00	13.12	106.51	6,567.38	3,127.78	-86.32	291.28	-64.68	0.00	461,872.49	716,143.42
6,700.00	13.12	106.51	6,664.77	3,225.17	-92.77	313.04	-69.51	0.00	461,866.04	716,165.18
6,800.00	13.12	106.51	6,762.16	3,322.56	-99.21	334.80	-74.34	0.00	461,859.60	716,186.94
6,900.00	13.12	106.51	6,859.55	3,419.95	-105.66	356.55	-79.17	0.00	461,853.15	716,208.69
7,000.00	13.12	106.51	6,956.94	3,517.34	-112.11	378.31	-84.01	0.00	461,846.70	716,230.45
7,100.00	13.12	106.51	7,054.34	3,614.74	-118.55	400.07	-88.84	0.00	461,840.26	716,252.21
7,200.00	13.12	106.51	7,151.73	3,712.13	-125.00	421.82	-93.67	0.00	461,833.81	716,273.96
7,300.00	13.12	106.51	7,249.12	3,809.52	-131.45	443.58	-98.50	0.00	461,827.36	716,295.72
7,400.00	13.12	106.51	7,346.51	3,906.91	-137.90	465.34	-103.33	0.00	461,820.91	716,317.48
7,500.00	13.12	106.51	7,443.90	4,004.30	-144.34	487.09	-108.16	0.00	461,814.47	716,339.23
7,600.00	13.12	106.51	7,541.29	4,101.69	-150.79	508.85	-112.99	0.00	461,808.02	716,360.99
7,700.00	13.12	106.51	7,638.68	4,199.08	-157.24	530.61	-117.82	0.00	461,801.57	716,382.75
7,789.60	13.12	106.51	7,725.95	4,286.35	-163.01	550.10	-122.15	0.00	461,795.80	716,402.24
7,800.00	12.86	106.51	7,736.08	4,296.48	-163.68	552.34	-122.65	2.50	461,795.13	716,404.48



Pathfinder
Pathfinder X & Y Planning Report



Company: Devon Energy, Inc.
Project: Eddy County
Site: Aldabra "27" Fed
Well: #4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #4H:
H&P #416 @ 3439.60ft (25' KB Correction)
H&P #416 @ 3439.60ft (25' KB Correction)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
7,900.00	10.36	106.51	7,834.03	4,394.43	-169.39	571.63	-126.93	2.50	461,789.42	716,423.77
8,000.00	7.86	106.51	7,932.76	4,493.16	-173.89	586.80	-130.30	2.50	461,784.92	716,438.94
8,100.00	5.36	106.51	8,032.09	4,592.49	-177.16	597.83	-132.75	2.50	461,781.65	716,449.97
8,200.00	2.86	106.51	8,131.82	4,692.22	-179.19	604.69	-134.27	2.50	461,779.62	716,456.83
8,300.00	0.36	106.51	8,231.78	4,792.18	-179.99	607.38	-134.87	2.50	461,778.82	716,459.52
8,314.22	0.00	0.00	8,246.00	4,806.40	-180.00	607.42	-134.88	2.50	461,778.81	716,459.56
Vert PT(A27F#4H)										
8,350.00	3.18	359.70	8,281.76	4,842.16	-179.01	607.41	-133.89	8.90	461,779.80	716,459.55
8,400.00	7.63	359.70	8,331.52	4,891.92	-174.30	607.39	-129.19	8.90	461,784.51	716,459.53
8,450.00	12.08	359.70	8,380.77	4,941.17	-165.74	607.35	-120.66	8.90	461,793.07	716,459.49
8,500.00	16.53	359.70	8,429.21	4,989.61	-153.39	607.28	-108.35	8.90	461,805.42	716,459.42
8,550.00	20.98	359.70	8,476.54	5,036.94	-137.32	607.20	-92.33	8.90	461,821.49	716,459.34
8,600.00	25.43	359.70	8,522.49	5,082.89	-117.63	607.09	-72.70	8.90	461,841.18	716,459.23
8,650.00	29.87	359.70	8,566.77	5,127.17	-94.43	606.97	-49.58	8.90	461,864.38	716,459.11
8,700.00	34.32	359.70	8,609.12	5,169.52	-67.87	606.83	-23.10	8.90	461,890.94	716,458.97
8,750.00	38.77	359.70	8,649.27	5,209.67	-38.10	606.68	6.58	8.90	461,920.71	716,458.82
8,800.00	43.22	359.70	8,687.00	5,247.40	-5.31	606.51	39.27	8.90	461,953.50	716,458.65
8,850.00	47.67	359.70	8,722.08	5,282.48	30.31	606.32	74.78	8.90	461,989.12	716,458.46
8,900.00	52.12	359.70	8,754.28	5,314.68	68.54	606.12	112.89	8.90	462,027.35	716,458.26
8,950.00	56.56	359.70	8,783.42	5,343.82	109.15	605.91	153.38	8.90	462,067.96	716,458.05
9,000.00	61.01	359.70	8,809.32	5,369.72	151.90	605.68	196.00	8.90	462,110.71	716,457.82
9,050.00	65.46	359.70	8,831.83	5,392.23	196.53	605.45	240.49	8.90	462,155.34	716,457.59
9,100.00	69.91	359.70	8,850.81	5,411.21	242.78	605.21	286.59	8.90	462,201.59	716,457.35
9,150.00	74.36	359.70	8,866.15	5,426.55	290.35	604.96	334.02	8.90	462,249.16	716,457.10
9,200.00	78.81	359.70	8,877.75	5,438.15	338.98	604.70	382.49	8.90	462,297.79	716,456.84
9,250.00	83.25	359.70	8,885.54	5,445.94	388.35	604.44	431.72	8.90	462,347.16	716,456.58
9,300.00	87.70	359.70	8,889.48	5,449.88	438.18	604.18	481.39	8.90	462,396.99	716,456.32



Pathfinder
Pathfinder X & Y Planning Report



Company: Devon Energy, Inc.
Project: Eddy County
Site: Aldabra "27" Fed
Well: #4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #4H
H&P #416 @ 3439.60ft (25' KB Correction)
H&P #416 @ 3439.60ft (25' KB Correction)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
9,325.28	89.95	359.70	8,890.00	5,450.40	463.45	604.05	506.58	8.90	462,422.26	716,456.19
Heal TGT(A27F#4H)										
9,325.82	90.00	359.70	8,890.00	5,450.40	463.99	604.05	507.12	8.90	462,422.80	716,456.19
9,346.88	90.00	359.70	8,890.00	5,450.40	485.06	603.94	528.12	0.00	462,443.87	716,456.08
9,400.00	90.00	359.70	8,890.00	5,450.40	538.17	603.66	581.08	0.00	462,496.98	716,455.80
9,500.00	90.00	359.70	8,890.00	5,450.40	638.17	603.14	680.77	0.00	462,596.98	716,455.28
9,600.00	90.00	359.70	8,890.00	5,450.40	738.17	602.61	780.46	0.00	462,696.98	716,454.75
9,700.00	90.00	359.70	8,890.00	5,450.40	838.17	602.09	880.15	0.00	462,796.98	716,454.23
9,800.00	90.00	359.70	8,890.00	5,450.40	938.17	601.57	979.84	0.00	462,896.98	716,453.71
9,900.00	90.00	359.70	8,890.00	5,450.40	1,038.17	601.04	1,079.52	0.00	462,996.98	716,453.18
10,000.00	90.00	359.70	8,890.00	5,450.40	1,138.17	600.52	1,179.21	0.00	463,096.98	716,452.66
10,100.00	90.00	359.70	8,890.00	5,450.40	1,238.16	599.99	1,278.90	0.00	463,196.97	716,452.13
10,200.00	90.00	359.70	8,890.00	5,450.40	1,338.16	599.47	1,378.59	0.00	463,296.97	716,451.61
10,300.00	90.00	359.70	8,890.00	5,450.40	1,438.16	598.95	1,478.28	0.00	463,396.97	716,451.09
10,400.00	90.00	359.70	8,890.00	5,450.40	1,538.16	598.42	1,577.97	0.00	463,496.97	716,450.56
10,500.00	90.00	359.70	8,890.00	5,450.40	1,638.16	597.90	1,677.66	0.00	463,596.97	716,450.04
10,600.00	90.00	359.70	8,890.00	5,450.40	1,738.16	597.38	1,777.35	0.00	463,696.97	716,449.52
10,700.00	90.00	359.70	8,890.00	5,450.40	1,838.16	596.85	1,877.04	0.00	463,796.97	716,448.99
10,800.00	90.00	359.70	8,890.00	5,450.40	1,938.15	596.33	1,976.73	0.00	463,896.96	716,448.47
10,900.00	90.00	359.70	8,890.00	5,450.40	2,038.15	595.81	2,076.42	0.00	463,996.96	716,447.95
11,000.00	90.00	359.70	8,890.00	5,450.40	2,138.15	595.28	2,176.11	0.00	464,096.96	716,447.42
11,100.00	90.00	359.70	8,890.00	5,450.40	2,238.15	594.76	2,275.80	0.00	464,196.96	716,446.90
11,200.00	90.00	359.70	8,890.00	5,450.40	2,338.15	594.24	2,375.49	0.00	464,296.96	716,446.38
11,300.00	90.00	359.70	8,890.00	5,450.40	2,438.15	593.71	2,475.18	0.00	464,396.96	716,445.85
11,400.00	90.00	359.70	8,890.00	5,450.40	2,538.15	593.19	2,574.87	0.00	464,496.96	716,445.33
11,500.00	90.00	359.70	8,890.00	5,450.40	2,638.15	592.66	2,674.56	0.00	464,596.96	716,444.80
11,600.00	90.00	359.70	8,890.00	5,450.40	2,738.14	592.14	2,774.25	0.00	464,696.95	716,444.28



Pathfinder
Pathfinder X & Y Planning Report



Company:	Devon Energy, Inc.	Well #4H	Local Co-ordinate Reference:
Project:	Eddy County	H&P #416 @ 3439.60ft (25' KB Correction)	TVD Reference:
Site:	Aldabra "27" Fed	H&P #416 @ 3439.60ft (25' KB Correction)	MD Reference:
Well:	#4H	Grid	North Reference:
Wellbore:	OH	Minimum Curvature	Survey Calculation Method:
Design:	Plan #1	Midland Database	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)
11,700.00	90.00	359.70	8,890.00	5,450.40	2,838.14	591.62	2,873.94	0.00	464,796.95	716,443.76
11,800.00	90.00	359.70	8,890.00	5,450.40	2,938.14	591.09	2,973.63	0.00	464,896.95	716,443.23
11,900.00	90.00	359.70	8,890.00	5,450.40	3,038.14	590.57	3,073.32	0.00	464,996.95	716,442.71
12,000.00	90.00	359.70	8,890.00	5,450.40	3,138.14	590.05	3,173.01	0.00	465,096.95	716,442.19
12,100.00	90.00	359.70	8,890.00	5,450.40	3,238.14	589.52	3,272.70	0.00	465,196.95	716,441.66
12,200.00	90.00	359.70	8,890.00	5,450.40	3,338.14	589.00	3,372.39	0.00	465,296.95	716,441.14
12,300.00	90.00	359.70	8,890.00	5,450.40	3,438.13	588.48	3,472.08	0.00	465,396.94	716,440.62
12,400.00	90.00	359.70	8,890.00	5,450.40	3,538.13	587.95	3,571.77	0.00	465,496.94	716,440.09
12,500.00	90.00	359.70	8,890.00	5,450.40	3,638.13	587.43	3,671.46	0.00	465,596.94	716,439.57
12,600.00	90.00	359.70	8,890.00	5,450.40	3,738.13	586.90	3,771.15	0.00	465,696.94	716,439.04
12,700.00	90.00	359.70	8,890.00	5,450.40	3,838.13	586.38	3,870.84	0.00	465,796.94	716,438.52
12,800.00	90.00	359.70	8,890.00	5,450.40	3,938.13	585.86	3,970.53	0.00	465,896.94	716,438.00
12,900.00	90.00	359.70	8,890.00	5,450.40	4,038.13	585.33	4,070.22	0.00	465,996.94	716,437.47
13,000.00	90.00	359.70	8,890.00	5,450.40	4,138.12	584.81	4,169.91	0.00	466,096.93	716,436.95
13,100.00	90.00	359.70	8,890.00	5,450.40	4,238.12	584.29	4,269.60	0.00	466,196.93	716,436.43
13,200.00	90.00	359.70	8,890.00	5,450.40	4,338.12	583.76	4,369.29	0.00	466,296.93	716,435.90
13,300.00	90.00	359.70	8,890.00	5,450.40	4,438.12	583.24	4,468.98	0.00	466,396.93	716,435.38
13,400.00	90.00	359.70	8,890.00	5,450.40	4,538.12	582.72	4,568.67	0.00	466,496.93	716,434.86
13,500.00	90.00	359.70	8,890.00	5,450.40	4,638.12	582.19	4,668.36	0.00	466,596.93	716,434.33
13,600.00	90.00	359.70	8,890.00	5,450.40	4,738.12	581.67	4,768.05	0.00	466,696.93	716,433.81
13,700.00	90.00	359.70	8,890.00	5,450.40	4,838.12	581.15	4,867.74	0.00	466,796.93	716,433.29
13,800.00	90.00	359.70	8,890.00	5,450.40	4,938.11	580.62	4,967.43	0.00	466,896.92	716,432.76
13,900.00	90.00	359.70	8,890.00	5,450.40	5,038.11	580.10	5,067.12	0.00	466,996.92	716,432.24
14,000.00	90.00	359.70	8,890.00	5,450.40	5,138.11	579.57	5,166.81	0.00	467,096.92	716,431.71
14,100.00	90.00	359.70	8,890.00	5,450.40	5,238.11	579.05	5,266.50	0.00	467,196.92	716,431.19
14,200.00	90.00	359.70	8,890.00	5,450.40	5,338.11	578.53	5,366.19	0.00	467,296.92	716,430.67
14,300.00	90.00	359.70	8,890.00	5,450.40	5,438.11	578.00	5,465.88	0.00	467,396.92	716,430.14



Pathfinder
Pathfinder X & Y Planning Report



Company: Devon Energy, Inc.
Project: Eddy County
Site: Aldabra "27" Fed
Well: #4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #4H
H&P #416 @ 3439.60ft (25' KB Correction)
H&P #416 @ 3439.60ft (25' KB Correction)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (")	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec. (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
14,400.00	90.00	359.70	8,890.00	5,450.40	5,538.11	577.48	5,565.57	0.00	467,496.92	716,429.62
14,500.00	90.00	359.70	8,890.00	5,450.40	5,638.10	576.96	5,665.26	0.00	467,596.91	716,429.10
14,600.00	90.00	359.70	8,890.00	5,450.40	5,738.10	576.43	5,764.95	0.00	467,696.91	716,428.57
14,700.00	90.00	359.70	8,890.00	5,450.40	5,838.10	575.91	5,864.64	0.00	467,796.91	716,428.05
14,800.00	90.00	359.70	8,890.00	5,450.40	5,938.10	575.39	5,964.33	0.00	467,896.91	716,427.53
14,900.00	90.00	359.70	8,890.00	5,450.40	6,038.10	574.86	6,064.02	0.00	467,996.91	716,427.00
15,000.00	90.00	359.70	8,890.00	5,450.40	6,138.10	574.34	6,163.71	0.00	468,096.91	716,426.48
15,100.00	90.00	359.70	8,890.00	5,450.40	6,238.10	573.81	6,263.40	0.00	468,196.91	716,425.95
15,200.00	90.00	359.70	8,890.00	5,450.40	6,338.09	573.29	6,363.09	0.00	468,296.90	716,425.43
15,300.00	90.00	359.70	8,890.00	5,450.40	6,438.09	572.77	6,462.78	0.00	468,396.90	716,424.91
15,400.00	90.00	359.70	8,890.00	5,450.40	6,538.09	572.24	6,562.47	0.00	468,496.90	716,424.38
15,500.00	90.00	359.70	8,890.00	5,450.40	6,638.09	571.72	6,662.16	0.00	468,596.90	716,423.86
15,600.00	90.00	359.70	8,890.00	5,450.40	6,738.09	571.20	6,761.85	0.00	468,696.90	716,423.34
15,700.00	90.00	359.70	8,890.00	5,450.40	6,838.09	570.67	6,861.54	0.00	468,796.90	716,422.81
15,800.00	90.00	359.70	8,890.00	5,450.40	6,938.09	570.15	6,961.23	0.00	468,896.90	716,422.29
15,900.00	90.00	359.70	8,890.00	5,450.40	7,038.09	569.63	7,060.91	0.00	468,996.90	716,421.77
16,000.00	90.00	359.70	8,890.00	5,450.40	7,138.08	569.10	7,160.60	0.00	469,096.89	716,421.24
16,100.00	90.00	359.70	8,890.00	5,450.40	7,238.08	568.58	7,260.29	0.00	469,196.89	716,420.72
16,200.00	90.00	359.70	8,890.00	5,450.40	7,338.08	568.06	7,359.98	0.00	469,296.89	716,420.20
16,300.00	90.00	359.70	8,890.00	5,450.40	7,438.08	567.53	7,459.67	0.00	469,396.89	716,419.67
16,400.00	90.00	359.70	8,890.00	5,450.40	7,538.08	567.01	7,559.36	0.00	469,496.89	716,419.15
16,500.00	90.00	359.70	8,890.00	5,450.40	7,638.08	566.48	7,659.05	0.00	469,596.89	716,418.62
16,549.10	90.00	359.70	8,890.00	5,450.40	7,687.18	566.38	7,708.02	0.00	469,645.99	716,418.52

PBHL(A27F#4H)



Pathfinder
Pathfinder X & Y Planning Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #4H
Project:	Eddy County	TVD Reference:	H&P #416 @ 3439.60ft (25' KB Correction)
Site:	Aldabra "27" Fed	MD Reference:	H&P #416 @ 3439.60ft (25' KB Correction)
Well:	#4H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Vert PT(A27F#4H) - plan hits target center - Point	0.00	0.00	8,246.00	-180.00	607.42	461,778.810	716,459.560	32° 16' 5.642 N	103° 46' 0.300 W
Heal TGT(A27F#4H) - plan misses target center by 3.37ft at 9325.28ft MD (8890.00 TVD, 463.45 N, 604.05 E) - Point	0.00	0.00	8,890.00	463.47	607.42	462,422.280	716,459.560	32° 16' 12.010 N	103° 46' 0.261 W
PBHL(A27F#4H) - plan hits target center - Point	0.00	0.00	8,890.00	7,687.18	566.38	469,645.990	716,418.520	32° 17' 23.494 N	103° 46' 0.294 W

Checked By: _____

Approved By: _____

Date: _____

NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

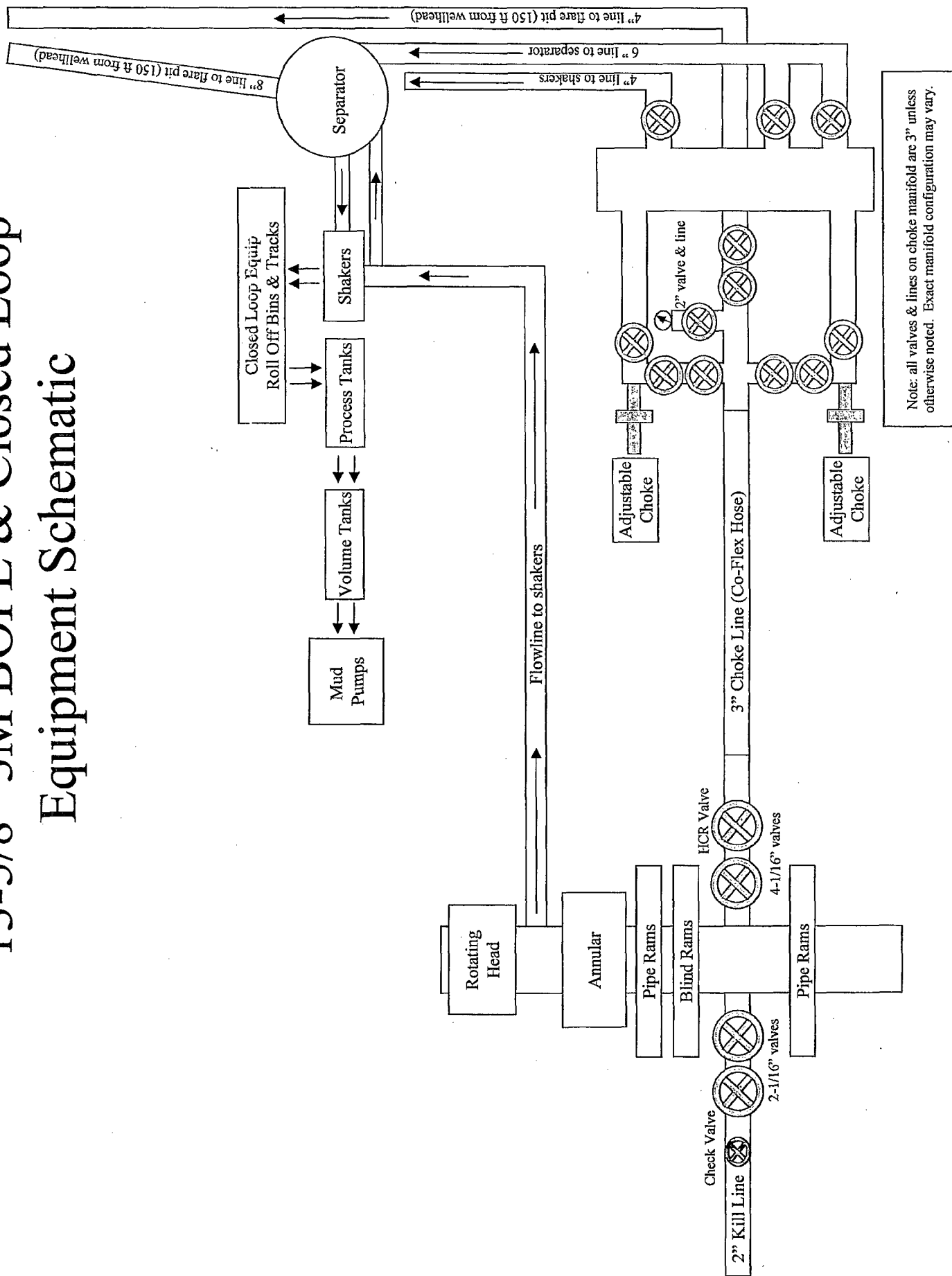
Aldabra 27 Fed Com 4H

Surface Location: 200' FSL & 1700' FWL, Unit N, Sec 27 T23S R31E, Eddy, NM

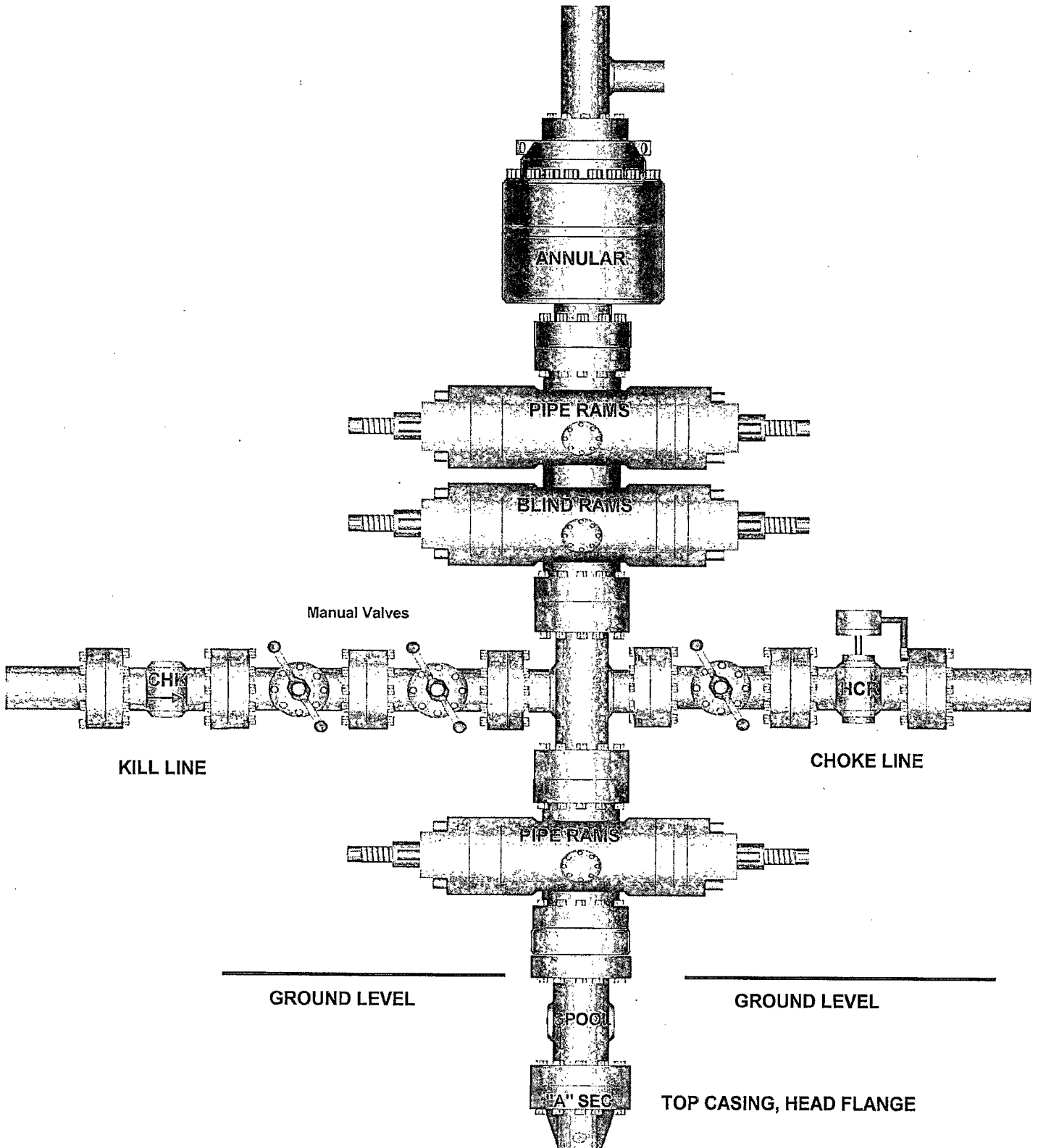
Bottom Hole Location: 2600' FSL & 2310' FWL, Unit K, Sec 22 T23S R31E, Eddy, NM

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" 3M BOPE & Closed Loop Equipment Schematic



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





Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

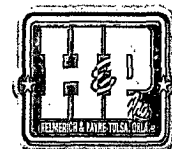
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

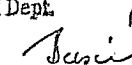
ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

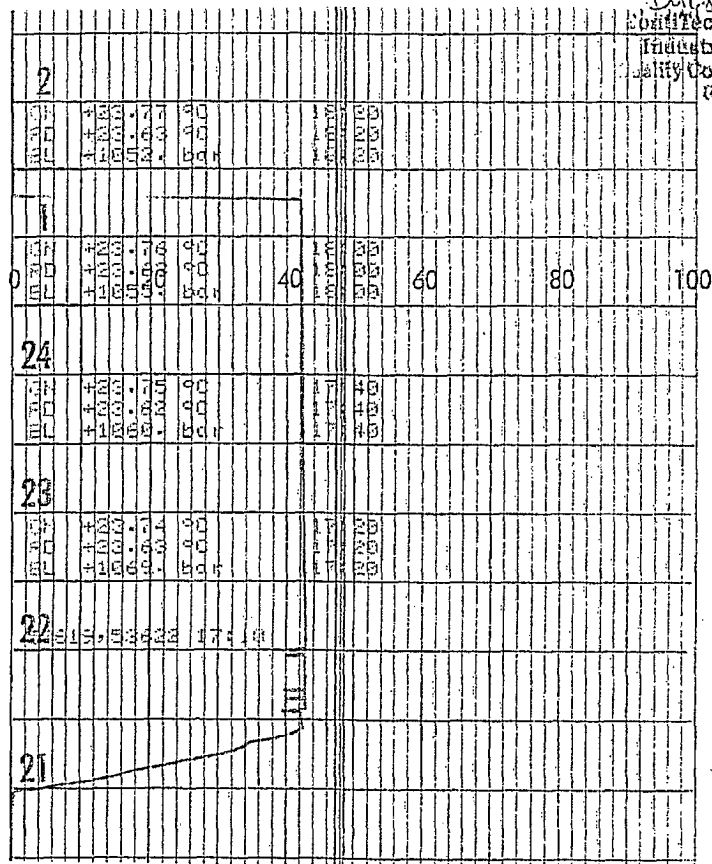
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1713	
PURCHASER: ContiTech Beattie Co.				P.O. N°: 002808	
CONTITECH ORDER N°: 426127		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 53622		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with 4 1/16" Flange end		5503 2029		AISI 4130 AISI 4130	
				Heat N° N1590P 27566	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate: "B"	
All metal parts are flawless				Hose conform to NACE MR 01-75	
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date: 25. August. 2008		Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept.  	

HARTMANN &



Conf. Tech Rubber
Industrial Kft.
Quality Control Dept.
(2)

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator DEVON ENERGY PROD CO LP OGRID # 6137
 38560 Well Name & # ALDABRAA 27 FED COM # 4 H Surface Type (F) (S) (P)
 Location: UL 23, Sect 27, Township 23 s, RNG 31 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 23 / 31 / 31 C101 reviewed 23 / 31 / 31

B. 1. Check mark, Information is OK on Forms:

OGRID X BONDING FED PROP CODE X WELL # 4 SIGNATURE 31/31/11

2. Inactive Well list as of: 31/31/11 # wells 1479 # Inactive wells 3

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator 31/31/11, to Santa Fe 31/31/11

3. Additional Bonding as of: 31/31/11

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator 31/31/11, To Santa Fe 31/31/11

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator 31/31/11, To Santa Fe 31/31/11

C. C102 YES 31/31/11, NO 31/31/11, Signature 31/31/11

1. Pool WILDCAT; BONE SPRING Code 96403

a. Dedicated acreage 240, What Units 22:KN 27 CFFN

b. SUR. Location Standard 31/31/11: Non-Standard Location X

c. Well shares acres: Yes X, No 31/31/11, # of wells 31/31/11 plus this well # 31/31/11

2. 2nd. Operator in same acreage, Yes 31/31/11, No X

Agreement Letter 31/31/11, Disagreement letter 31/31/11

3. Intent to Directional Drill Yes X, No 31/31/11

a. Dedicated acreage 240, What Units 22:KN 27 CFFN

b. Bottomhole Location Standard 31/31/11, Non-Standard Bottomhole X

4. Downhole Commingle: Yes 31/31/11, No X

a. Pool #2 31/31/11, Code 31/31/11, Acres 31/31/11

Pool #3 31/31/11, Code 31/31/11, Acres 31/31/11

Pool #4 31/31/11, Code 31/31/11, Acres 31/31/11

5. POTASH Area Yes 31/31/11, No FED

D. Blowout Preventer Yes X, No 31/31/11

E. H2S Yes X, No Part of FED

F. C144 Pit Registration Yes 31/31/11, No need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes X, No 31/31/11, NSL # 31/31/11

2. Non-Standard Proration: Yes 31/31/11, No X, NSP # 31/31/11

3. Simultaneous Dedication: Yes 31/31/11, No X, SD # 31/31/11

Number of wells 31/31/11 Plus # 31/31/11

4. Injection order Yes 31/31/11, No X; PMX # 31/31/11 or WFX # 31/31/11

5. SWD order Yes 31/31/11, NO X; SWD # 31/31/11

6. DHC from SF 31/31/11; DHC-HOB 31/31/11; Holding 31/31/11

7. OCD Approval Date 31/31/11

API #30-015- 38628

8. Reviewers 31/31/11