

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

APPLICATION FOR PERMIT TO DRILL OR REENTER

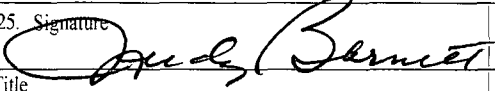
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-094845	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name 705/12/2003	
2. Name of Operator Devon Energy Production, Company L. P.		7. If Unit or CA Agreement, Name and No.	
3a. Address 333 W. Sheridan Oklahoma City, OK 73102		8. Lease Name and Well No. Agasti 27 Federal 1H <39649>	
3b. Phone No. (include area code) 405-235-3611		9. API Well No. 30-015-40999	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface M 440 FSL & 100 FWL At proposed prod. zone A 990 FNL & 340 FEL Sec 27		10. Field and Pool, or Exploratory Williams Sink, Bone Spring <96746>	
14. Distance in miles and direction from nearest town or post office* 15 miles south by southwest of Maljamar, NM		11. Sec., T. R. M. or Blk. and Survey or Area SEC 22 T19S R31E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 20'		12. County or Parish Eddy	
16. No. of acres in lease 320 Ac		13. State NM	
17. Spacing Unit dedicated to this well 160			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map		19. Proposed Depth 9130' TVD 14,009' MD 9164 13,923 - directional plan	
20. BLM/BIA Bond No. on file CO-1104;NMB 000801			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3519' GL		22. Approximate date work will start* 23. Estimated duration 45 days	

24. Attachments

To be pad drilled with the Agasti 27 Federal 2H

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) Judy A. Barnett	Date 09/11/2012
Title Regulatory Specialist		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date JAN 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)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached.

RECEIVED

JAN 16 2013

NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87416
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-40999	² Pool Code 96746	³ Pool Name Hackberry	⁴ Property Code 39649	⁵ Property Name AGASTI 27 FED	⁶ Well Number 1H
⁷ UGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			⁹ Elevation 3519.7

¹⁰ Surface Location

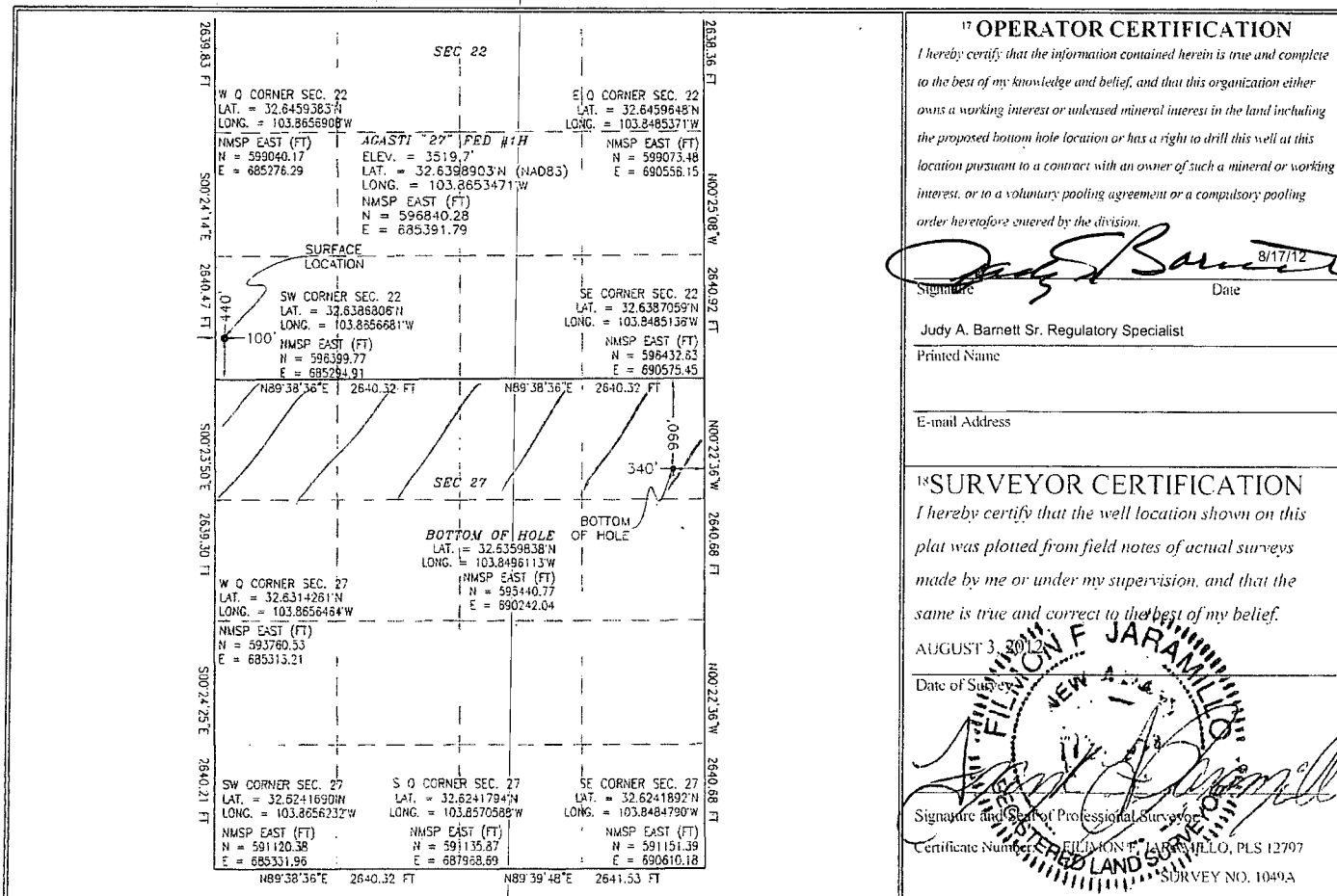
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	22	19 S	31 E		440	SOUTH	100	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	27	19 S	31 E		990	NORTH	340	EAST	EDDY

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. 14 12823
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



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Phone: (575) 393-6161 Fax: (575) 393-0720
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311 S. First St., Artesia, NM 88210
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

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⁴ Property Code	⁵ Property Name AGASTI 27 FED	⁶ Well Number 1H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3519.7

¹⁰ Surface Location

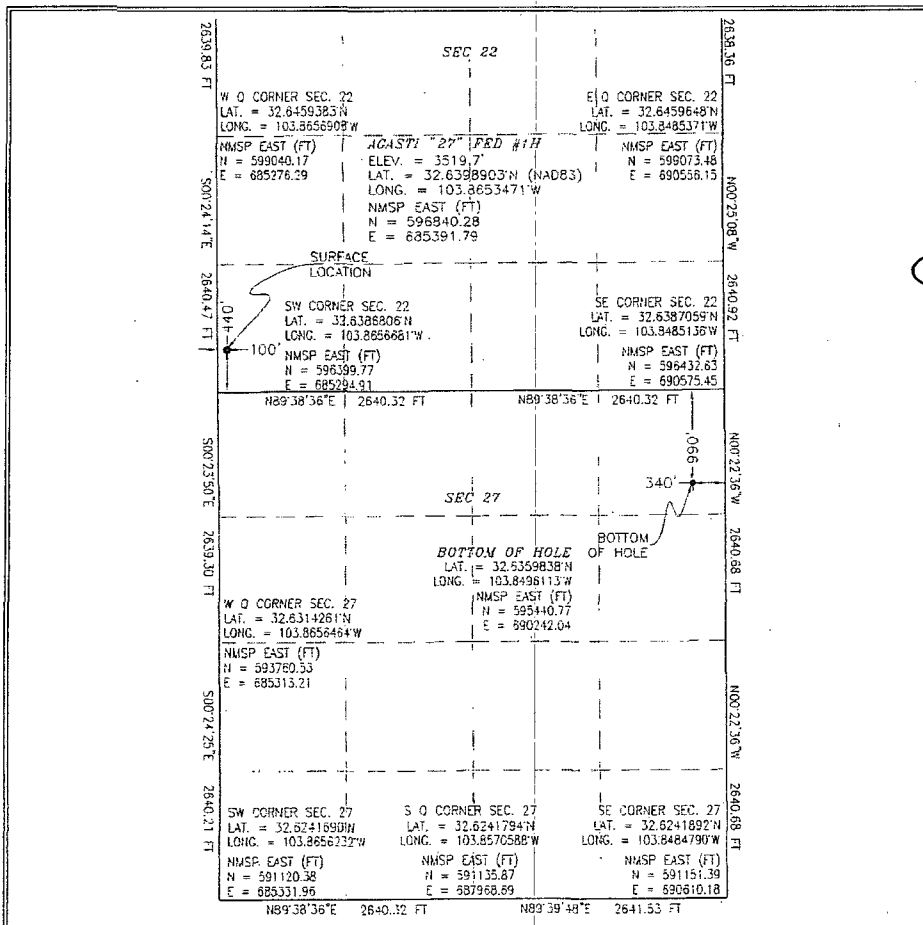
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--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature: <i>Judy A. Barnett Sr.</i> Date: 8/17/12</p> <p>Judy A. Barnett Sr. Regulatory Specialist</p> <p>Printed Name</p> <p>E-mail Address</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>AUGUST 3, 2012</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor: <i>FILMON F. JARAMILLO</i></p> <p>Certificate Number: FILMON F. JARAMILLO, PLS 12797</p> <p>SURVEY NO. 1049A</p>
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Certification

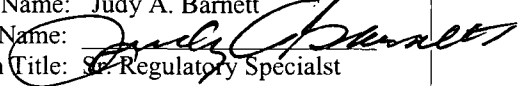
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this 4th day of September, 2012.

Printed Name: Judy A. Barnett

Signed Name:

Position Title:  Regulatory Specialist

Address: 20 North Broadway, OKC OK 73102

Telephone: (405)-228-8699

Field Representative (if not above signatory):

Address (if different from above):

Telephone (if different from above):

DRILLING PROGRAM

Devon Energy Production Company, L.P.

Agasti 27 Federal 1H

Surface Location: 440' FSL & 100' FWL, Unit M, Sec 22 T19S R31E, Eddy, NM

Bottom Hole Location: 990' FNL & 340' FEL, Unit A, Sec 27 T19S R31E, Eddy, NM

1. **Geologic Name of Surface Formation**

2. Alluvium

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

a. Fresh Water	140'	FW
b. Rustler	535'	
c. Salado	785'	
d. Tansil Dolomite	2145'	
e. Yates	2250'	
f. Seven Rivers	2460'	
g. Capitan	2585'	
h. B/Capitan	4065'	
i. Delaware	4370'	Oil
j. Bone Spring	6905'	Oil
k. 1 st Bone Spring Ss	8195'	Oil
l. 2 nd Bone Spring Lime	8495'	Oil
m. 2 nd Bone Spring Ss	8840'	Oil
Total Depth	13,823'	

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>
26"	0-575' <i>660'</i>	20"	0-575'	94#	BTC	J/K-55
17 1/2"	0-2450'	13 3/8"	0-2450' <i>2540'</i>	68#	BTC	J/K-55
12 1/4"	2450-4150'	9 5/8"	0-4150'	40#	LTC	J-55
8 3/4"	4150-8500'	5 1/2"	0-8500'	17#	LTC	HCP-110
8 3/4"	8500-13,823'	5 1/2"	8500-13,823'	17#	BTC	HCP-110

All casing is new and API approved.

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
20"	1.93	7.84	25.94
13 3/8"	1.70	3.01	6.84
9 5/8"	1.19	1.83	3.13
5 1/2"	2.16	2.67	1.87
5 1/2"	2.03	2.51	6.28

The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. The pore pressure is estimated to be **10.0 ppg** for this calculation. This results in a collapse design factor of **1.19** for **9.625" 40# J-55 LT&C** casing at a depth of **4,150'**. While running the intermediate casing, the casing will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

Cement Program: (all cement volumes based on at least 25% excess)

4.

- 20" Surface **Lead:** 1200 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81% Fresh Water, 13.5 ppg, **Yield:** 1.73 cf/sk **TOC @ surface.**
Tail: 300 C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 56% FW 14.8 ppg. Yld 1.35 cf/sx.
- 13 3/8" Intermediate **Lead:** 1800 sacks (60:40) Poz:Class C + 5% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 89% Fresh Water, 12.6 ppg, **Yield:** 1.73 cf/sk **TOC @ surface.**
Tail: 450 sacks (60:40) Poz:Class C + 5% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 66% Fresh Water, 13.8 ppg **Yield:** 1.38 cf/sk
- 9 5/8" Intermediate
- 1st Stage**
Lead: 600 sacks (60:40) Poz :Class C + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 90% Fresh Water, 12.6 ppg **Yield:** 1.73 cf/sk
Tail: 300 sacks (60:40) Poz:Class C + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 66% Water, 13.8 ppg **Yield:** 1.38 cf/sk. **DV TOOL & ECP @ ~2650' (~50' above reef)**
- 2nd Stage**
Lead: 700 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 90% Fresh Water, 12.6 ppg **Yield:** 1.73 cf/sk **TOC @ surface**
Tail: 200 sacks (60:40)Poz Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 66% Water, 13.8 ppg **Yield:** 1.38 cf/sk.
- 5/12" Production
- 1st Stage**
Lead: 880 sacks (35:65) Poz :Class H + 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: 1200 sacks (50:50) Poz:Class H + 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 @ ~5,000'**
- 2nd Stage**
Lead: 400 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 **TOC @ 2,400'**
Tail: 200 sacks (60:40) Poz:Class C + 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

TOC for All Strings:

Surface: 0 ft
Intermediate 1: 0 ft
Intermediate 2: 0 ft
Production: 2300-2400' ~ 200' above reef top

See COA

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

Pressure Control Equipment:

The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 2M system prior to drilling out the casing shoe.

The BOP system used to drill the 12-1/4" and 8-3/4" holes will consist of a 13-5/8" 3M 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 casing shoe.

The pipe rams will be operated and checked as per Onshore Order No 2. 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.

5. **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0-575' 660'	8.4-9.0	30-34	NC	FW
575-2450' 2550'	9.8-10.0	28-32	NC	Brine
2450-4150'	8.4-9.0	28-30	NC	FW
4150-13,823'	8.6-9.0	28-32	NC-12	FW

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

6. **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.

7. **Logging, Coring, and Testing Program:**

- 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 Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper.
 - 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.

8. **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 3800 psi and Estimated BHT 140°. No H2S is anticipated to be encountered.

9. **Anticipated Starting Date and Duration of Operations:**

- 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 (NAD83)

Agasti "27" Fed

#1H

OH

Plan: Plan #3

PathfinderX & Y Report

24 August, 2012



A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7 usft (H&P 300)
Site:	Agasti "27" Fed	MD Reference:	KB = 26 @ 3545.7 usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM;5000:1;Single User Db

Project:	Eddy County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Agasti "27" Fed		
Site Position:		Northing:	595,061.990 usft
From:	Map	Easting:	685,609.120 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32.635000
		Longitude:	-103.864667
		Grid Convergence:	0.25 °

Well:	#1H		
Well Position	+N/-S	0.0 usft	Northing: 596,840.280 usft
	+E/-W	0.0 usft	Easting: 685,391.790 usft
Position Uncertainty	0.0 usft		Wellhead Elevation: usft
			Latitude: 32.639890
			Longitude: -103.865347
			Ground Level: 3,519.7 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	5/29/2012	(°) 7.63	(°) 60.52	(nT) 48,778

Design:	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	106.10

Survey Tool Program	Date: 8/24/2012			
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.0	13,822.5	Plan #3 (OH)	Pathfinder	Pathfinder MWD



Pathfinder
PathfinderX & Y Report



A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM:5000:1:Single User:Db

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V-Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,545.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
100.0	0.00	0.00	100.0	-3,445.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
200.0	0.00	0.00	200.0	-3,345.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
300.0	0.00	0.00	300.0	-3,245.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
400.0	0.00	0.00	400.0	-3,145.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
500.0	0.00	0.00	500.0	-3,045.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
600.0	0.00	0.00	600.0	-2,945.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
Rustler										
700.0	0.00	0.00	700.0	-2,845.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
800.0	0.00	0.00	800.0	-2,745.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
840.0	0.00	0.00	840.0	-2,705.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
Salado										
900.0	0.00	0.00	900.0	-2,645.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,000.0	0.00	0.00	1,000.0	-2,545.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,100.0	0.00	0.00	1,100.0	-2,445.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,200.0	0.00	0.00	1,200.0	-2,345.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,300.0	0.00	0.00	1,300.0	-2,245.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,400.0	0.00	0.00	1,400.0	-2,145.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,500.0	0.00	0.00	1,500.0	-2,045.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,600.0	0.00	0.00	1,600.0	-1,945.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,700.0	0.00	0.00	1,700.0	-1,845.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,800.0	0.00	0.00	1,800.0	-1,745.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
1,900.0	0.00	0.00	1,900.0	-1,645.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
2,000.0	0.00	0.00	2,000.0	-1,545.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
2,100.0	0.00	0.00	2,100.0	-1,445.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
2,130.0	0.00	0.00	2,130.0	-1,415.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79
Tansil Dolomite										
2,200.0	0.00	0.00	2,200.0	-1,345.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed.	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
2,235.0	0.00	0.00	2,235.0	-1,310.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
Yates											
2,300.0	0.00	0.00	2,300.0	-1,245.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,400.0	0.00	0.00	2,400.0	-1,145.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,440.0	0.00	0.00	2,440.0	-1,105.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
Seven Rivers											
2,500.0	0.00	0.00	2,500.0	-1,045.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,585.0	0.00	0.00	2,585.0	-960.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
Capitan											
2,600.0	0.00	0.00	2,600.0	-945.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,700.0	0.00	0.00	2,700.0	-845.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,800.0	0.00	0.00	2,800.0	-745.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
2,900.0	0.00	0.00	2,900.0	-645.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,000.0	0.00	0.00	3,000.0	-545.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,100.0	0.00	0.00	3,100.0	-445.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,200.0	0.00	0.00	3,200.0	-345.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,300.0	0.00	0.00	3,300.0	-245.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,400.0	0.00	0.00	3,400.0	-145.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,500.0	0.00	0.00	3,500.0	-45.7	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,600.0	0.00	0.00	3,600.0	54.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,700.0	0.00	0.00	3,700.0	154.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,800.0	0.00	0.00	3,800.0	254.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
3,900.0	0.00	0.00	3,900.0	354.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,000.0	0.00	0.00	4,000.0	454.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
B/Capitan											
4,100.0	0.00	0.00	4,100.0	554.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,200.0	0.00	0.00	4,200.0	654.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,300.0	0.00	0.00	4,300.0	754.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1; Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,305.0	0.00	0.00	4,305.0	759.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
Delaware											
4,400.0	0.00	0.00	4,400.0	854.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,500.0	0.00	0.00	4,500.0	954.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,600.0	0.00	0.00	4,600.0	1,054.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,700.0	0.00	0.00	4,700.0	1,154.3	0.0	0.0	0.0	0.00	596,840.28	685,391.79	
4,800.0	2.00	177.56	4,800.0	1,254.3	-1.7	0.1	0.6	2.00	596,838.54	685,391.86	
4,900.0	4.00	177.56	4,899.8	1,354.1	-7.0	0.3	2.2	2.00	596,833.31	685,392.09	
5,000.0	6.00	177.56	4,999.5	1,453.8	-15.7	0.7	5.0	2.00	596,824.60	685,392.46	
5,100.0	8.00	177.56	5,098.7	1,553.0	-27.9	1.2	8.9	2.00	596,812.43	685,392.98	
5,200.0	10.00	177.56	5,197.5	1,651.8	-43.5	1.9	13.8	2.00	596,796.80	685,393.64	
5,300.0	12.00	177.56	5,295.6	1,749.9	-62.5	2.7	19.9	2.00	596,777.73	685,394.45	
5,400.0	14.00	177.56	5,393.1	1,847.4	-85.0	3.6	27.1	2.00	596,755.26	685,395.41	
5,500.0	16.00	177.56	5,489.6	1,943.9	-110.9	4.7	35.3	2.00	596,729.40	685,396.51	
5,600.0	18.00	177.56	5,585.3	2,039.6	-140.1	6.0	44.6	2.00	596,700.19	685,397.76	
5,651.4	19.03	177.56	5,634.0	2,088.3	-156.4	6.7	49.8	2.00	596,683.89	685,398.45	
5,700.0	19.03	177.56	5,680.0	2,134.3	-172.2	7.3	54.8	0.00	596,668.06	685,399.13	
5,800.0	19.03	177.56	5,774.5	2,228.8	-204.8	8.7	65.2	0.00	596,635.48	685,400.52	
5,900.0	19.03	177.56	5,869.0	2,323.3	-237.4	10.1	75.5	0.00	596,602.91	685,401.90	
6,000.0	19.03	177.56	5,963.6	2,417.9	-269.9	11.5	85.9	0.00	596,570.34	685,403.29	
6,100.0	19.03	177.56	6,058.1	2,512.4	-302.5	12.9	96.3	0.00	596,537.76	685,404.68	
6,200.0	19.03	177.56	6,152.6	2,606.9	-335.1	14.3	106.6	0.00	596,505.19	685,406.07	
6,300.0	19.03	177.56	6,247.2	2,701.5	-367.7	15.7	117.0	0.00	596,472.62	685,407.46	
6,400.0	19.03	177.56	6,341.7	2,796.0	-400.2	17.1	127.3	0.00	596,440.04	685,408.84	
6,500.0	19.03	177.56	6,436.2	2,890.5	-432.8	18.4	137.7	0.00	596,407.47	685,410.23	
6,600.0	19.03	177.56	6,530.8	2,985.1	-465.4	19.8	148.1	0.00	596,374.90	685,411.62	
6,700.0	19.03	177.56	6,625.3	3,079.6	-498.0	21.2	158.4	0.00	596,342.32	685,413.01	

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed.	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
6,800.0	19.03	177.56	6,719.8	3,174.1	-530.5	22.6	168.8	0.00	596,309.75	685,414.40	
6,900.0	19.03	177.56	6,814.4	3,268.7	-563.1	24.0	179.2	0.00	596,277.18	685,415.78	
6,932.4	19.03	177.56	6,845.0	3,299.3	-573.7	24.4	182.5	0.00	596,266.63	685,416.23	
Bone Spring											
7,000.0	19.03	177.56	6,908.9	3,363.2	-595.7	25.4	189.5	0.00	596,244.60	685,417.17	
7,100.0	19.03	177.56	7,003.5	3,457.8	-628.3	26.8	199.9	0.00	596,212.03	685,418.56	
7,200.0	19.03	177.56	7,098.0	3,552.3	-660.8	28.2	210.3	0.00	596,179.46	685,419.95	
7,300.0	19.03	177.56	7,192.5	3,646.8	-693.4	29.5	220.6	0.00	596,146.88	685,421.33	
7,400.0	19.03	177.56	7,287.1	3,741.4	-726.0	30.9	231.0	0.00	596,114.31	685,422.72	
7,500.0	19.03	177.56	7,381.6	3,835.9	-758.5	32.3	241.3	0.00	596,081.73	685,424.11	
7,600.0	19.03	177.56	7,476.1	3,930.4	-791.1	33.7	251.7	0.00	596,049.16	685,425.50	
7,700.0	19.03	177.56	7,570.7	4,025.0	-823.7	35.1	262.1	0.00	596,016.59	685,426.89	
7,800.0	19.03	177.56	7,665.2	4,119.5	-856.3	36.5	272.4	0.00	595,984.01	685,428.27	
7,900.0	19.03	177.56	7,759.7	4,214.0	-888.8	37.9	282.8	0.00	595,951.44	685,429.66	
8,000.0	19.03	177.56	7,854.3	4,308.6	-921.4	39.3	293.2	0.00	595,918.87	685,431.05	
8,100.0	19.03	177.56	7,948.8	4,403.1	-954.0	40.6	303.5	0.00	595,886.29	685,432.44	
8,200.0	19.03	177.56	8,043.4	4,497.7	-986.6	42.0	313.9	0.00	595,853.72	685,433.83	
8,270.5	19.03	177.56	8,110.0	4,564.3	-1,009.5	43.0	321.2	0.00	595,830.76	685,434.80	
1st Bone Spring Ss											
8,300.0	19.03	177.56	8,137.9	4,592.2	-1,019.1	43.4	324.3	0.00	595,821.15	685,435.21	
8,400.0	19.03	177.56	8,232.4	4,686.7	-1,051.7	44.8	334.6	0.00	595,788.57	685,436.60	
8,500.0	19.03	177.56	8,327.0	4,781.3	-1,084.3	46.2	345.0	0.00	595,756.00	685,437.99	
8,587.8	19.03	177.56	8,410.0	4,864.3	-1,112.9	47.4	354.1	0.00	595,727.39	685,439.21	
2nd Bone Spring Lime											
8,600.0	19.03	177.56	8,421.5	4,875.8	-1,116.9	47.6	355.4	0.00	595,723.43	685,439.38	
8,700.1	19.03	177.56	8,516.1	4,970.4	-1,149.5	49.0	365.7	0.00	595,690.83	685,440.77	
8,750.0	19.87	162.74	8,563.2	5,017.5	-1,165.7	51.8	373.0	10.00	595,674.59	685,443.63	
8,800.0	21.81	149.75	8,610.0	5,064.3	-1,181.8	59.0	384.4	10.00	595,658.44	685,450.84	



Pathfinder
PathfinderX & Y Report

PATHFINDER
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Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM:5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,850.0	24.59	139.16	8,655.9	5,110.2	-1,197.7	70.5	399.8	10.00	595,642.54	685,462.32	
8,900.0	27.95	130.79	8,700.8	5,155.1	-1,213.3	86.2	419.2	10.00	595,627.00	685,478.01	
8,950.0	31.73	124.18	8,744.2	5,198.5	-1,228.3	106.0	442.4	10.00	595,611.95	685,497.77	
9,000.0	35.77	118.88	8,785.7	5,240.0	-1,242.8	129.7	469.1	10.00	595,597.50	685,521.45	
9,050.0	40.01	114.55	8,825.2	5,279.5	-1,256.5	157.1	499.3	10.00	595,583.75	685,548.89	
9,083.1	42.89	112.09	8,850.0	5,304.3	-1,265.2	177.2	521.0	10.00	595,575.09	685,569.01	
2nd Bone Spring Ss											
9,100.0	44.38	110.93	8,862.2	5,316.5	-1,269.5	188.1	532.6	10.00	595,570.82	685,579.86	
9,150.0	48.85	107.84	8,896.6	5,350.9	-1,281.5	222.3	568.9	10.00	595,558.80	685,614.13	
9,200.0	53.39	105.15	8,928.0	5,382.3	-1,292.5	259.6	607.8	10.00	595,547.78	685,651.44	
9,203.5	53.70	104.98	8,930.0	5,384.3	-1,293.2	262.3	610.6	10.00	595,547.06	685,654.12	
2nd Bone Spring Upr Ss											
9,250.0	57.98	102.76	8,956.1	5,410.4	-1,302.4	299.7	649.0	10.00	595,537.85	685,691.51	
9,298.0	62.43	100.68	8,980.0	5,434.3	-1,310.9	340.5	690.6	10.00	595,529.40	685,732.32	
2nd Bone Spring Upr Ss Base											
9,300.0	62.62	100.60	8,980.9	5,435.2	-1,311.2	342.2	692.3	10.00	595,529.08	685,734.03	
9,320.4	64.52	99.77	8,990.0	5,444.3	-1,314.4	360.3	710.5	10.00	595,525.84	685,752.04	
2nd Bone Spring Middle Ss											
9,350.0	67.28	98.61	9,002.1	5,456.4	-1,318.7	386.9	737.3	10.00	595,521.53	685,778.68	
9,400.0	71.97	96.76	9,019.5	5,473.8	-1,325.0	433.3	783.7	10.00	595,515.28	685,825.11	
9,450.0	76.68	95.00	9,033.0	5,487.3	-1,329.9	481.2	831.0	10.00	595,510.36	685,872.99	
9,500.0	81.39	93.31	9,042.5	5,496.8	-1,333.5	530.1	879.0	10.00	595,506.81	685,921.93	
9,550.0	86.12	91.66	9,047.9	5,502.2	-1,335.6	579.8	927.3	10.00	595,504.66	685,971.57	
9,574.7	88.45	90.85	9,049.1	5,503.4	-1,336.2	604.4	951.2	10.00	595,504.12	685,996.21	
EOC (Agasti 27 #1H)											
9,600.0	88.45	90.85	9,049.8	5,504.1	-1,336.5	629.7	975.6	0.00	595,503.74	686,021.52	
9,700.0	88.45	90.85	9,052.5	5,506.8	-1,338.0	729.7	1,072.0	0.00	595,502.25	686,121.47	
9,800.0	88.45	90.85	9,055.2	5,509.5	-1,339.5	829.6	1,168.5	0.00	595,500.76	686,221.43	



Pathfinder
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Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti #27 Fed.	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V-Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
9,900.0	88.45	90.85	9,057.9	5,512.2	-1,341.0	929.6	1,264.9	0.00	595,499.27	686,321.38	
10,000.0	88.45	90.85	9,060.6	5,514.9	-1,342.5	1,029.5	1,361.4	0.00	595,497.77	686,421.33	
10,100.0	88.45	90.85	9,063.3	5,517.6	-1,344.0	1,129.5	1,457.8	0.00	595,496.28	686,521.28	
10,162.0	88.45	90.85	9,065.0	5,519.3	-1,344.9	1,191.5	1,517.6	0.00	595,495.36	686,583.24	
2nd Bone Spring Middle Ss Base											
10,200.0	88.45	90.85	9,066.0	5,520.3	-1,345.5	1,229.4	1,554.3	0.00	595,494.79	686,621.23	
10,300.0	88.45	90.85	9,068.7	5,523.0	-1,347.0	1,329.4	1,650.7	0.00	595,493.30	686,721.19	
10,400.0	88.45	90.85	9,071.4	5,525.7	-1,348.5	1,429.3	1,747.2	0.00	595,491.81	686,821.14	
10,500.0	88.45	90.85	9,074.2	5,528.5	-1,350.0	1,529.3	1,843.6	0.00	595,490.32	686,921.09	
10,600.0	88.45	90.85	9,076.9	5,531.2	-1,351.5	1,629.3	1,940.1	0.00	595,488.83	687,021.04	
10,700.0	88.45	90.85	9,079.6	5,533.9	-1,352.9	1,729.2	2,036.5	0.00	595,487.34	687,121.00	
10,800.0	88.45	90.85	9,082.3	5,536.6	-1,354.4	1,829.2	2,133.0	0.00	595,485.84	687,220.95	
10,900.0	88.45	90.85	9,085.0	5,539.3	-1,355.9	1,929.1	2,229.4	0.00	595,484.35	687,320.90	
11,000.0	88.45	90.85	9,087.7	5,542.0	-1,357.4	2,029.1	2,325.8	0.00	595,482.86	687,420.85	
11,100.0	88.45	90.85	9,090.4	5,544.7	-1,358.9	2,129.0	2,422.3	0.00	595,481.37	687,520.80	
11,200.0	88.45	90.85	9,093.1	5,547.4	-1,360.4	2,229.0	2,518.7	0.00	595,479.88	687,620.76	
11,300.0	88.45	90.85	9,095.8	5,550.1	-1,361.9	2,328.9	2,615.2	0.00	595,478.39	687,720.71	
11,400.0	88.45	90.85	9,098.5	5,552.8	-1,363.4	2,428.9	2,711.6	0.00	595,476.90	687,820.66	
11,500.0	88.45	90.85	9,101.2	5,555.5	-1,364.9	2,528.8	2,808.1	0.00	595,475.41	687,920.61	
11,600.0	88.45	90.85	9,103.9	5,558.2	-1,366.4	2,628.8	2,904.5	0.00	595,473.91	688,020.57	
11,700.0	88.45	90.85	9,106.6	5,560.9	-1,367.9	2,728.7	3,001.0	0.00	595,472.42	688,120.52	
11,800.0	88.45	90.85	9,109.3	5,563.6	-1,369.3	2,828.7	3,097.4	0.00	595,470.93	688,220.47	
11,900.0	88.45	90.85	9,112.1	5,566.4	-1,370.8	2,928.6	3,193.9	0.00	595,469.44	688,320.42	
12,000.0	88.45	90.85	9,114.8	5,569.1	-1,372.3	3,028.6	3,290.3	0.00	595,467.95	688,420.37	
12,100.0	88.45	90.85	9,117.5	5,571.8	-1,373.8	3,128.5	3,386.8	0.00	595,466.46	688,520.33	
12,200.0	88.45	90.85	9,120.2	5,574.5	-1,375.3	3,228.5	3,483.2	0.00	595,464.97	688,620.28	
12,300.0	88.45	90.85	9,122.9	5,577.2	-1,376.8	3,328.4	3,579.7	0.00	595,463.48	688,720.23	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed.	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM: 5000.1; Single User: Db

Planned Survey:											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,400.0	88.45	90.85	9,125.6	5,579.9	-1,378.3	3,428.4	3,676.1	0.00	595,461.98	688,820.18	
12,500.0	88.45	90.85	9,128.3	5,582.6	-1,379.8	3,528.3	3,772.6	0.00	595,460.49	688,920.14	
12,600.0	88.45	90.85	9,131.0	5,585.3	-1,381.3	3,628.3	3,869.0	0.00	595,459.00	689,020.09	
12,700.0	88.45	90.85	9,133.7	5,588.0	-1,382.8	3,728.2	3,965.5	0.00	595,457.51	689,120.04	
12,800.0	88.45	90.85	9,136.4	5,590.7	-1,384.3	3,828.2	4,061.9	0.00	595,456.02	689,219.99	
12,900.0	88.45	90.85	9,139.1	5,593.4	-1,385.8	3,928.2	4,158.4	0.00	595,454.53	689,319.94	
13,000.0	88.45	90.85	9,141.8	5,596.1	-1,387.2	4,028.1	4,254.8	0.00	595,453.04	689,419.90	
13,100.0	88.45	90.85	9,144.5	5,598.8	-1,388.7	4,128.1	4,351.3	0.00	595,451.54	689,519.85	
13,200.0	88.45	90.85	9,147.2	5,601.5	-1,390.2	4,228.0	4,447.7	0.00	595,450.05	689,619.80	
13,300.0	88.45	90.85	9,150.0	5,604.3	-1,391.7	4,328.0	4,544.1	0.00	595,448.56	689,719.75	
13,400.0	88.45	90.85	9,152.7	5,607.0	-1,393.2	4,427.9	4,640.6	0.00	595,447.07	689,819.71	
13,500.0	88.45	90.85	9,155.4	5,609.7	-1,394.7	4,527.9	4,737.0	0.00	595,445.58	689,919.66	
13,600.0	88.45	90.85	9,158.1	5,612.4	-1,396.2	4,627.8	4,833.5	0.00	595,444.09	690,019.61	
13,700.0	88.45	90.85	9,160.8	5,615.1	-1,397.7	4,727.8	4,929.9	0.00	595,442.60	690,119.56	
13,800.0	88.45	90.85	9,163.5	5,617.8	-1,399.2	4,827.7	5,026.4	0.00	595,441.11	690,219.51	
13,822.5	88.45	90.85	9,164.1	5,618.4	-1,399.5	4,850.3	5,048.1	0.00	595,440.77	690,242.04	
PBHL (Agasti 27 #1H)											

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Site:	Agasti "27" Fed	MD Reference:	KB = 26 @ 3545.7usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000:1 Single User Db

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,587.8	8,410.0	2nd Bone Spring Lime			
9,083.1	8,850.0	2nd Bone Spring Ss			
9,298.0	8,980.0	2nd Bone Spring Upr Ss Base			
2,440.0	2,440.0	Seven Rivers			
4,000.0	4,000.0	B/Capitan			
2,130.0	2,130.0	Tansil Dolomite			
10,162.0	9,065.0	2nd Bone Spring Middle Ss Base			
9,203.5	8,930.0	2nd Bone Spring Upr Ss			
6,932.4	6,845.0	Bone Spring			
600.0	600.0	Rustler			
2,235.0	2,235.0	Yates			
8,270.5	8,110.0	1st Bone Spring Ss			
9,320.4	8,990.0	2nd Bone Spring Middle Ss			
4,305.0	4,305.0	Delaware			
840.0	840.0	Salado			
2,585.0	2,585.0	Capitan			

Checked By: _____ Approved By: _____ Date: _____

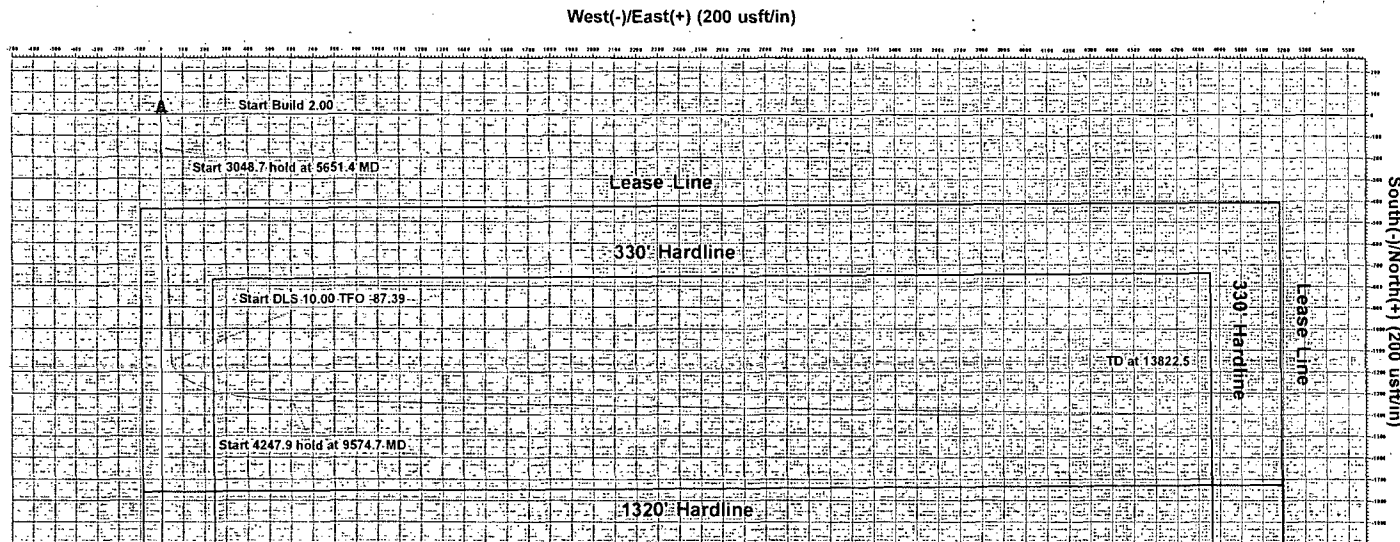
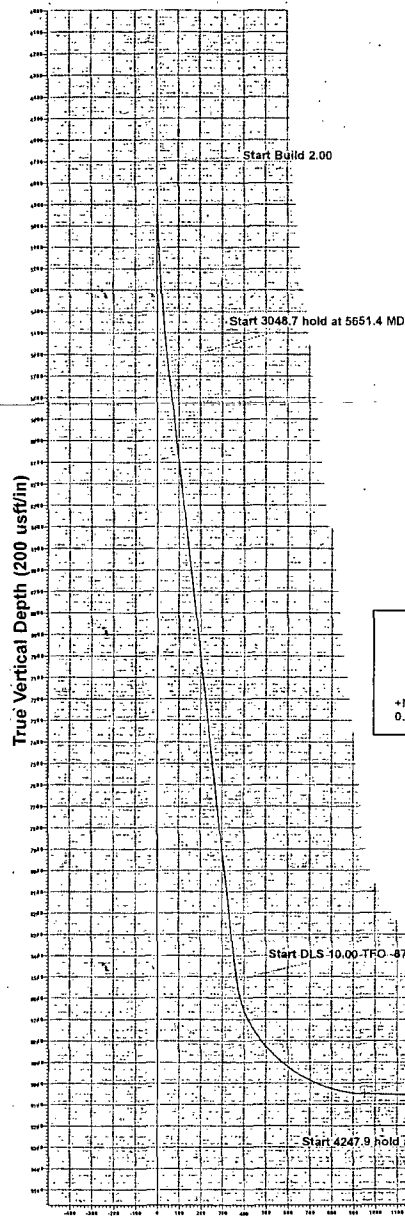
devon

Project: Eddy County (NAD83)
 Site: Agasti "27" Fed
 Well: #1H
 Wellbore: OH
 Plan: Plan #3 (#1H/OH)

PROJECT DETAILS: Eddy County (NAD83)
 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

PATHFINDER®

A Schlumberger Company



WELL DETAILS: #1H						
Ground Elevation: 3519.7						
RKB Elevation: KB = 26 @ 3545.7usft (H&P 300)						
Rig Name: H&P 300						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	596840.280	685391.790	32.639890	-103.865347	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4700.0	0.00	0.00	4700.0	0.0	0.0	0.00	0.00	0.0	
3	5551.4	19.03	177.56	5534.0	-156.4	6.7	2.00	177.56	49.8	
4	8700.1	19.03	177.56	8516.1	-1149.5	49.0	0.00	0.00	365.7	
5	9574.7	88.45	90.85	9049.1	-1336.2	604.4	10.00	-87.39	951.2	EOC (Agasti 27 #1H)
6	13822.5	88.45	90.85	9164.1	-1399.5	4850.3	0.00	0.00	5048.1	PBHL (Agasti 27 #1H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
EOC (Agasti 27 #1H)	9049.1	-1336.2	604.4	595504.117	685996.213	Point
PBHL (Agasti 27 #1H)	9164.1	-1399.5	4850.3	595440.770	690242.040	Point



Azimuths to Grid North
 True North: -0.25°
 Magnetic North: 7.37°

Magnetic Field
 Strength: 48777.9snT
 Dip Angle: 60.52°
 Date: 5/29/2012
 Model: IGRF200510



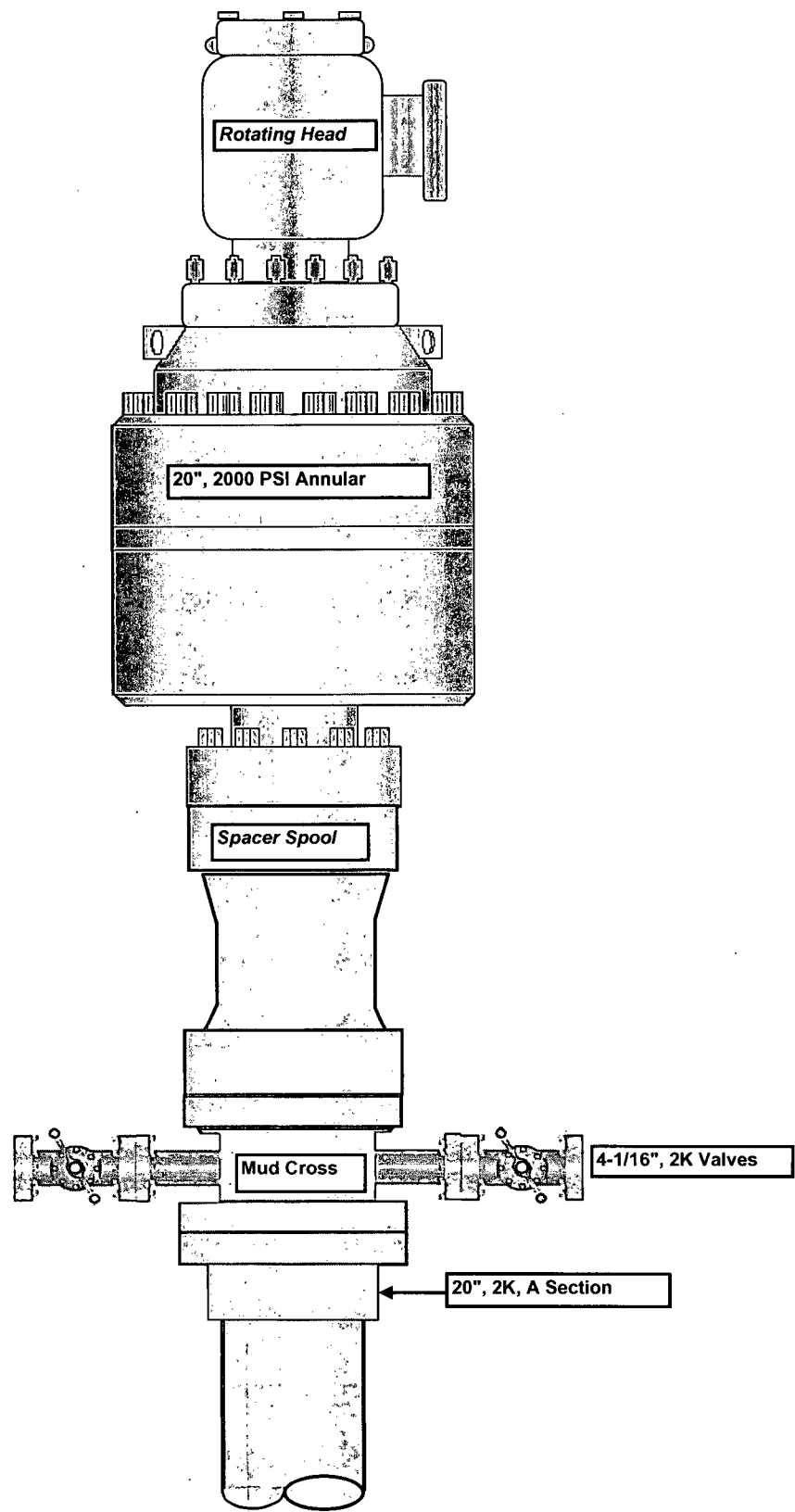
Vertical Section at 106.10° (200 usf/in)

Plan: Plan #3 (#1H/OH)

Created By: Sam Blife Date: 11:58, August 24 2012

Checked: _____ Date: _____

20" 2K Annular



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

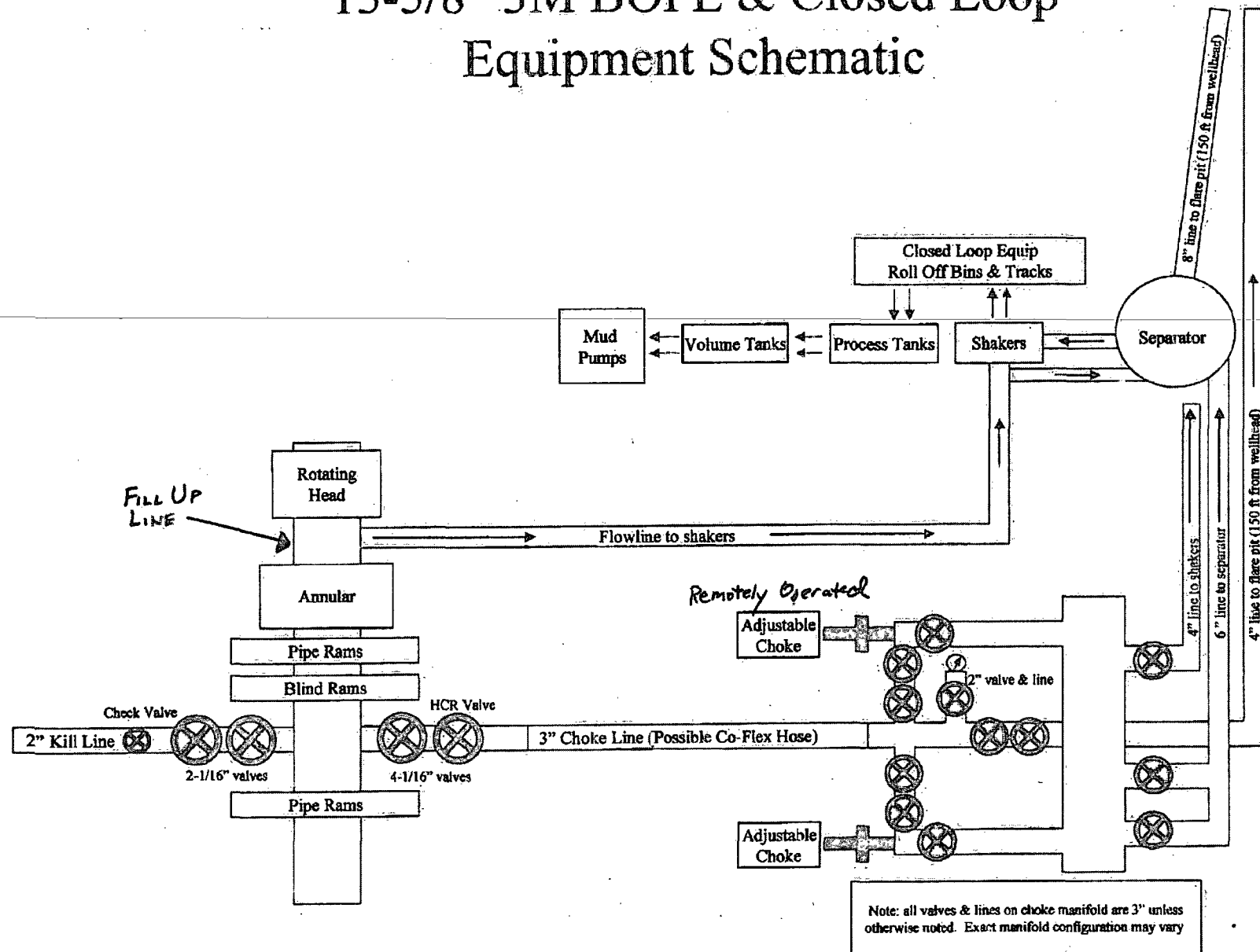
Agasti 27 Federal 1H

Surface Location: 1340' FNL & 305' FWL, Unit E, Sec 27 T19S R31E, Eddy, NM

Bottom Hole Location: 400' FNL & 340' FEL, Unit A, Sec 27 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" 3M BOPE & Closed Loop Equipment Schematic



Hydrostatic Test Certificate



Certificate Number: 4520	PBC No: 10321	Customer Name & Address:
Customer Purchase Order No: RIG 300		HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119
Project:		
Test Centre Address:	Accepted by ContiTech Beattie Inspection:	Accepted by Client Inspection:
ContiTech Beattie Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Josh Sims Date: 10/27/10	

We certify that the goods detailed hereon have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industrial standards within the requirements of the purchase order as issued to ContiTech Beattie Corporation.

These goods were made in the United States of America.

Item	Part No.	Description	Qty	Serial Number	As-Built Length (m)	Work Press.	Test Press.	Test Time (minutes)
1		3" ID 10K Choke & Kill Hose x 35ft OAL End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End B: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange Working Pressure: 10,000psi Test Pressure: 15,000psi Serial#: 49106	1	49106		10 kpsi	15 kpsi	60

45

50

55

18000

16000

14000

12000

10000

8000

6000

4000

2000

Capline Combustion Inc.

360 deg = 96 min
CHART NO. MC MP-20000-1H
METER RL# 4486

CHART PUT ON
SN/34403

TAKEN OFF

LOCATION Recertification hose
REMARKS LJB TK 10/22/10

Contract Beale Corp
Certified True Copy

[Signature]

40

20

15

10

05



**Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260**

Hydrogen Sulfide (H₂S) Contingency Plan

For

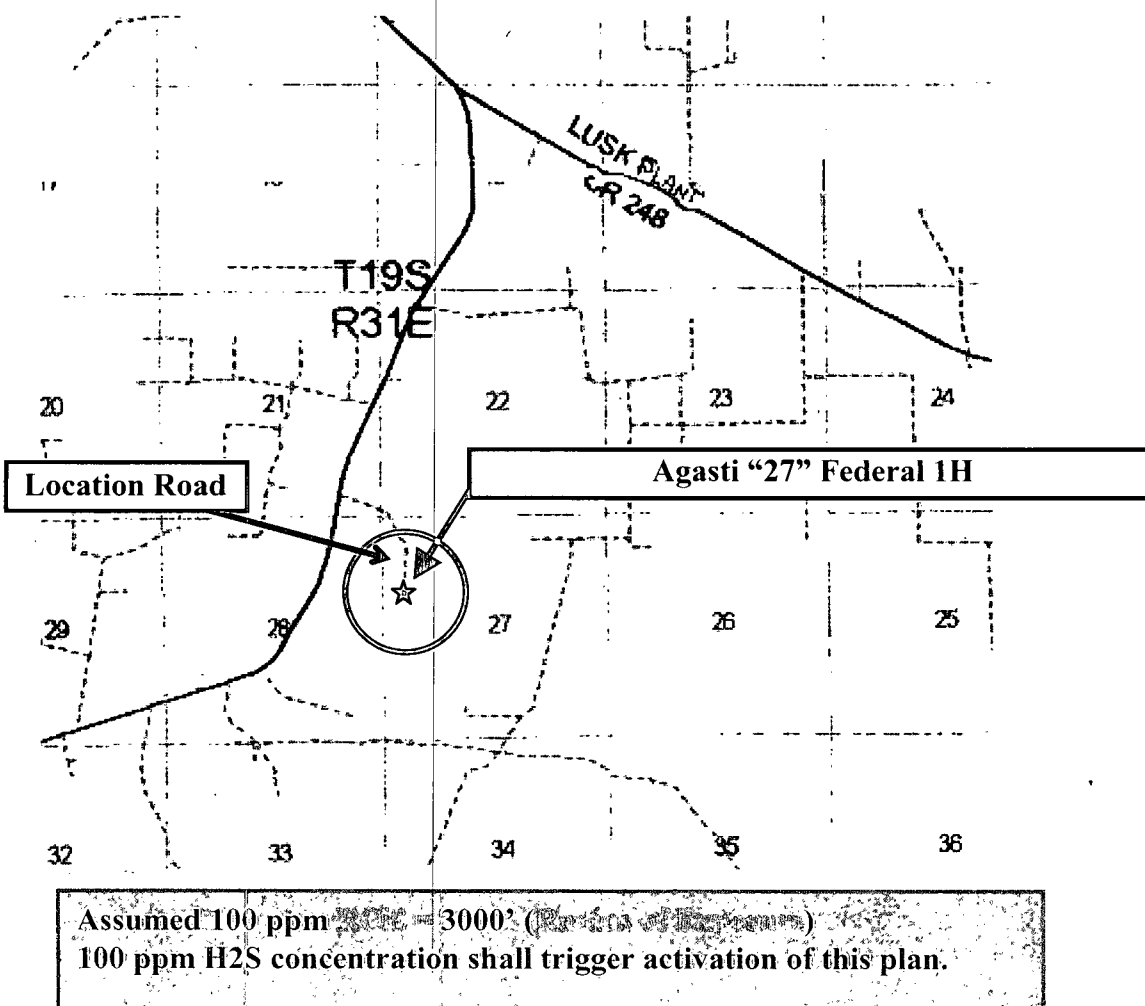
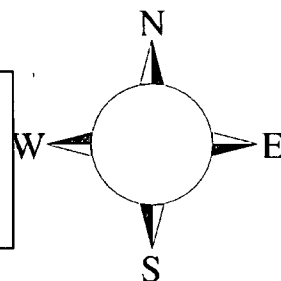
Agasti "27" Fed 1H

**Sec-22, T-19S R-31E
440' FSL & 100' FWL,
LAT. = 32.6386806'N (NAD83)
LONG = 103.8656681'W**

Eddy County NM

Agasti "27" Federal 1H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road, North then Northwest on lease road. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE. However, there is a ranch approximately 1.5 miles South. Provision should be made to inform them in case of a gas release.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

2. Protective equipment for essential personnel:

- A. 30-minute SCBA units located in the doghouse and at briefing areas, as indicated on well site diagram. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

- A. Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 PPM are reached. These units are usually capable of detecting SO₂, which is a byproduct of burning H₂S.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate..

5. Mud program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephones and 2-way radio
- B. Land line (telephone) communications at Office

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Devon Energy Corp. Company Call List

Artesia (575)	Cellular	Office	Home
Foreman – Robert Bell.....	748-7448	748-0178	746-2991
Asst. Foreman –Tommy Polly.....	748-5290	748-0165	748-2846
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker.....	390-5182	748-0193	936-414-6246
Engineer – Marcos Ortiz.....	(405) 317-0666....	(405) 552-8152....	(405) 381-4350

Agency Call List

<u>Lea</u>	Hobbs	
<u>County</u>	State Police	392-5588
<u>(575)</u>	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance.....	911
	Fire Department.....	397-9308
	LEPC (Local Emergency Planning Committee).....	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612

<u>Eddy</u>	Carlsbad	
<u>County</u>	State Police	885-3137
<u>(575)</u>	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance.....	911
	Fire Department.....	885-2111
	LEPC (Local Emergency Planning Committee).....	887-3798
	US Bureau of Land Management	887-6544
	New Mexico Emergency Response Commission (Santa Fe) ...	(505)476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center (Washington, DC) ..	(800) 424-8802

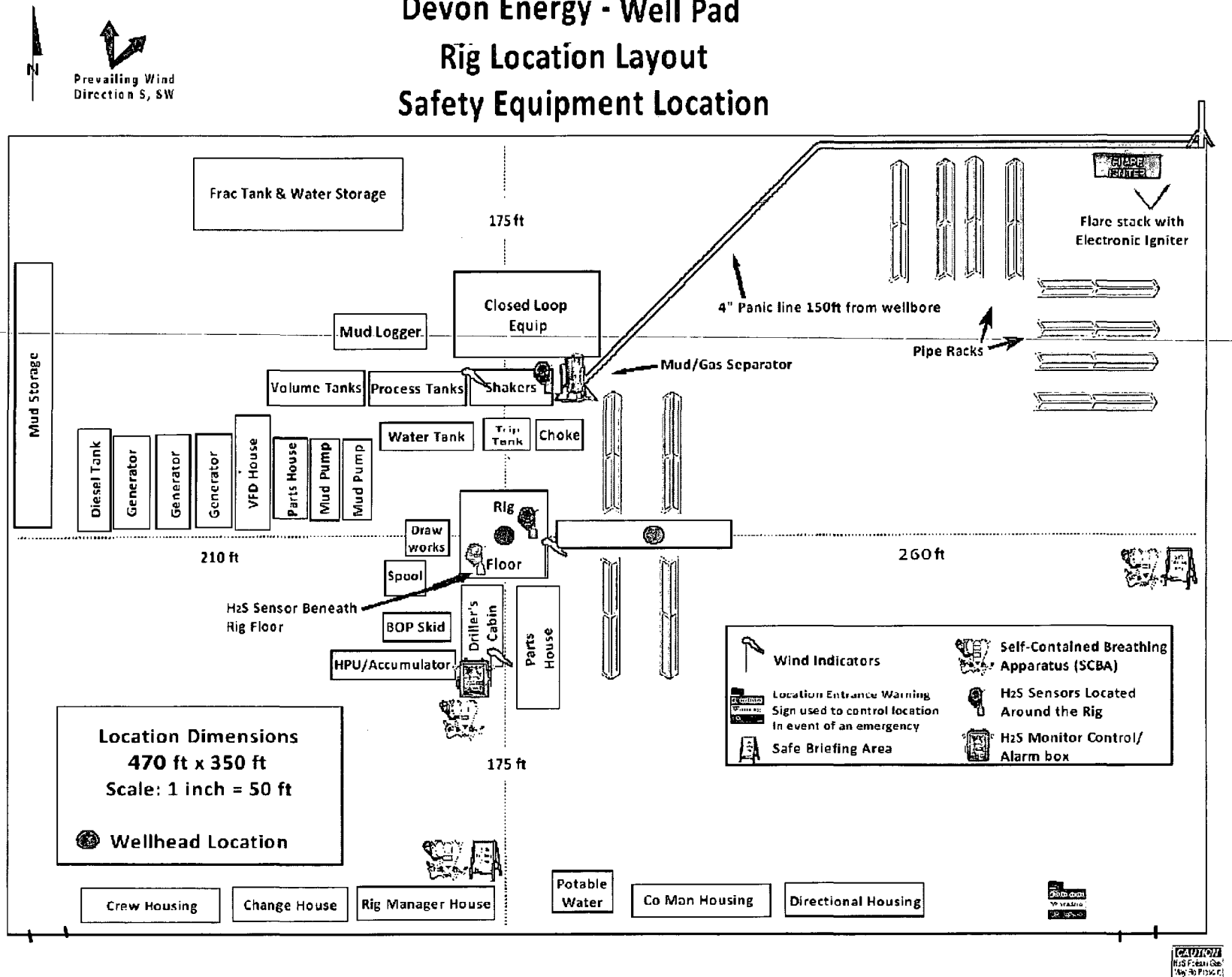
Emergency Services

	Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
	Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services.....	(575) 746-3569
<i>Give</i>	Flight For Life - Lubbock, TX	(806) 743-9911
<i>GPS</i>	Aerocare - Lubbock, TX	(806) 747-8923
<i>position:</i>	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(575) 272-3115

Prepared in conjunction with
Wade Rohloff



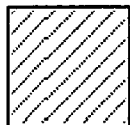
Devon Energy - Well Pad Rig Location Layout Safety Equipment Location





Proposed Interim Site Reclamation

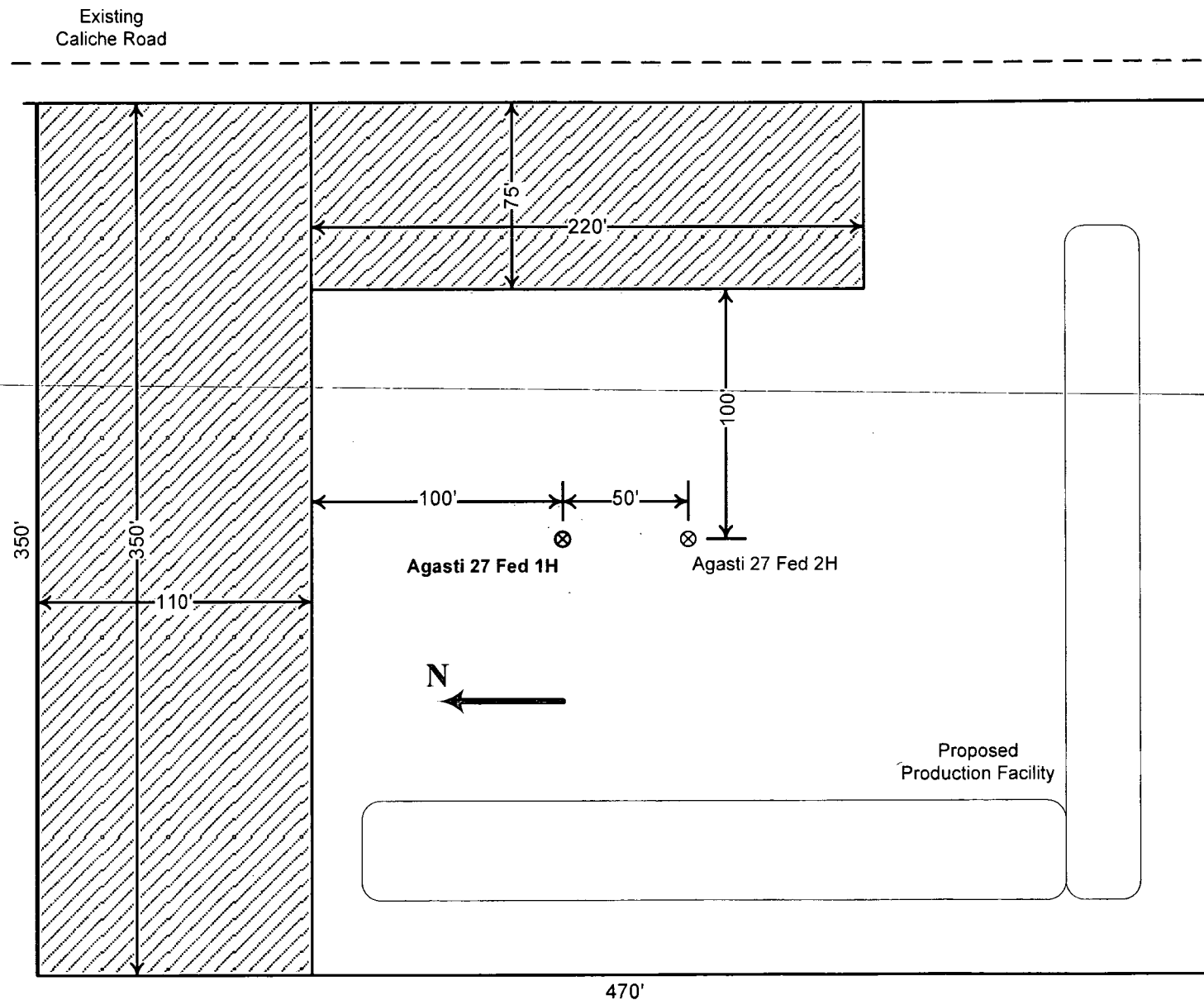
Devon Energy Production Co.
Agasti 27 Fed 1H
1340' FNL & 305' FWL
Sec. 27-T19S-R31E
Eddy County, NM



Proposed
Reclamation
Area



Scale: 1in = 60ft.



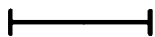


Proposed Interim Site Reclamation

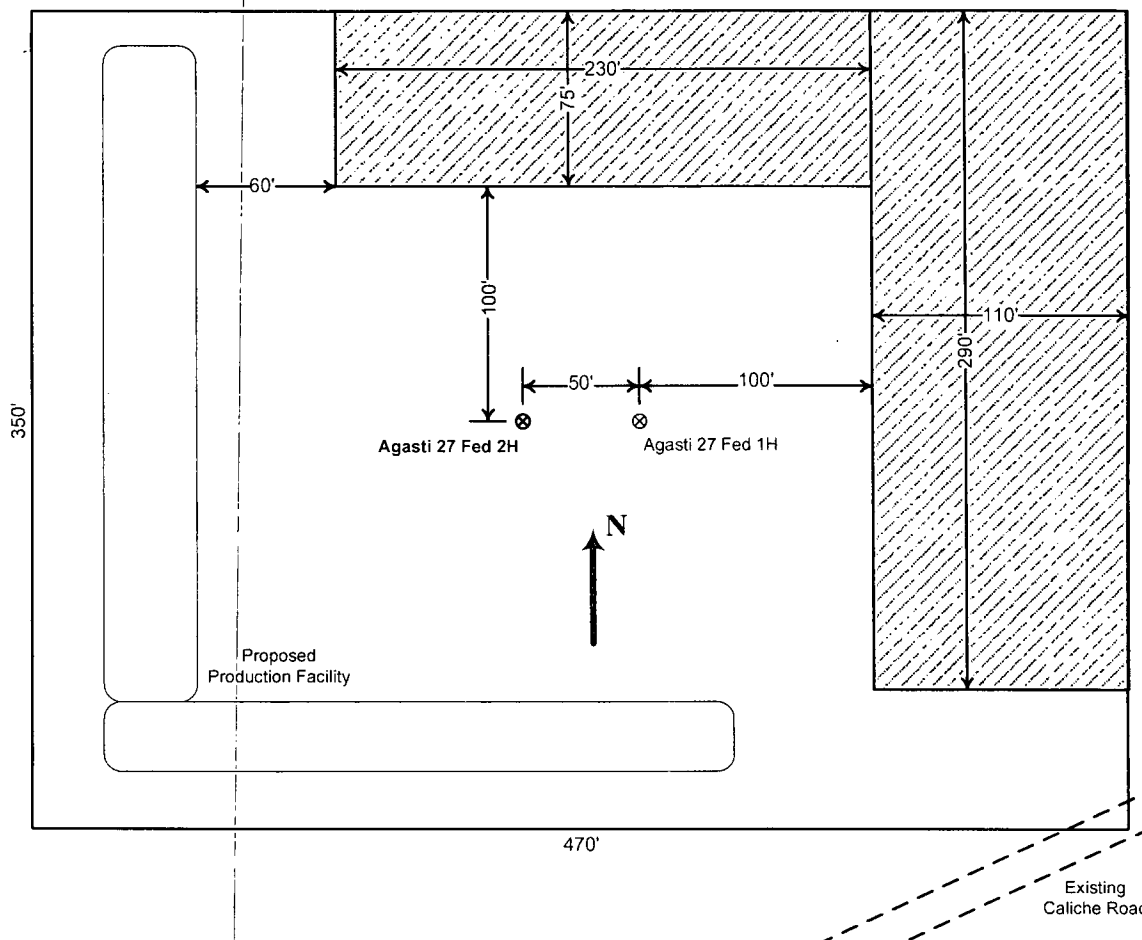
Devon Energy Production Co.
Agasti 27 Fed 2H
440' FSL & 50' FWL
Sec. 22-T19S-R31E
Eddy County, NM



Proposed Reclamation Area



Scale: 1in = 60ft.



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	DEVON ENGERGY PRODUCTION CO. L.P.
LEASE NO.:	NM-94845
WELL NAME & NO.:	Agasti 27 Federal 1H
SURFACE HOLE FOOTAGE:	0440' FSL & 0100' FWL
BOTTOM HOLE FOOTAGE:	0990' FNL & 0340' FEL Sec 27, T. 19 S., R 31 E.
LOCATION:	Section 22, T. 19 S., R 31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Hackberry Lake OHV Area
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - H2S requirements
 - Logging requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines – not requested
 - Electric Lines – not requested
- ☐ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**