

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

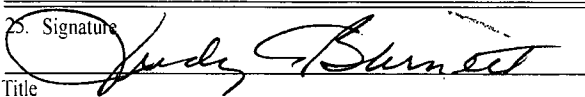
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM0107697; NM09003; NM 112274
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name TES
2. Name of Operator Devon Energy Production, Company L. P.		7. If Unit or CA Agreement, Name and No. 2/14/2013
3a. Address 333 W. Sheridan Oklahoma City, OK 73102	3b. Phone No. (include area code) 405-235-3611	8. Lease Name and Well No. Antares 23 Fed Com 1H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface D 1030 FNL & 225 FWL At proposed prod. zone A 400 FNL & 340 FEL		9. API Well No. 30-015-41105
14. Distance in miles and direction from nearest town or post office*		10. Field and Pool, or Exploratory Lusk; Bone Spring W.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'		11. Sec., T. R. M. or Blk. and Survey or Area SEC 23 T19S R31E
16. No. of acres in lease NM0107967; NM09003; NM112274- 2481 ac		12. County or Parish Eddy
17. Spacing Unit dedicated to this well 160		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map		19. Proposed Depth 9200' TVD 13,714' MD
20. BLM/BIA Bond No. on file CO-1104; NMB-000801		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3541' GL
22. Approximate date work will start*		23. Estimated duration 45 days

24. Attachments Pad drilled w/ Antares 23 Federal 2H

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

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

25. Signature 	Name (Printed/Typed) Judy A. Barnett	Date 07/17/2012
Title Regulatory Specialist		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date FEB - 8 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.

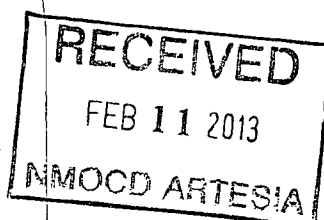
APPROVAL FOR TWO YEARS

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



SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

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 October 15, 2009

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-41105		² Pool Code 41480		³ Pool Name LUSK; BONE SPRING W.	
⁴ Property Code 39723		⁵ Property Name ANTARES "23" FEDERAL COM			⁶ Well Number 1H
⁷ OGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			⁹ Elevation 3541.0

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
D	23	19 S	31 E		1030	NORTH	225	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	23	19 S	31 E		400	NORTH	340	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
160			

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.

S89°37'30"W 2642.10 FT NW CORNER SEC. 23 LAT. = 32.6532167°N LONG. = 103.8485533°W NMSP EAST (FT) N = 60171.78 E = 690537.57 225' SURFACE LOCATION W O CORNER SEC. 23 LAT. = 32.6459648°N LONG. = 103.8485371°W NMSP EAST (FT) N = 598073.48 E = 690536.15 SW CORNER SEC. 23 LAT. = 32.6387059°N LONG. = 103.8485136°W NMSP EAST (FT) N = 596432.63 E = 690575.45 H89°21'38"E 2639.01		S89°30'59"W 2641.32 FT NE CORNER SEC. 23 LAT. = 32.6532412°N LONG. = 103.8313901°W NMSP EAST (FT) N = 601745.22 E = 695821.48 340' BOTTOM OF HOLE BOTTOM OF HOLE LAT. = 32.6521407°N LONG. = 103.8324919°W NMSP EAST (FT) N = 601343.24 E = 695484.28 N00°23'14"W 2639.94 FT		¹⁷ OPERATOR CERTIFICATION 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 hereinafter entered by the division. <i>Judy A. Barnett</i> Signature Date Printed Name Judy A. Barnett Regulatory Specialist
S00°24'12"E 2638.36 FT S00°25'08"E 2640.92 FT		N00°23'14"W 2639.94 FT N00°23'14"W 2639.94 FT		¹⁸ SURVEYOR CERTIFICATION 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. MAY 23 2015 Date of Survey <i>F. J. Arriaga</i> Signature and Seal of Professional Surveyor Certificate Number: FILAMON F. ARRIAGA, PLS (2797) SURVEY NO. 1042

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 10th day of July, 2012.

Printed Name: Judy A. Barnett

Signed Name: 

Position Title: Regulatory Specialist

Address: 333 W. Sheridan, 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, LP
Antares 23 Fed Com 1H

Surface Location: 1030' FNL & 225' FWL, Unit D, Sec 23 T19S R31E, Eddy, NM
Bottom Hole Location: 400' FNL & 340' FEL, Unit A, Sec.23 T19S R31E, Eddy, NM

1. **Geologic Name of Surface Formation**

- a. Quaternary Alluvium

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

a. Fresh Water	170'	
b. Rustler	610'	Barren
c. Salado	845'	Barren
d. Tansil Dolomite	2270'	Barren
e. Yates	2375'	Barren
f. Seven Rivers	2590'	Barren
g. Capitan	2690'	
h. B/Capitan	3550'	
i. Delaware	4405'	Oil
j. Bone Spring	6935'	Oil
k. 1 st Bone Spring Ss	8255'	Oil
l. 2 nd Bone Spring Lime	8565'	Oil
m. 2 nd Bone Spring Ss	8975'	Oil
Total Depth	13,714'	

Casing Program: All casing is new and API approved

<u>Hole</u> <u>Size</u>	<u>Hole</u> <u>Interval</u>	<u>OD Csg</u>	<u>Casing</u> <u>Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
500 10A 26"	0 - 800' 640	20"	0'-800'	94#	BT&C	J/K-55
17 1/2"	800- 2600'	13 3/8"	0'-2600'	61#	BT&C	J-55
12 1/4"	2600-4400' 4300	9 5/8"	0'-4400'	36#	LT&C	J-55
8 3/4"	4400'-8425'	5 1/2"	0'-8425'	17#	LT&C	HCP110
8 3/4"	8425-13714	5 1/2"	8425-13714'	17#	BT&C	HCP110

MAX TVD in lateral 9200'

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
20"	1.39	5.64	1.86
13 3/8" 36#	1.14	1.28	2.58
9 5/8" 40#	1.30	1.54	3.56
5 1/2" 17# LTC	1.89	2.70	1.90
5 1/2" 17#BTC	1.73	2.47	7.36

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. There is no potential for the intermediate casing to be used as a production string.

3. Cement Program: (volumes based on at least 25% excess)

- a. 20" Surface **Lead** w/ 1115sx Cl C + 1% bwoc Calcium Chloride + 0.125#/sx CF + 4% bwoc Bentonite + 81.1% FW, 13.5 ppg. **Yld** 1.73 cf/sx. **TOC @ surface. Tail** w/ 300 sx Class C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 56.3% FW, 14.8 ppg. **Yld** 1.35 cf/sx. **TOC @ surface.**
- b. 13 3/8" Intermediate **Lead** w/ 1825 sx 60:40 POZ (Fly Ash): Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 3#/sx LCM-1 + 1% bwoc Sodium Metasilicate + 0.4% bwoc R-3 + 0.25% bwoc FL-52 + 89.5% FW, 12.6 ppg. **Yld** 1.74 cf/sx. **TOC @ surface. Tail** w/ 450 sx 60:40 POZ (Fly Ash): Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 0.5% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 0.5% bwoc BA-10A + 65.3% FW, 13.8 ppg. **Yld** 1.38 cf/sx.
- c. 9 5/8" Intermediate **1st Stage:**Lead w/ 510 sx 60:40 POZ (Fly Ash) Cl C + 0.125#/sx CF + 5% bwow Sodium Chloride + 3#/sx LCM-1 + 1% bwoc Sodium Metasilicate + 0.3% bwoc R-3 + 0.25% bwoc FL-52 + 89.6% FW, 12.6 ppg. **Yld** 1.73 cf/sx. **Tail** w/ 300 sx 60:40 Poz (Fly Ash) Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 0.1% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 0.5% bwoc BA-10A + 65.2% FW, 13.8 ppg. **Yld** 1.38 cf/sx.

DV Tool and ECP set at 2,670'. DV tool and ECP actual depth may be adjusted, on location of loss zone.

2nd Stage: Lead w/ 525 sx 60:40 Poz Fly Ash Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 3#sx LCM-1 + 1% bwoc Sodium Metasilicate + 0.25% bwoc FL-52 + 0.3% bwoc R-3 + 89.6% FW, 12.6 ppg **Yld 1.73 cf/sx.** **Tail** w/ 150 sx 60:40 Poz Fly Ash Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 0.1% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 0.5% bwoc BA-10A + 65.2% FW. 13.8 ppg, Yld 1.38 cf/sx.

5 1/2" Production

1st Stage: Lead w/ 880 sx (35:65) Poz Fly Ash Cl H + 3% bwow Sodium Chloride + 0.125#/sx CF + 0.7% bwoc FL-52 + 6% bwoc Bentonite + 0.2% bwoc R-3 + 0.3% bwoc ASA-301 + 105.5% FW. 12.5 ppg, Yld 2.01 cf/sx. **Tail:** 1340 sx 50:50 Poz Fly Ash Cl H + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.25% bwoc Sodium Metasilicate + 57.2% FW, 14.2 ppg, **Yld 1.28 cf/sx**

DV Tool @ 5000'

2nd Stage: Lead w/ 300 sx Cl C + 1% bwoc R-3 + 0.125#/sx /cf + 3% bwoc Sodium Metasilicate + 0.3% bwoc FL-52 + 157% FW, 11.40 ppg, Yld 2.88 cf/sx. **Tail** w/ 150 sx 60:40 Poz Fly Ash Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 4% bwoc MPA-5 + 0.5% bwoc BA-10A + 65.1% FW, 13.8 ppg, Yld 1.37. TOC 2500' ~200' above Reef top.

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 Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the 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. Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); if an H&P rig drills this well. Otherwise no flex line is needed. The line will be kept as straight as possible with minimal turns.

Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0 - 800' 640	8.4-9.0	30-34	NC	FW
800- 2600' 4300	9.8-10.0	28-32	NC	Brine
2600-4400'	8.4-9.0	28-32	NC	FW
4400-13,714'	8.6-9.0	28-32	NC-12	FW

Antares 23 FPD 1H

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. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 20" 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*

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

6. **Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3800 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

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

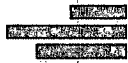
- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will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



Weatherford®

Drilling Services

Proposal



devon

ANTARES 23 FEDERAL #1H

EDDY COUNTY, NM

WELL FILE: PLAN 1

JULY 10, 2012

Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

devon

Antares 23 Federal #1H
Eddy Co., New Mexico

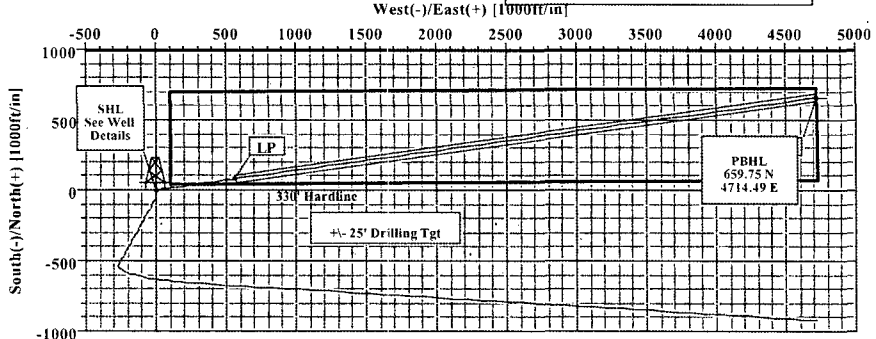
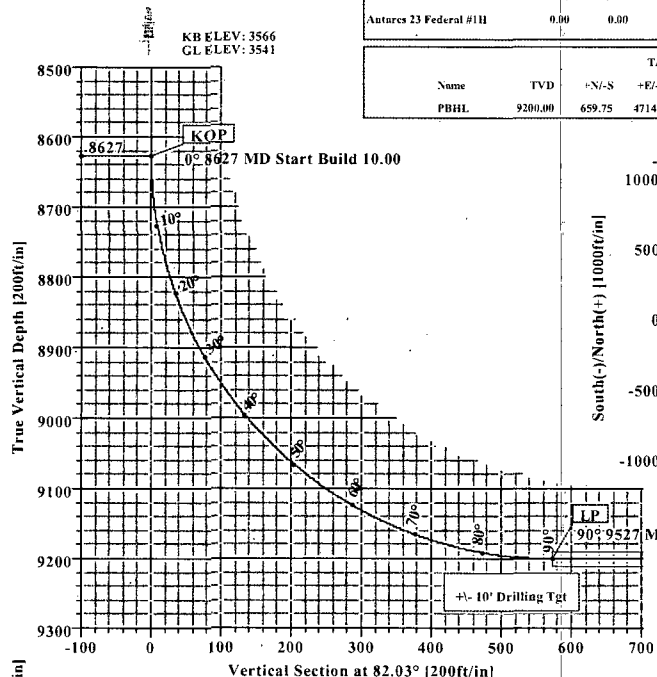
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec. Target
1	0.00	0.00	82.03	0.00	0.00	0.00	0.00	0.00	0.00
2	8627.04	0.00	82.03	8627.04	0.00	0.00	0.00	0.00	0.00
3	9527.04	90.00	82.03	9200.00	79.41	567.43	10.00	82.03	572.96
4	13714.51	90.00	82.03	9200.00	659.75	4714.49	0.00	0.00	4760.43 PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Antares 23 Federal #1H	0.00	0.00	600683.49	690769.77	32°39'01.383"N	103°50'52.165"W	N/A

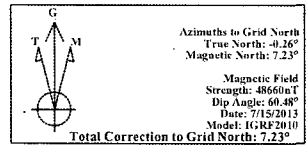
TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	9200.00	659.75	4714.49	601343.24	695484.26	Rectangle (4187x50)

SITE DETAILS	
Antares 23 Federal #1H	
Site Centre Northing:	600683.49
Easting:	690769.77
Ground Level:	3541.00
Positional Uncertainty:	0.00
Convergence:	0.26

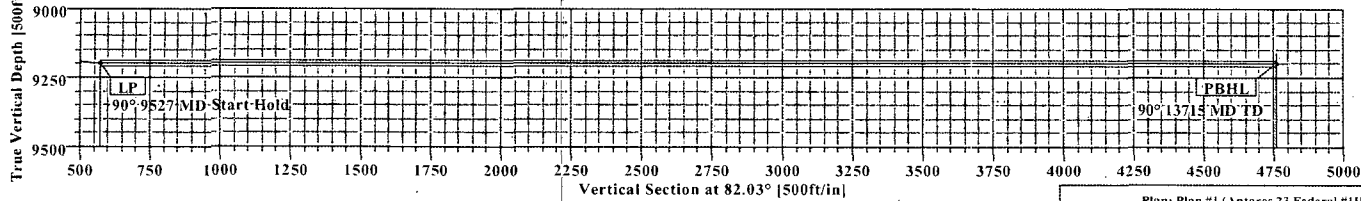
FIELD DETAILS	
Eddy Co., NM (NAD 83)	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico, Eastern Zone
Magnetic Model:	IGRF2010
System Datum:	Mean Sea Level
Local North:	Grid North



LEGEND	
Antares 23 Fed #2H (1)	Plan #1



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Plan: Plan #1 (Antares 23 Federal #1H/1)
Created By: Russell W. Joyner
Date: 7/10/2012



Weatherford

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy Field: Eddy Co., NM (NAD 83) Site: Antares 23 Federal #1H Well: Antares 23 Federal #1H Wellpath: 1		Date: 7/10/2012 Time: 09:48:38 Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North Vertical (TVD) Reference: SITE 3566.0 Section (VS) Reference: Well (0.00N,0.00E,82.03Azi) Survey Calculation Method: Minimum Curvature Db: Sybase		Page: 1						
Plan: Plan #1 Principal: Yes		Date Composed: 7/10/2012 Version: 1 Tied-to: From Surface								
Field: Eddy Co., NM (NAD 83) Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level		Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010								
Site: Antares 23 Federal #1H Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 3541.00 ft		Northing: 600683.49 ft Easting: 690769.77 ft Latitude: 32 39 1.383 N Longitude: 103 50 52.165 W North Reference: Grid Grid Convergence: 0.26 deg								
Well: Antares 23 Federal #1H Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft		Slot Name: Latitude: 32 39 1.383 N Longitude: 103 50 52.165 W								
Wellpath: 1 Current Datum: SITE Magnetic Data: 7/15/2013 Field Strength: 48660 nT Vertical Section: Depth From (TVD) ft		Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.49 deg Mag Dip Angle: 60.48 deg +E/-W ft Direction deg								
0.00		0.00 0.00 82.03								
Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	82.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8627.04	0.00	82.03	8627.04	0.00	0.00	0.00	0.00	0.00	0.00	
9527.04	90.00	82.03	9200.00	79.41	567.43	10.00	10.00	0.00	82.03	
13714.51	90.00	82.03	9200.00	659.75	4714.49	0.00	0.00	0.00	0.00	PBHL
Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8600.00	0.00	82.03	8600.00	0.00	0.00	0.00	0.00	600683.49	690769.77	
8627.04	0.00	82.03	8627.04	0.00	0.00	0.00	0.00	600683.49	690769.77	KOP
8650.00	2.30	82.03	8649.99	0.06	0.46	0.46	10.00	600683.55	690770.23	
8700.00	7.30	82.03	8699.80	0.64	4.59	4.64	10.00	600684.13	690774.36	
8750.00	12.30	82.03	8749.06	1.82	13.02	13.14	10.00	600685.31	690782.79	
8800.00	17.30	82.03	8797.39	3.59	25.66	25.91	10.00	600687.08	690795.43	
8850.00	22.30	82.03	8844.42	5.94	42.42	42.84	10.00	600689.43	690812.19	
8900.00	27.30	82.03	8889.79	8.84	63.18	63.80	10.00	600692.33	690832.95	
8950.00	32.30	82.03	8933.17	12.28	87.78	88.64	10.00	600695.77	690857.55	
9000.00	37.30	82.03	8974.21	16.24	116.03	117.16	10.00	600699.73	690885.80	
9050.00	42.30	82.03	9012.62	20.67	147.71	149.15	10.00	600704.16	690917.48	
9100.00	47.30	82.03	9048.09	25.55	182.59	184.37	10.00	600709.04	690952.36	
9150.00	52.30	82.03	9080.35	30.84	220.40	222.55	10.00	600714.33	690990.17	
9200.00	57.30	82.03	9109.17	36.50	260.85	263.39	10.00	600719.99	691030.62	
9250.00	62.30	82.03	9134.32	42.49	303.63	306.59	10.00	600725.98	691073.40	
9300.00	67.30	82.03	9155.60	48.76	348.42	351.81	10.00	600732.25	691118.19	
9350.00	72.30	82.03	9172.86	55.26	394.87	398.72	10.00	600738.75	691164.64	



Weatherford

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Antares 23 Federal #1H
Well: Antares 23 Federal #1H
Wellpath: 1

Date: 7/10/2012 Time: 09:48:38 Page: 2
Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North
Vertical (TVD) Reference: SITE 3566.0
Section (VS) Reference: Well (0.00N,0.00E,82.03Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comments
9400.00	77.30	82.03	9185.97	61.94	442.64	446.95	10.00	600745.43	691212.41	
9450.00	82.30	82.03	9194.83	68.76	491.36	496.15	10.00	600752.25	691261.13	
9500.00	87.30	82.03	9199.36	75.66	540.66	545.93	10.00	600759.15	691310.43	
9527.04	90.00	82.03	9200.00	79.41	567.43	572.96	10.00	600762.90	691337.20	LP
9600.00	90.00	82.03	9200.00	89.52	639.68	645.92	0.00	600773.01	691409.45	
9700.00	90.00	82.03	9200.00	103.38	738.72	745.92	0.00	600786.87	691508.49	
9800.00	90.00	82.03	9200.00	117.24	837.75	845.92	0.00	600800.73	691607.52	
9900.00	90.00	82.03	9200.00	131.09	936.79	945.92	0.00	600814.58	691706.56	
10000.00	90.00	82.03	9200.00	144.95	1035.82	1045.92	0.00	600828.44	691805.59	
10100.00	90.00	82.03	9200.00	158.81	1134.86	1145.92	0.00	600842.30	691904.63	
10200.00	90.00	82.03	9200.00	172.67	1233.89	1245.92	0.00	600856.16	692003.66	
10300.00	90.00	82.03	9200.00	186.53	1332.93	1345.92	0.00	600870.02	692102.70	
10400.00	90.00	82.03	9200.00	200.39	1431.96	1445.92	0.00	600883.88	692201.73	
10500.00	90.00	82.03	9200.00	214.25	1531.00	1545.92	0.00	600897.74	692300.77	
10600.00	90.00	82.03	9200.00	228.11	1630.03	1645.92	0.00	600911.60	692399.80	
10700.00	90.00	82.03	9200.00	241.97	1729.07	1745.92	0.00	600925.46	692498.84	
10800.00	90.00	82.03	9200.00	255.83	1828.10	1845.92	0.00	600939.32	692597.87	
10900.00	90.00	82.03	9200.00	269.69	1927.14	1945.92	0.00	600953.18	692696.91	
11000.00	90.00	82.03	9200.00	283.54	2026.17	2045.92	0.00	600967.03	692795.94	
11100.00	90.00	82.03	9200.00	297.40	2125.21	2145.92	0.00	600980.89	692894.98	
11200.00	90.00	82.03	9200.00	311.26	2224.24	2245.92	0.00	600994.75	692994.01	
11300.00	90.00	82.03	9200.00	325.12	2323.28	2345.92	0.00	601008.61	693093.05	
11400.00	90.00	82.03	9200.00	338.98	2422.31	2445.92	0.00	601022.47	693192.08	
11500.00	90.00	82.03	9200.00	352.84	2521.35	2545.92	0.00	601036.33	693291.12	
11600.00	90.00	82.03	9200.00	366.70	2620.38	2645.92	0.00	601050.19	693390.15	
11700.00	90.00	82.03	9200.00	380.56	2719.42	2745.92	0.00	601064.05	693489.19	
11800.00	90.00	82.03	9200.00	394.42	2818.45	2845.92	0.00	601077.91	693588.22	
11900.00	90.00	82.03	9200.00	408.28	2917.49	2945.92	0.00	601091.77	693687.26	
12000.00	90.00	82.03	9200.00	422.13	3016.52	3045.92	0.00	601105.62	693786.29	
12100.00	90.00	82.03	9200.00	435.99	3115.56	3145.92	0.00	601119.48	693885.33	
12200.00	90.00	82.03	9200.00	449.85	3214.59	3245.92	0.00	601133.34	693984.36	
12300.00	90.00	82.03	9200.00	463.71	3313.63	3345.92	0.00	601147.20	694083.40	
12400.00	90.00	82.03	9200.00	477.57	3412.66	3445.92	0.00	601161.06	694182.43	
12500.00	90.00	82.03	9200.00	491.43	3511.70	3545.92	0.00	601174.92	694281.47	
12600.00	90.00	82.03	9200.00	505.29	3610.73	3645.92	0.00	601188.78	694380.50	
12700.00	90.00	82.03	9200.00	519.15	3709.77	3745.92	0.00	601202.64	694479.54	
12800.00	90.00	82.03	9200.00	533.01	3808.80	3845.92	0.00	601216.50	694578.57	
12900.00	90.00	82.03	9200.00	546.87	3907.84	3945.92	0.00	601230.36	694677.61	
13000.00	90.00	82.03	9200.00	560.73	4006.87	4045.92	0.00	601244.22	694776.64	
13100.00	90.00	82.03	9200.00	574.58	4105.91	4145.92	0.00	601258.07	694875.68	
13200.00	90.00	82.03	9200.00	588.44	4204.94	4245.92	0.00	601271.93	694974.71	
13300.00	90.00	82.03	9200.00	602.30	4303.98	4345.92	0.00	601285.79	695073.75	
13400.00	90.00	82.03	9200.00	616.16	4403.01	4445.92	0.00	601299.65	695172.78	
13500.00	90.00	82.03	9200.00	630.02	4502.05	4545.92	0.00	601313.51	695271.82	
13600.00	90.00	82.03	9200.00	643.88	4601.08	4645.92	0.00	601327.37	695370.85	
13700.00	90.00	82.03	9200.00	657.74	4700.12	4745.92	0.00	601341.23	695469.89	
13714.51	90.00	82.03	9200.00	659.75	4714.49	4760.43	0.00	601343.24	695484.26	PBHL



Weatherford

WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy Date: 7/10/2012 Time: 09:48:38 Page: 3
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North
Site: Antares 23 Federal #1H Vertical (TVD) Reference: SITE 3566.0
Well: Antares 23 Federal #1H Section (VS) Reference: Well (0.00N,0.00E,82.03Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
							Deg	Min	Sec	Deg	Min	Sec
PBHL -Rectangle (4187x50)		9200.00	659.75	4714.49	601343.24	695484.26	32	39	7.695 N	103	49	56.987 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8627.04	8627.04	KOP
9527.04	9200.00	LP
13714.51	9200.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy	Date: 7/10/2012	Time: 09:47:51	Page: 1																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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<table border="1"><thead><tr><th>Reference MD ft</th><th>TVD ft</th><th>Offset MD ft</th><th>TVD ft</th><th>Semi-Major Axis Ref ft</th><th>Offset TFO-HS deg</th><th>Offset Location North ft</th><th>East ft</th><th>Ctr-Ctr Distance ft</th><th>Edge Distance ft</th><th>Separation Factor</th><th>Warning</th></tr></thead><tbody><tr><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td></td><td>No Data</td></tr><tr><td>100.00</td><td>100.00</td><td>100.00</td><td>100.00</td><td>0.08</td><td>0.08</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>49.82</td><td>296.55</td></tr><tr><td>200.00</td><td>200.00</td><td>200.00</td><td>200.00</td><td>0.31</td><td>0.31</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>49.37</td><td>80.88</td></tr><tr><td>300.00</td><td>300.00</td><td>300.00</td><td>300.00</td><td>0.53</td><td>0.53</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>48.92</td><td>46.82</td></tr><tr><td>400.00</td><td>400.00</td><td>400.00</td><td>400.00</td><td>0.76</td><td>0.76</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>48.47</td><td>32.95</td></tr><tr><td>500.00</td><td>500.00</td><td>500.00</td><td>500.00</td><td>0.98</td><td>0.98</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>48.02</td><td>25.42</td></tr><tr><td>600.00</td><td>600.00</td><td>600.00</td><td>600.00</td><td>1.21</td><td>1.21</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>47.57</td><td>20.69</td></tr><tr><td>700.00</td><td>700.00</td><td>700.00</td><td>700.00</td><td>1.43</td><td>1.43</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>47.13</td><td>17.44</td></tr><tr><td>800.00</td><td>800.00</td><td>800.00</td><td>800.00</td><td>1.66</td><td>1.66</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>46.68</td><td>15.08</td></tr><tr><td>900.00</td><td>900.00</td><td>900.00</td><td>900.00</td><td>1.88</td><td>1.88</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>46.23</td><td>13.28</td></tr><tr><td>1000.00</td><td>1000.00</td><td>1000.00</td><td>1000.00</td><td>2.11</td><td>2.11</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>45.78</td><td>11.86</td></tr><tr><td>1100.00</td><td>1100.00</td><td>1100.00</td><td>1100.00</td><td>2.33</td><td>2.33</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>45.33</td><td>10.72</td></tr><tr><td>1200.00</td><td>1200.00</td><td>1200.00</td><td>1200.00</td><td>2.56</td><td>2.56</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>44.88</td><td>9.78</td></tr><tr><td>1300.00</td><td>1300.00</td><td>1300.00</td><td>1300.00</td><td>2.78</td><td>2.78</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>44.43</td><td>8.99</td></tr><tr><td>1400.00</td><td>1400.00</td><td>1400.00</td><td>1400.00</td><td>3.01</td><td>3.01</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>43.98</td><td>8.31</td></tr><tr><td>1500.00</td><td>1500.00</td><td>1500.00</td><td>1500.00</td><td>3.23</td><td>3.23</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>43.53</td><td>7.74</td></tr><tr><td>1600.00</td><td>1600.00</td><td>1600.00</td><td>1600.00</td><td>3.46</td><td>3.46</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>43.08</td><td>7.23</td></tr><tr><td>1700.00</td><td>1700.00</td><td>1700.00</td><td>1700.00</td><td>3.68</td><td>3.68</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>42.63</td><td>6.79</td></tr><tr><td>1800.00</td><td>1800.00</td><td>1800.00</td><td>1800.00</td><td>3.91</td><td>3.91</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>42.18</td><td>6.40</td></tr><tr><td>1900.00</td><td>1900.00</td><td>1900.00</td><td>1900.00</td><td>4.13</td><td>4.13</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>41.73</td><td>6.05</td></tr><tr><td>2000.00</td><td>2000.00</td><td>2000.00</td><td>2000.00</td><td>4.35</td><td>4.35</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>41.28</td><td>5.74</td></tr><tr><td>2100.00</td><td>2100.00</td><td>2100.00</td><td>2100.00</td><td>4.58</td><td>4.58</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>40.83</td><td>5.46</td></tr><tr><td>2200.00</td><td>2200.00</td><td>2200.00</td><td>2200.00</td><td>4.80</td><td>4.80</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>40.38</td><td>5.20</td></tr><tr><td>2300.00</td><td>2300.00</td><td>2300.00</td><td>2300.00</td><td>5.03</td><td>5.03</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>39.93</td><td>4.97</td></tr><tr><td>2400.00</td><td>2400.00</td><td>2400.00</td><td>2400.00</td><td>5.25</td><td>5.25</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>39.48</td><td>4.76</td></tr><tr><td>2500.00</td><td>2500.00</td><td>2500.00</td><td>2500.00</td><td>5.48</td><td>5.48</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>39.03</td><td>4.56</td></tr><tr><td>2600.00</td><td>2600.00</td><td>2600.00</td><td>2600.00</td><td>5.70</td><td>5.70</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>38.58</td><td>4.38</td></tr><tr><td>2700.00</td><td>2700.00</td><td>2700.00</td><td>2700.00</td><td>5.93</td><td>5.93</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>38.13</td><td>4.22</td></tr><tr><td>2800.00</td><td>2800.00</td><td>2800.00</td><td>2800.00</td><td>6.15</td><td>6.15</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>37.69</td><td>4.06</td></tr><tr><td>2900.00</td><td>2900.00</td><td>2900.00</td><td>2900.00</td><td>6.38</td><td>6.38</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>37.24</td><td>3.92</td></tr><tr><td>3000.00</td><td>3000.00</td><td>3000.00</td><td>3000.00</td><td>6.60</td><td>6.60</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>36.79</td><td>3.79</td></tr><tr><td>3100.00</td><td>3100.00</td><td>3100.00</td><td>3100.00</td><td>6.83</td><td>6.83</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>36.34</td><td>3.66</td></tr><tr><td>3200.00</td><td>3200.00</td><td>3200.00</td><td>3200.00</td><td>7.05</td><td>7.05</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>35.89</td><td>3.54</td></tr><tr><td>3300.00</td><td>3300.00</td><td>3300.00</td><td>3300.00</td><td>7.28</td><td>7.28</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>35.44</td><td>3.43</td></tr><tr><td>3400.00</td><td>3400.00</td><td>3400.00</td><td>3400.00</td><td>7.50</td><td>7.50</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>34.99</td><td>3.33</td></tr><tr><td>3500.00</td><td>3500.00</td><td>3500.00</td><td>3500.00</td><td>7.73</td><td>7.73</td><td>179.60</td><td>-49.99</td><td>0.35</td><td>49.99</td><td>34.54</td><td>3.24</td></tr></tbody></table>				Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning	0.00	0.00	0.00	0.00	0.00	0.00	179.60	-49.99	0.35	49.99		No Data	100.00	100.00	100.00	100.00	0.08	0.08	179.60	-49.99	0.35	49.99	49.82	296.55	200.00	200.00	200.00	200.00	0.31	0.31	179.60	-49.99	0.35	49.99	49.37	80.88	300.00	300.00	300.00	300.00	0.53	0.53	179.60	-49.99	0.35	49.99	48.92	46.82	400.00	400.00	400.00	400.00	0.76	0.76	179.60	-49.99	0.35	49.99	48.47	32.95	500.00	500.00	500.00	500.00	0.98	0.98	179.60	-49.99	0.35	49.99	48.02	25.42	600.00	600.00	600.00	600.00	1.21	1.21	179.60	-49.99	0.35	49.99	47.57	20.69	700.00	700.00	700.00	700.00	1.43	1.43	179.60	-49.99	0.35	49.99	47.13	17.44	800.00	800.00	800.00	800.00	1.66	1.66	179.60	-49.99	0.35	49.99	46.68	15.08	900.00	900.00	900.00	900.00	1.88	1.88	179.60	-49.99	0.35	49.99	46.23	13.28	1000.00	1000.00	1000.00	1000.00	2.11	2.11	179.60	-49.99	0.35	49.99	45.78	11.86	1100.00	1100.00	1100.00	1100.00	2.33	2.33	179.60	-49.99	0.35	49.99	45.33	10.72	1200.00	1200.00	1200.00	1200.00	2.56	2.56	179.60	-49.99	0.35	49.99	44.88	9.78	1300.00	1300.00	1300.00	1300.00	2.78	2.78	179.60	-49.99	0.35	49.99	44.43	8.99	1400.00	1400.00	1400.00	1400.00	3.01	3.01	179.60	-49.99	0.35	49.99	43.98	8.31	1500.00	1500.00	1500.00	1500.00	3.23	3.23	179.60	-49.99	0.35	49.99	43.53	7.74	1600.00	1600.00	1600.00	1600.00	3.46	3.46	179.60	-49.99	0.35	49.99	43.08	7.23	1700.00	1700.00	1700.00	1700.00	3.68	3.68	179.60	-49.99	0.35	49.99	42.63	6.79	1800.00	1800.00	1800.00	1800.00	3.91	3.91	179.60	-49.99	0.35	49.99	42.18	6.40	1900.00	1900.00	1900.00	1900.00	4.13	4.13	179.60	-49.99	0.35	49.99	41.73	6.05	2000.00	2000.00	2000.00	2000.00	4.35	4.35	179.60	-49.99	0.35	49.99	41.28	5.74	2100.00	2100.00	2100.00	2100.00	4.58	4.58	179.60	-49.99	0.35	49.99	40.83	5.46	2200.00	2200.00	2200.00	2200.00	4.80	4.80	179.60	-49.99	0.35	49.99	40.38	5.20	2300.00	2300.00	2300.00	2300.00	5.03	5.03	179.60	-49.99	0.35	49.99	39.93	4.97	2400.00	2400.00	2400.00	2400.00	5.25	5.25	179.60	-49.99	0.35	49.99	39.48	4.76	2500.00	2500.00	2500.00	2500.00	5.48	5.48	179.60	-49.99	0.35	49.99	39.03	4.56	2600.00	2600.00	2600.00	2600.00	5.70	5.70	179.60	-49.99	0.35	49.99	38.58	4.38	2700.00	2700.00	2700.00	2700.00	5.93	5.93	179.60	-49.99	0.35	49.99	38.13	4.22	2800.00	2800.00	2800.00	2800.00	6.15	6.15	179.60	-49.99	0.35	49.99	37.69	4.06	2900.00	2900.00	2900.00	2900.00	6.38	6.38	179.60	-49.99	0.35	49.99	37.24	3.92	3000.00	3000.00	3000.00	3000.00	6.60	6.60	179.60	-49.99	0.35	49.99	36.79	3.79	3100.00	3100.00	3100.00	3100.00	6.83	6.83	179.60	-49.99	0.35	49.99	36.34	3.66	3200.00	3200.00	3200.00	3200.00	7.05	7.05	179.60	-49.99	0.35	49.99	35.89	3.54	3300.00	3300.00	3300.00	3300.00	7.28	7.28	179.60	-49.99	0.35	49.99	35.44	3.43	3400.00	3400.00	3400.00	3400.00	7.50	7.50	179.60	-49.99	0.35	49.99	34.99	3.33	3500.00	3500.00	3500.00	3500.00	7.73	7.73	179.60	-49.99	0.35	49.99	34.54	3.24
Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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2000.00	2000.00	2000.00	2000.00	4.35	4.35	179.60	-49.99	0.35	49.99	41.28	5.74																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2100.00	2100.00	2100.00	2100.00	4.58	4.58	179.60	-49.99	0.35	49.99	40.83	5.46																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2200.00	2200.00	2200.00	2200.00	4.80	4.80	179.60	-49.99	0.35	49.99	40.38	5.20																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2300.00	2300.00	2300.00	2300.00	5.03	5.03	179.60	-49.99	0.35	49.99	39.93	4.97																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2400.00	2400.00	2400.00	2400.00	5.25	5.25	179.60	-49.99	0.35	49.99	39.48	4.76																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2500.00	2500.00	2500.00	2500.00	5.48	5.48	179.60	-49.99	0.35	49.99	39.03	4.56																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2600.00	2600.00	2600.00	2600.00	5.70	5.70	179.60	-49.99	0.35	49.99	38.58	4.38																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2700.00	2700.00	2700.00	2700.00	5.93	5.93	179.60	-49.99	0.35	49.99	38.13	4.22																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2800.00	2800.00	2800.00	2800.00	6.15	6.15	179.60	-49.99	0.35	49.99	37.69	4.06																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2900.00	2900.00	2900.00	2900.00	6.38	6.38	179.60	-49.99	0.35	49.99	37.24	3.92																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3000.00	3000.00	3000.00	3000.00	6.60	6.60	179.60	-49.99	0.35	49.99	36.79	3.79																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3100.00	3100.00	3100.00	3100.00	6.83	6.83	179.60	-49.99	0.35	49.99	36.34	3.66																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3200.00	3200.00	3200.00	3200.00	7.05	7.05	179.60	-49.99	0.35	49.99	35.89	3.54																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3300.00	3300.00	3300.00	3300.00	7.28	7.28	179.60	-49.99	0.35	49.99	35.44	3.43																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3400.00	3400.00	3400.00	3400.00	7.50	7.50	179.60	-49.99	0.35	49.99	34.99	3.33																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3500.00	3500.00	3500.00	3500.00	7.73	7.73	179.60	-49.99	0.35	49.99	34.54	3.24																																																																																																																																																																																																																																																																																																																																																																																																																																																				



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Antares 23 Federal #1H
Reference Well: Antares 23 Federal #1H
Reference Wellpath:

Date: 7/10/2012 Time: 09:47:51 Page: 2
Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North
Vertical (TVD) Reference: SITE 3566.0

Db: Sybase

Site: Antares 23 Federal #2H
Well: Antares 23 Fed #2H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	TVD	Offset MD	TVD	Semi-Major Axis Ref	Offset	TFO-HS	Offset Location North	East	Ctr-Ctr Edge Distance	Separation Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3600.00	3600.00	3600.00	3600.00	7.95	7.95	179.60	-49.99	0.35	49.99	34.09	3.14	
3700.00	3700.00	3700.00	3700.00	8.18	8.18	179.60	-49.99	0.35	49.99	33.64	3.06	
3800.00	3800.00	3800.00	3800.00	8.40	8.40	179.60	-49.99	0.35	49.99	33.19	2.98	
3900.00	3900.00	3900.00	3900.00	8.63	8.63	179.60	-49.99	0.35	49.99	32.74	2.90	
4000.00	4000.00	4000.00	4000.00	8.85	8.85	179.60	-49.99	0.35	49.99	32.29	2.82	
4100.00	4100.00	4100.00	4100.00	9.07	9.07	179.60	-49.99	0.35	49.99	31.84	2.75	
4200.00	4200.00	4200.00	4200.00	9.30	9.30	179.60	-49.99	0.35	49.99	31.39	2.69	
4300.00	4300.00	4300.00	4300.00	9.52	9.52	179.60	-49.99	0.35	49.99	30.94	2.62	
4400.00	4400.00	4400.00	4400.00	9.75	9.75	179.60	-49.99	0.35	49.99	30.49	2.56	
4500.00	4500.00	4500.00	4500.00	9.97	9.97	179.60	-49.99	0.35	49.99	30.04	2.51	
4600.00	4600.00	4600.00	4600.00	10.20	10.20	179.60	-49.99	0.35	49.99	29.59	2.45	
4700.00	4700.00	4700.00	4700.00	10.42	10.42	179.60	-49.99	0.35	49.99	29.14	2.40	
4800.00	4800.00	4800.00	4800.00	10.65	10.65	179.60	-49.99	0.35	49.99	28.69	2.35	
4900.00	4900.00	4900.00	4900.00	10.87	10.87	179.60	-49.99	0.35	49.99	28.25	2.30	
5000.00	5000.00	5000.00	5000.00	11.10	11.10	179.60	-49.99	0.35	49.99	27.80	2.25	
5100.00	5100.00	5100.00	5100.00	11.32	11.32	179.60	-49.99	0.35	49.99	27.35	2.21	
5200.00	5200.00	5200.00	5200.00	11.55	11.55	179.60	-49.99	0.35	49.99	26.90	2.16	
5300.00	5300.00	5300.00	5300.00	11.77	11.77	179.60	-49.99	0.35	49.99	26.45	2.12	
5400.00	5400.00	5397.69	5397.65	12.00	11.96	180.96	-52.17	-0.87	52.23	28.28	2.18	
5500.00	5500.00	5494.87	5494.53	12.22	12.13	184.39	-58.66	-4.50	59.08	34.77	2.43	
5600.00	5600.00	5591.05	5589.93	12.45	12.30	188.58	-69.30	-10.46	70.81	46.17	2.87	
5700.00	5700.00	5688.08	5685.56	12.67	12.47	192.45	-83.60	-18.46	86.82	61.82	3.47	
5800.00	5800.00	5786.56	5782.55	12.90	12.66	195.23	-98.51	-26.81	103.57	78.18	4.08	
5900.00	5900.00	5885.04	5879.54	13.12	12.86	197.22	-113.42	-35.16	120.50	94.70	4.67	
6000.00	6000.00	5983.53	5976.52	13.35	13.06	198.73	-128.33	-43.51	137.52	111.32	5.25	
6100.00	6100.00	6082.01	6073.51	13.57	13.27	199.90	-143.24	-51.86	154.63	128.02	5.81	
6200.00	6200.00	6180.49	6170.50	13.80	13.49	200.84	-158.16	-60.20	171.78	144.76	6.36	
6300.00	6300.00	6278.98	6267.49	14.02	13.72	201.61	-173.07	-68.55	188.97	161.54	6.89	
6400.00	6400.00	6377.46	6364.48	14.24	13.96	202.25	-187.98	-76.90	206.18	178.35	7.41	
6500.00	6500.00	6475.94	6461.47	14.47	14.20	202.79	-202.89	-85.25	223.42	195.17	7.91	
6600.00	6600.00	6574.42	6558.46	14.69	14.44	203.25	-217.80	-93.59	240.67	212.00	8.39	
6700.00	6700.00	6672.91	6655.45	14.92	14.70	203.66	-232.71	-101.94	257.94	228.85	8.87	
6800.00	6800.00	6771.39	6752.44	15.14	14.96	204.01	-247.63	-110.29	275.22	245.71	9.33	
6900.00	6900.00	6869.87	6849.42	15.37	15.22	204.32	-262.54	-118.64	292.50	262.57	9.77	
7000.00	7000.00	6968.36	6946.41	15.59	15.49	204.59	-277.45	-126.99	309.80	279.44	10.21	
7100.00	7100.00	7066.84	7043.40	15.82	15.76	204.84	-292.36	-135.33	327.10	296.32	10.63	
7200.00	7200.00	7165.32	7140.39	16.04	16.04	205.06	-307.27	-143.68	344.40	313.20	11.04	
7300.00	7300.00	7263.81	7237.38	16.27	16.32	205.26	-322.18	-152.03	361.71	330.08	11.43	
7400.00	7400.00	7362.29	7334.37	16.49	16.61	205.44	-337.10	-160.38	379.03	346.96	11.82	
7500.00	7500.00	7460.77	7431.36	16.72	16.90	205.61	-352.01	-168.73	396.35	363.85	12.20	
7600.00	7600.00	7559.25	7528.35	16.94	17.20	205.76	-366.92	-177.07	413.67	380.74	12.56	
7700.00	7700.00	7657.74	7625.34	17.17	17.49	205.90	-381.83	-185.42	430.99	397.63	12.92	
7800.00	7800.00	7756.22	7722.32	17.39	17.80	206.03	-396.74	-193.77	448.31	414.52	13.26	
7900.00	7900.00	7854.70	7819.31	17.62	18.10	206.15	-411.65	-202.12	465.64	431.41	13.60	
8000.00	8000.00	7953.19	7916.30	17.84	18.41	206.26	-426.57	-210.46	482.97	448.30	13.93	
8100.00	8100.00	8051.67	8013.29	18.07	18.72	206.36	-441.48	-218.81	500.30	465.19	14.25	
8200.00	8200.00	8150.15	8110.28	18.29	19.03	206.46	-456.39	-227.16	517.63	482.08	14.56	
8300.00	8300.00	8248.63	8207.27	18.52	19.35	206.55	-471.30	-235.51	534.97	498.97	14.86	
8400.00	8400.00	8347.12	8304.26	18.74	19.67	206.64	-486.21	-243.86	552.30	515.87	15.16	
8500.00	8500.00	8445.60	8401.25	18.96	19.99	206.71	-501.13	-252.20	569.64	532.76	15.45	
8600.00	8600.00	8544.08	8498.24	19.19	20.31	206.79	-516.04	-260.55	586.97	549.65	15.73	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Antares 23 Federal #1H
Reference Well: Antares 23 Federal #1H
Reference Wellpath:

Date: 7/10/2012 Time: 09:47:51 Page: 3
Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North
Vertical (TVD) Reference: SITE 3566.0
Db: Sybase

Site: Antares 23 Federal #2H
Well: Antares 23 Fed #2H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	TVD	Offset MD	TVD	Semi-Major Axis Ref	Offset	TFO-HS	Offset Location North	East	Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
8700.00	8699.80	8650.62	8603.17	19.41	20.65	123.97	-532.19	-269.21	606.81	569.05	16.07	
8800.00	8797.39	8822.89	8771.65	19.64	20.36	122.37	-559.95	-251.88	628.71	590.42	16.42	
8900.00	8889.79	8997.36	8928.87	19.87	19.40	118.97	-588.89	-183.69	647.89	609.23	16.76	
9000.00	8974.21	9165.14	9053.90	20.15	19.71	114.20	-615.03	-75.84	664.58	625.34	16.94	
9100.00	9048.09	9320.22	9137.25	20.54	20.51	108.65	-635.76	52.72	679.82	639.35	16.80	
9200.00	9109.17	9460.63	9180.70	21.10	21.76	102.80	-650.38	185.07	694.74	652.29	16.36	
9300.00	9155.60	9583.11	9191.68	21.91	23.27	97.15	-659.21	306.51	710.12	665.15	15.79	
9400.00	9185.97	9676.52	9192.07	22.98	24.70	93.00	-664.71	399.75	727.94	680.32	15.29	
9500.00	9199.36	9773.61	9192.47	24.31	26.35	90.00	-670.43	496.68	747.41	696.78	14.76	
9600.00	9200.00	9871.65	9192.87	25.84	28.18	89.46	-676.20	594.55	767.08	713.08	14.21	
9700.00	9200.00	9969.69	9193.28	27.55	30.14	89.50	-681.97	692.42	786.74	729.07	13.64	
9800.00	9200.00	10067.74	9193.69	29.41	32.21	89.54	-687.75	790.30	806.40	744.80	13.09	
9900.00	9200.00	10165.79	9194.09	31.40	34.37	89.58	-693.52	888.17	826.07	760.31	12.56	
10000.00	9200.00	10263.83	9194.50	33.49	36.61	89.62	-699.29	986.05	845.73	775.65	12.07	
10100.00	9200.00	10361.88	9194.90	35.66	38.90	89.66	-705.07	1083.92	865.39	790.85	11.61	
10200.00	9200.00	10459.93	9195.31	37.90	41.25	89.69	-710.84	1181.80	885.06	805.92	11.18	
10300.00	9200.00	10557.97	9195.71	40.21	43.63	89.72	-716.61	1279.67	904.72	820.90	10.79	
10400.00	9200.00	10656.02	9196.12	42.56	46.06	89.75	-722.39	1377.55	924.39	835.79	10.43	
10500.00	9200.00	10754.06	9196.53	44.95	48.51	89.78	-728.16	1475.42	944.05	850.60	10.10	
10600.00	9200.00	10852.11	9196.93	47.38	50.99	89.81	-733.93	1573.30	963.72	865.36	9.80	
10700.00	9200.00	10950.16	9197.34	49.83	53.49	89.84	-739.71	1671.17	983.38	880.07	9.52	
10800.00	9200.00	11048.20	9197.74	52.32	56.01	89.87	-745.48	1769.05	1003.05	894.73	9.26	
10900.00	9200.00	11146.25	9198.15	54.82	58.55	89.89	-751.25	1866.92	1022.71	909.35	9.02	
11000.00	9200.00	11244.29	9198.56	57.34	61.10	89.92	-757.03	1964.80	1042.38	923.94	8.80	
11100.00	9200.00	11342.34	9198.96	59.88	63.67	89.94	-762.80	2062.67	1062.05	938.50	8.60	
11200.00	9200.00	11440.39	9199.37	62.44	66.25	89.97	-768.57	2160.55	1081.71	953.03	8.41	
11300.00	9200.00	11538.43	9199.77	65.01	68.84	89.99	-774.35	2258.42	1101.38	967.54	8.23	
11400.00	9200.00	11636.48	9200.18	67.59	71.43	90.01	-780.12	2356.30	1121.04	982.03	8.06	
11500.00	9200.00	11734.53	9200.58	70.18	74.04	90.03	-785.89	2454.17	1140.71	996.50	7.91	
11600.00	9200.00	11832.57	9200.99	72.78	76.65	90.05	-791.67	2552.05	1160.38	1010.96	7.77	
11700.00	9200.00	11930.62	9201.40	75.38	79.27	90.07	-797.44	2649.93	1180.05	1025.40	7.63	
11800.00	9200.00	12028.66	9201.80	78.00	81.90	90.09	-803.21	2747.80	1199.71	1039.83	7.50	
11900.00	9200.00	12126.71	9202.21	80.62	84.53	90.11	-808.99	2845.68	1219.38	1054.24	7.38	
12000.00	9200.00	12224.76	9202.61	83.25	87.16	90.12	-814.76	2943.55	1239.05	1068.65	7.27	
12100.00	9200.00	12322.80	9203.02	85.88	89.80	90.14	-820.53	3041.43	1258.71	1083.04	7.17	
12200.00	9200.00	12420.85	9203.42	88.52	92.45	90.16	-826.31	3139.30	1278.38	1097.43	7.06	
12300.00	9200.00	12518.90	9203.83	91.16	95.09	90.17	-832.08	3237.18	1298.05	1111.80	6.97	
12400.00	9200.00	12616.94	9204.24	93.81	97.75	90.19	-837.85	3335.05	1317.72	1126.17	6.88	
12500.00	9200.00	12714.99	9204.64	96.46	100.40	90.20	-843.63	3432.93	1337.39	1140.54	6.79	
12600.00	9200.00	12813.03	9205.05	99.11	103.06	90.22	-849.40	3530.80	1357.05	1154.89	6.71	
12700.00	9200.00	12911.08	9205.45	101.77	105.72	90.23	-855.17	3628.68	1376.72	1169.24	6.64	
12800.00	9200.00	13009.13	9205.86	104.43	108.38	90.25	-860.95	3726.55	1396.39	1183.59	6.56	
12900.00	9200.00	13107.17	9206.27	107.09	111.05	90.26	-866.72	3824.43	1416.06	1197.93	6.49	
13000.00	9200.00	13205.22	9206.67	109.76	113.71	90.27	-872.49	3922.30	1435.73	1212.26	6.42	
13100.00	9200.00	13303.27	9207.08	112.43	116.38	90.28	-878.27	4020.18	1455.39	1226.60	6.36	
13200.00	9200.00	13401.31	9207.48	115.10	119.05	90.30	-884.04	4118.05	1475.06	1240.92	6.30	
13300.00	9200.00	13499.36	9207.89	117.77	121.73	90.31	-889.81	4215.93	1494.73	1255.25	6.24	
13400.00	9200.00	13597.40	9208.29	120.44	124.40	90.32	-895.59	4313.80	1514.40	1269.57	6.19	
13500.00	9200.00	13695.45	9208.70	123.12	127.08	90.33	-901.36	4411.68	1534.07	1283.88	6.13	
13600.00	9200.00	13793.50	9209.11	125.80	129.75	90.34	-907.13	4509.56	1553.74	1298.20	6.08	
13700.00	9200.00	13891.54	9209.51	128.48	132.43	90.35	-912.90	4607.43	1573.40	1312.51	6.03	



Weatherford Anticollision Report



Weatherford

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Antares 23 Federal #1H
Reference Well: Antares 23 Federal #1H
Reference Wellpath:

Date: 7/10/2012

Time: 09:47:51

Page: 4

Co-ordinate(NE) Reference: Well: Antares 23 Federal #1H, Grid North
Vertical (TVD) Reference: SITE 3566.0

Db: Sybase

Site: Antares 23 Federal #2H
Well: Antares 23 Fed #2H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
13714.51	9200.00	13905.77	9209.57	128.87	132.82	90.35	-913.74	4621.64	1576.26	1314.59	6.02	

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: July 10, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Antares 23 Federal #1H
API Number: _____
Rig Name: JM Wright Unit #92H
Location: Eddy Co., NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 600683.490 USFT	Latitude 32.6503874 DEG
East/West 690769.770 USFT	Longitude -103.8478192 DEG
Grid Convergence: .26°	
Total Correction: +7.35°	

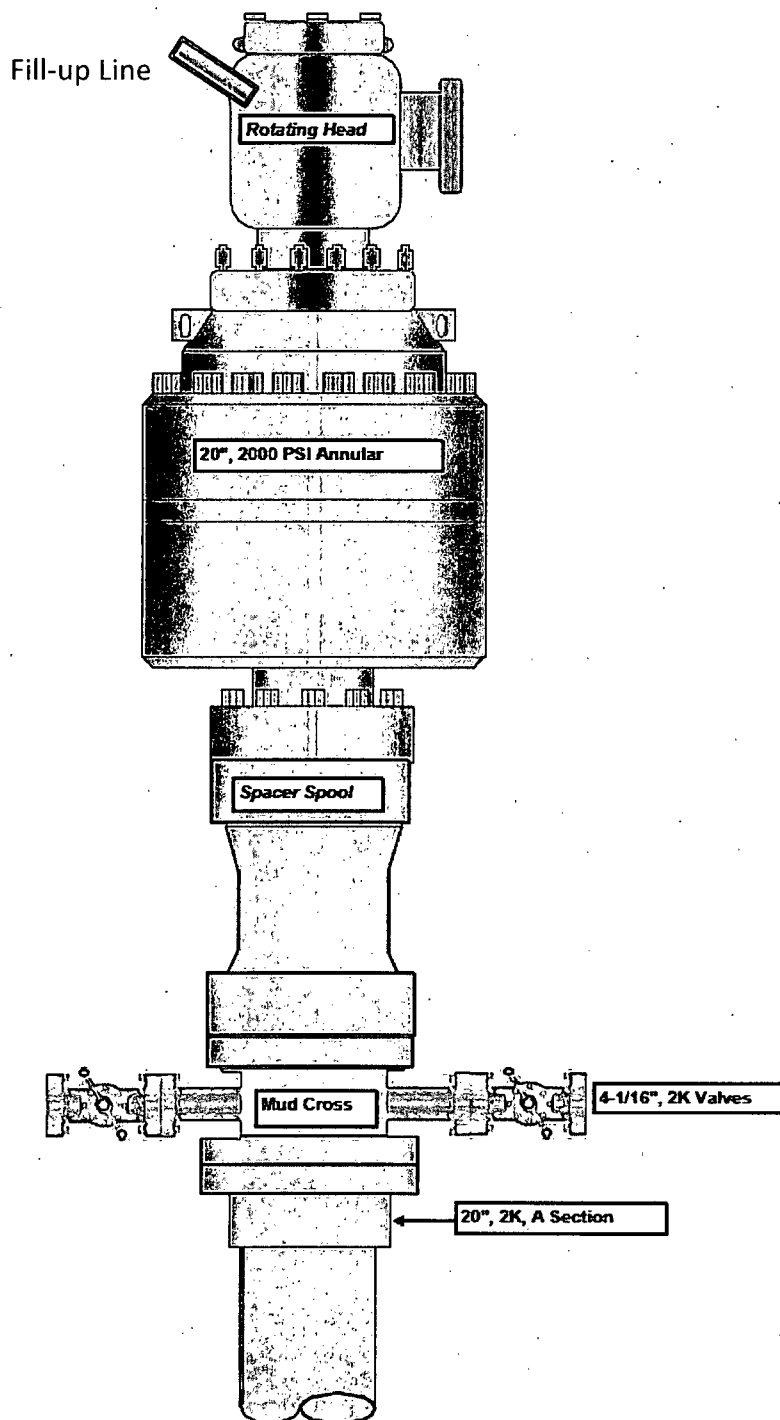
Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.65039° N	32° 39 min 1.395 sec
Longitude =	103.84782° W	103° 50 min 52.149 sec

Magnetic Declination =	7.61°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6592
Local Field Strength =	48756 nT	Magnetic Vector X = 23792 nT
Magnetic Dip =	60.51°	Magnetic Vector Y = 3180 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42438 nT
Spud Date =	Jul 15, 2012	Magnetic Vector H = 24003 nT

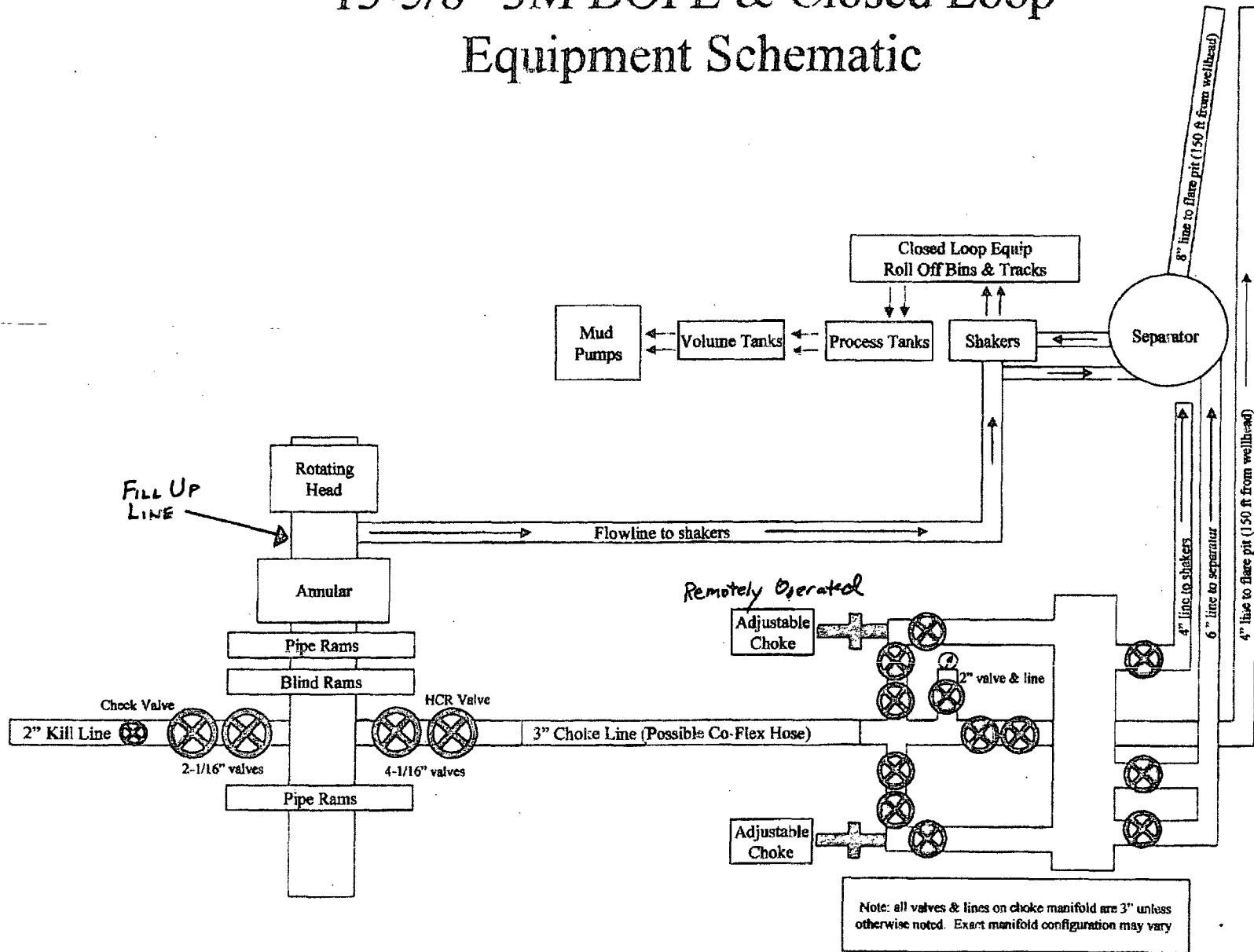
Signed: _____

Date: _____

20" 2K Annular



13-5/8" 3M BOPE & Closed Loop Equipment Schematic



NOTES REGARDING BLOWOUT PREVENTERS

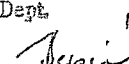
Devon Energy Production Company, LP

Antares 23 Fed Com 1H

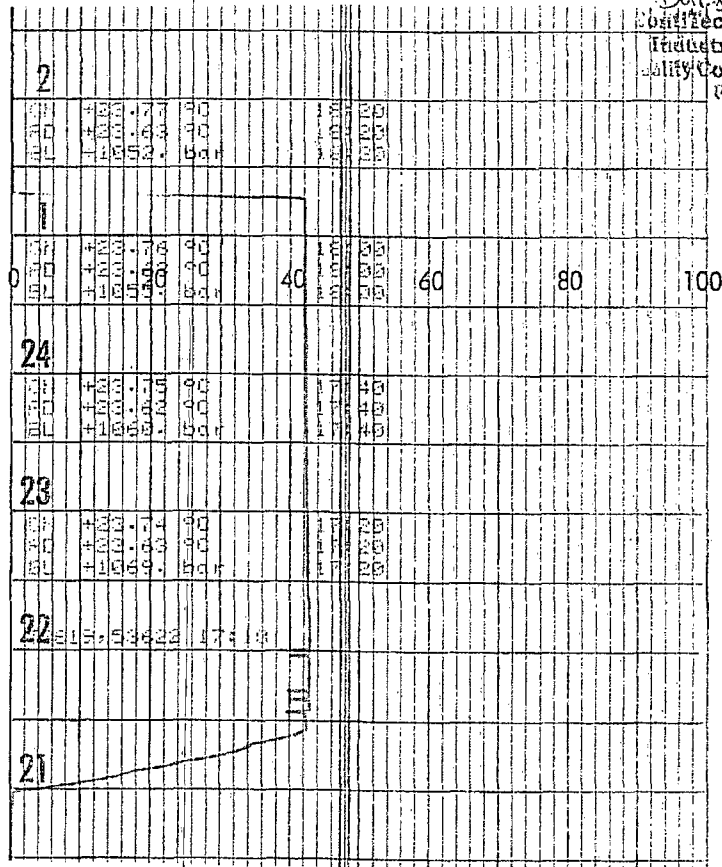
Surface Location: 1030' FNL & 225' FWL, Unit D, Sec 23 T19S R31E, Eddy, NM

Bottom Hole Location: 400' FNL & 340' FEL, Unit A, Sec 23 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.

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	Heat N°		
3" coupling with 4 1/16" Flange end	5503 2029	AISI 4130 AISI 4130	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 &



Signature
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(2)



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

Hydrogen Sulfide (H₂S) Contingency Plan

For

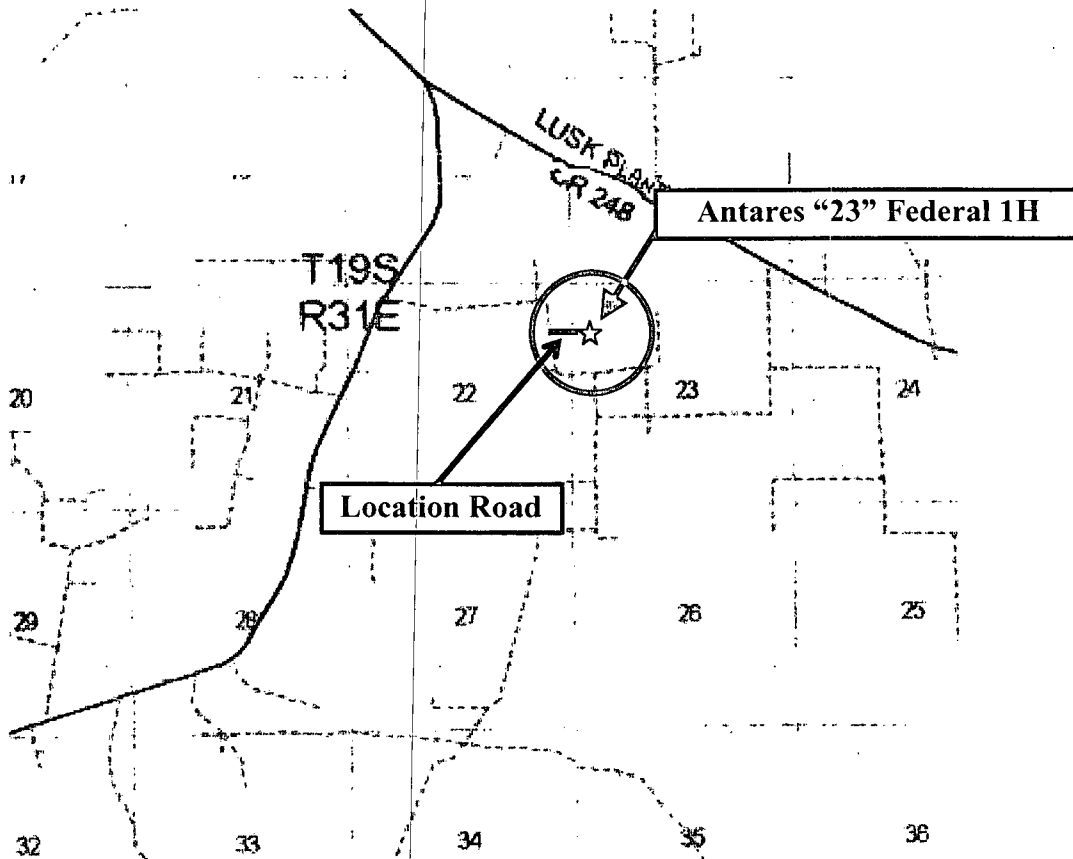
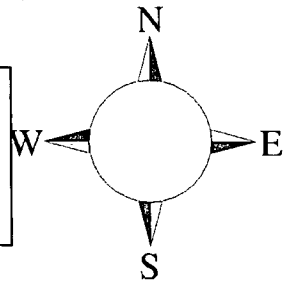
Antares "23" Federal 1H

**Sec-23, T-19S R-31E
1030' FNL & 225' FWL,
LAT. = 32.6503874°N (NAD83)
LONG = 103.8478192°W**

Eddy County NM

Antares "23" 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.



Assumed 100 ppm 3000' (2000' to 3000')
100 ppm H₂S concentration shall trigger activation of this plan.

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, West 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.

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.

Devon Energy Corp. Company Call List

<u>Artesia (575)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
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>	<u>Hobbs</u>
<u>County</u>	State Police
<u>(575)</u>	City Police
	Sheriff's Office
	Ambulance
	Fire Department
	LEPC (Local Emergency Planning Committee)
	NMOCD
	US Bureau of Land Management

<u>Eddy</u>	<u>Carlsbad</u>
<u>County</u>	State Police
<u>(575)</u>	City Police
	Sheriff's Office
	Ambulance
	Fire Department
	LEPC (Local Emergency Planning Committee)
	US Bureau of Land Management
	New Mexico Emergency Response Commission (Santa Fe) ...
	24 HR
	National Emergency Response Center (Washington, DC) ..

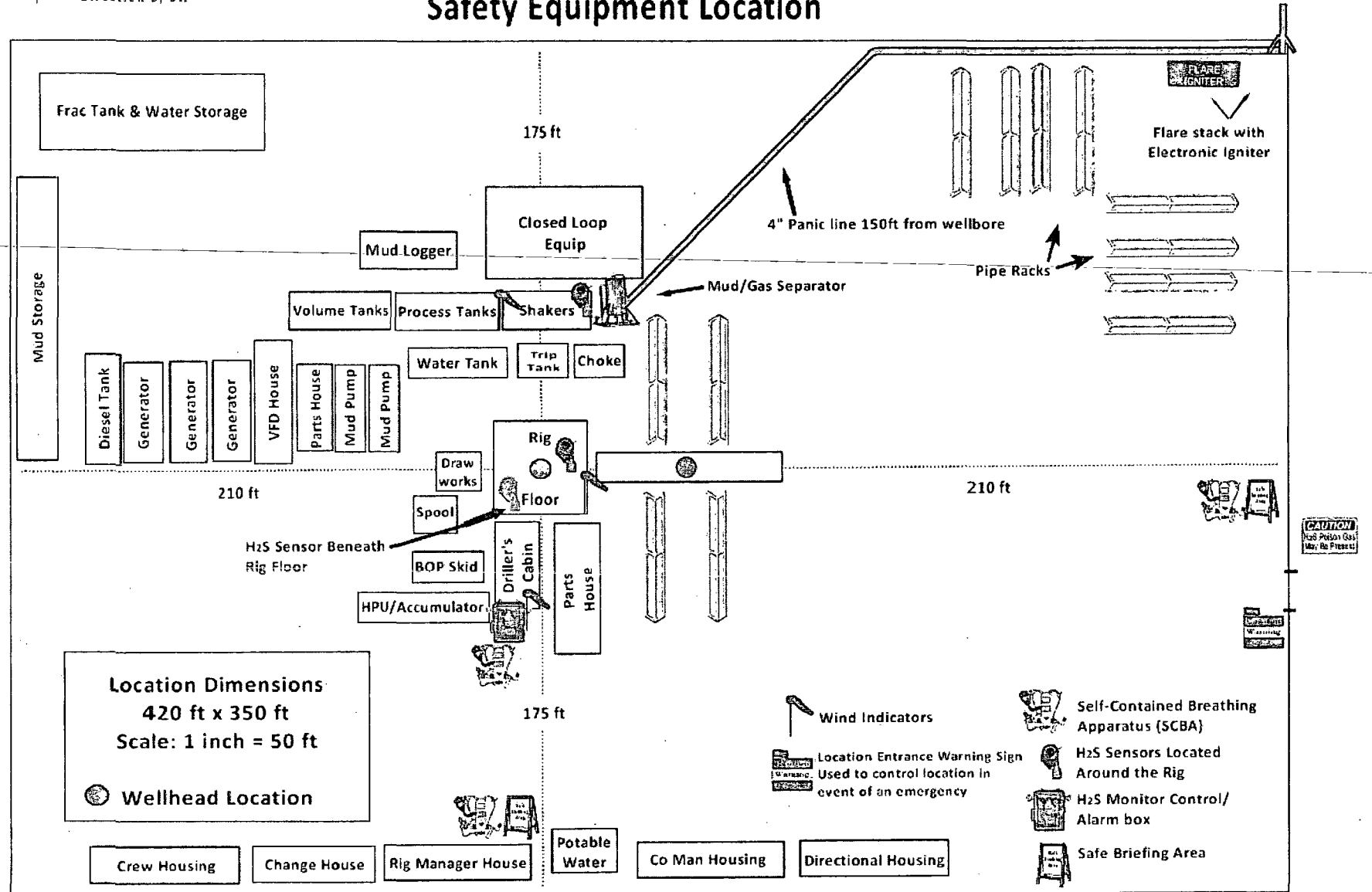
Emergency Services

	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



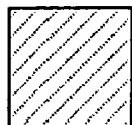
Devon Energy - 2 Well Pad Rig Location Layout Safety Equipment Location





Proposed Interim Site Reclamation

Devon Energy Production Co.
Antares 23 Fed Com 1H
1030' FNL & 225' FWL
Sec. 23-T19S-R31E
Eddy County, NM

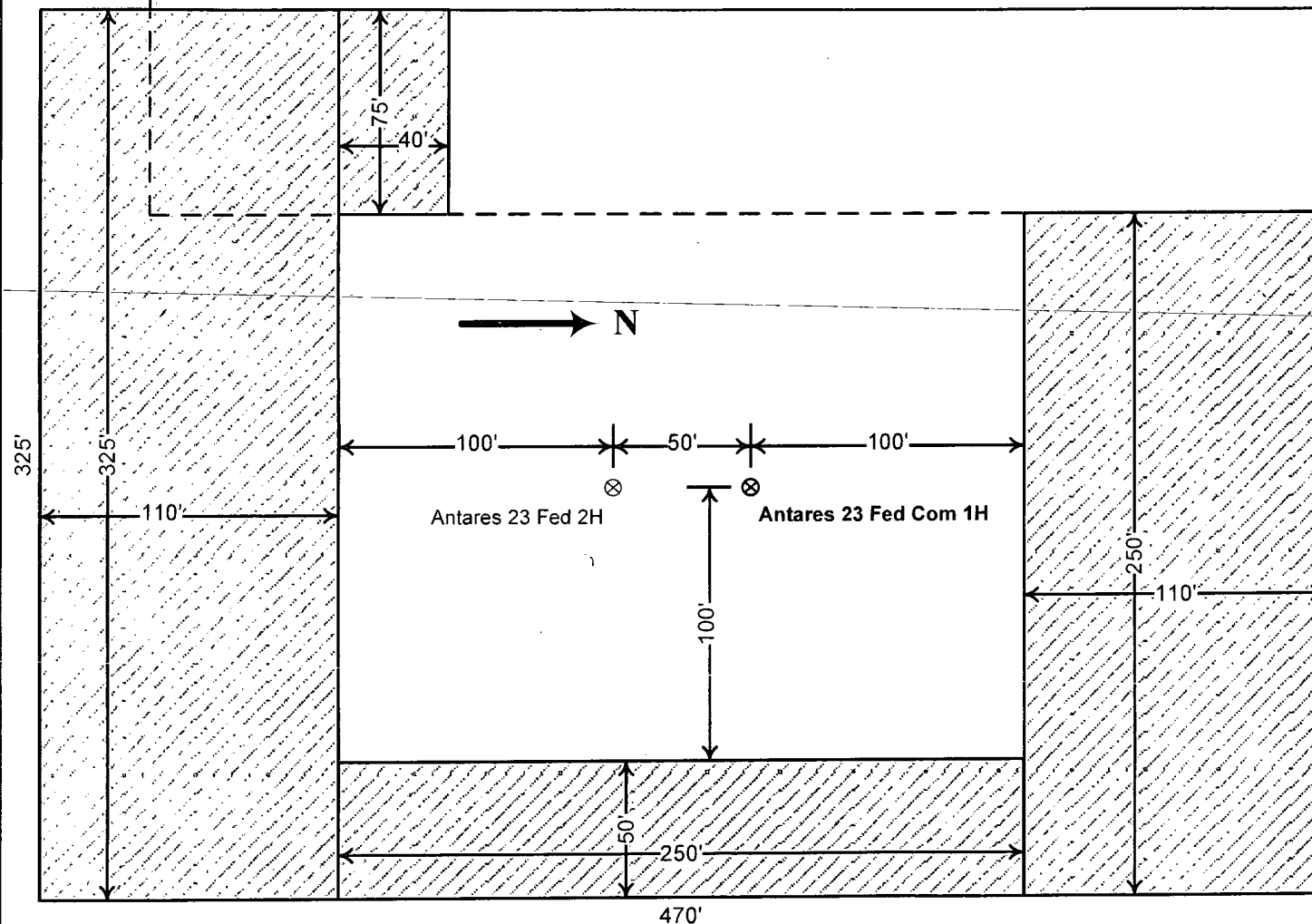


Proposed
Reclamation
Area



Scale: 1in = 60ft.

Proposed
Aquila 22 Fed
1H / 2H Pad



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company L. P.
LEASE NO.:	NM-0107697
WELL NAME & NO.:	Antares 23 Fed Com #1H
SURFACE HOLE FOOTAGE:	1030' FNL & 0225' FWL
BOTTOM HOLE FOOTAGE:	0400' FNL & 0340' FEL
LOCATION:	Section 23, 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
- Communitization Agreement

- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads

- ☐ **Road Section Diagram**

- ☒ **Drilling**
 - H₂S – Onshore Order #6
 - Logging Requirements
 - Waste Material and Fluids

- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines – not requested
 - Electric Lines – not requested

- ☐ **Interim Reclamation**

- ☒ **Final Abandonment & Reclamation**