

HOBBS OCD

OCD Hobbs 09 2013

RECEIVED

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

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. NM100567 & NM100568
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name Rattlesnake 13-12 Fed. Com # 14
2. Name of Operator Devon Energy Production Co., LP		7. If Unit or CA Agreement, Name and No. 539621
3a. Address 333 W. Sheridan Avenue OKC, OK 73102	3b. Phone No. (include area code) (405)-228-4248	8. Lease Name a Rattlesnake Unit 13-12 Fed. Com
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330' FSL & 330' FEL Unit P Sec 13-26S-34E At proposed prod. zone 330' FNL & 430' FEL Unit A Sec 12-26S-34E		9. API Well No. 30-225-40912-597597
14. Distance in miles and direction from nearest town or post office* Approximately 29 miles southwest of Eunice, NM.		10. Field and Pool, or Exploratory Delaware; Brushy Canyon Southwest
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 13-26S-34E
16. No. of acres in lease 567: 640 & 568: 1920		12. County or Parish Lea
17. Spacing Unit dedicated to this well E/2 E/2 of Sec 13 & E/2 E/2 of Sec 12		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 TVD: 8,975' MD: 18,642'
20. BLM/BIA Bond No. on file CO-1104 & NMB-000801		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3232.2' GL
22. Approximate date work will start*		23. Estimated duration 45 days

24. Attachments

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

- 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 <i>Patti Riechers</i>	Name (Printed/Typed) Patti Riechers	Date 08/03/2012
Title Sr. Staff Operations Technician		
Approved by (Signature) <i>/s/ James A. Amos</i>	Name (Printed/Typed)	Date JAN 4 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. *1-10-2013* APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

DRILLING PROGRAM

Devon Energy Production Company, LP

Rattlesnake Unit 13-12 Fed 1H

Surface Location: 330' FSL & 330' FEL, Unit P, Sec 13 T26S R34E, Eddy, NM

Bottom hole Location: 330' FNL & 430' FEL, Unit A, Sec 12 T26S R34E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

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

a. Fresh water	200'	
b. Rustler	727'	
c. Salado	915'	
d. Top of Salt	990'	
e. Castile	3531'	
f. Base of Salt	5180'	
g. Delaware	5191'	Oil/Gas
h. Bell Canyon	5236'	Oil
i. Cherry Canyon	6216'	Oil
j. Brushy Canyon	7,743'	Oil

Total Depth 8,975' TVD 18,642' MD

3. Casing Program: (All casing is new and API approved.)

<u>Hole</u> <u>Size</u>	<u>Hole</u> <u>Interval</u>	<u>OD</u> <u>Csg</u>	<u>Casing</u> <u>Interval</u>	<u>Weig</u> <u>ht</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0' - 800' 115'	13 3/8"	0' - 800'	48#	ST&C	H-40
12 1/4"	800' - 5200'	9 5/8"	0' - 5200'	40#	LT&C	HCK-55
8 3/4"	5200' - 8300'	5 1/2"	0' - 8300'	17#	LT&C	HCP110
8 3/4"	8300' - 18642'	5 1/2"	8300' - 18642'	17#	BT&C	HCP110

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u> <u>Factor</u>	<u>Burst Design</u> <u>Factor</u>	<u>Tension Design</u> <u>Factor</u>
13 3/8"	1.85	4.16	8.39
9 5/8"	1.57	1.46	18.99
5 1/2"	1.92	2.74	3.87
5 1/2"	1.78	2.54	1.72

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

13-3/8" Surface	Tail: 545 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg Yield: 1.35 cf/sk TOC @ surface
9-5/8" Intermediate	Lead: 1200 sacks (65:35) Class C Cement:Poz (Fly Ash): + 5% bwow Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 6% bwoc Bentonite + 70.9% Fresh Water, 12.9 ppg Yield: 1.85 cf/sk TOC @ surface Tail: 425 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Water, 14.8 ppg Yield: 1.33 cf/sk
5-1/2" Production	1st Lead: 235 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% bwoc Bentonite + 8 lb/sk Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 0.3% bwoc HR-601 + 0.3% bwoc Econolite + 77.2% Fresh Water, 11.8 ppg Yield: 2.52 cf/sk 2nd Lead: 390 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.125 lbs/sack Poly-E-Flake + 0.1% bwoc HR-601 + 74.1% Fresh Water, 12.5 ppg Yield: 1.95 cf/sk Tail: 2645 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg Yield: 1.22 cf/sk TOC @ 4700'

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

5. **Pressure Control Equipment:** The BOP system used to drill the intermediate and production 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 prior casing shoe.

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

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

6. **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 800' 1140	8.4-9.0	28-34	NC	Fresh Water
800' - 5,200'	9.8-10.2	28-32	NC	Brine
5,200' - 18,642'	8.6-9.0	28-32	NC-12	Fresh Water

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

7. Auxiliary Well Control and Monitoring Equipment:

- a. 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 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. Logging, Coring, and Testing Program: *See CERA*

- 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.

9. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3886 psi and Estimated BHT 142°. No H₂S is anticipated to be encountered.

10. Anticipated Starting Date and Duration of Operations:

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

Devon Energy Corporation

HALLIBURTON | Sperry Drilling



Project: Lea County, NM (NAD 83)
 Site: Rattlesnake 13-12 Fed
 Well: Rattlesnake 13-12 Fed 1H
 Wellbore: Wellbore #1
 Plan: Plan #1
 Rig: Cactus 126

SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3232.2' + 25'KB @ 3257.20ft (Cactus 126)
 Northing: 378404.53 Easting: 825532.79 Latitude: 32° 2' 13.189 N Longitude: 103° 24' 58.276 W

SECTION DETAILS

CASING DETAILS

TVD	MD	Name
500.00	500.00	Surface Csg
5200.00	5200.00	Intermediate Csg

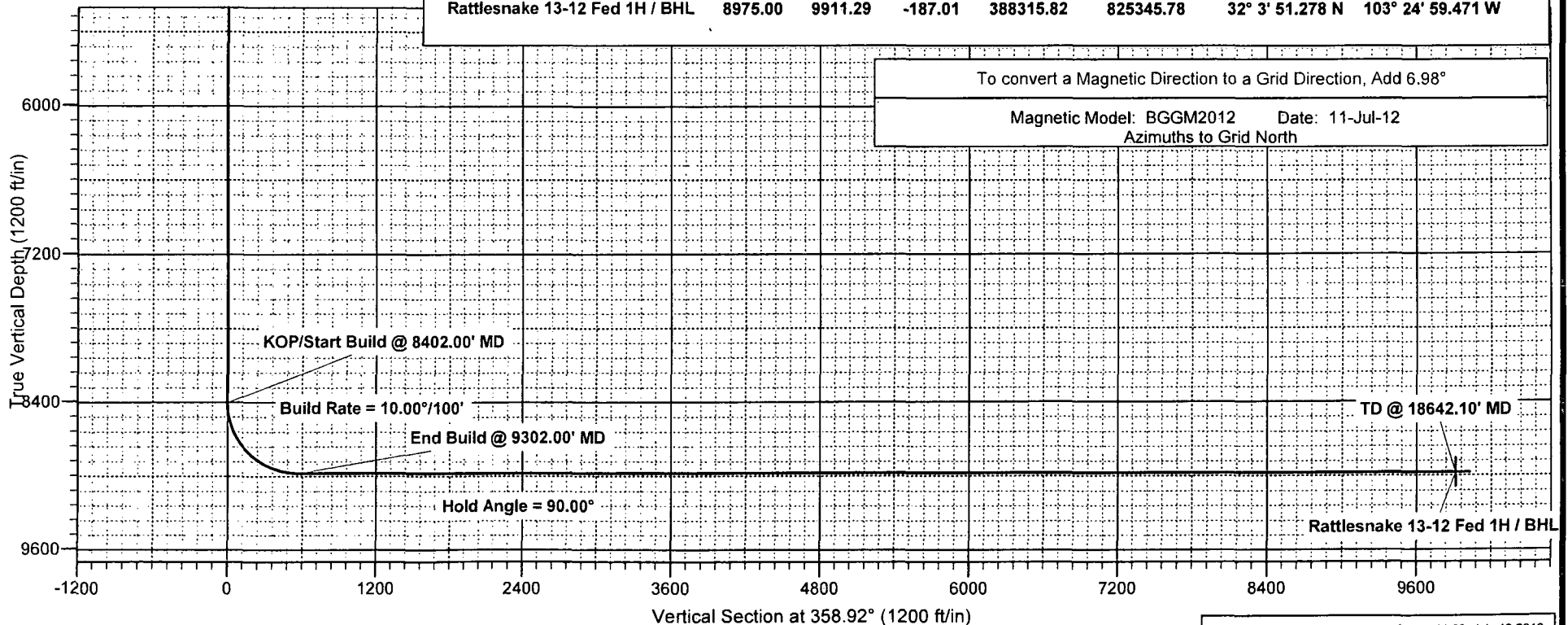
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8402.00	0.00	0.00	8402.00	0.00	0.00	0.00	0.00	0.00	KOP/Start Build
9302.00	90.00	358.92	8974.96	572.85	-10.81	10.00	358.92	572.96	End Build
18642.10	90.00	358.92	8975.00	9911.29	-187.01	0.00	0.00	9913.05	TD

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rattlesnake 13-12 Fed 1H / BHL	8975.00	9911.29	-187.01	388315.82	825345.78	32° 3' 51.278 N	103° 24' 59.471 W

To convert a Magnetic Direction to a Grid Direction, Add 6.98°

Magnetic Model: BGGM2012 Date: 11-Jul-12
 Azimuths to Grid North



Project: Lea County, NM (NAD 83)
 Site: Rattlesnake 13-12 Fed
 Well: Rattlesnake 13-12 Fed 1H
 Wellbore: Wellbore #1
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 Rig: Cactus 126

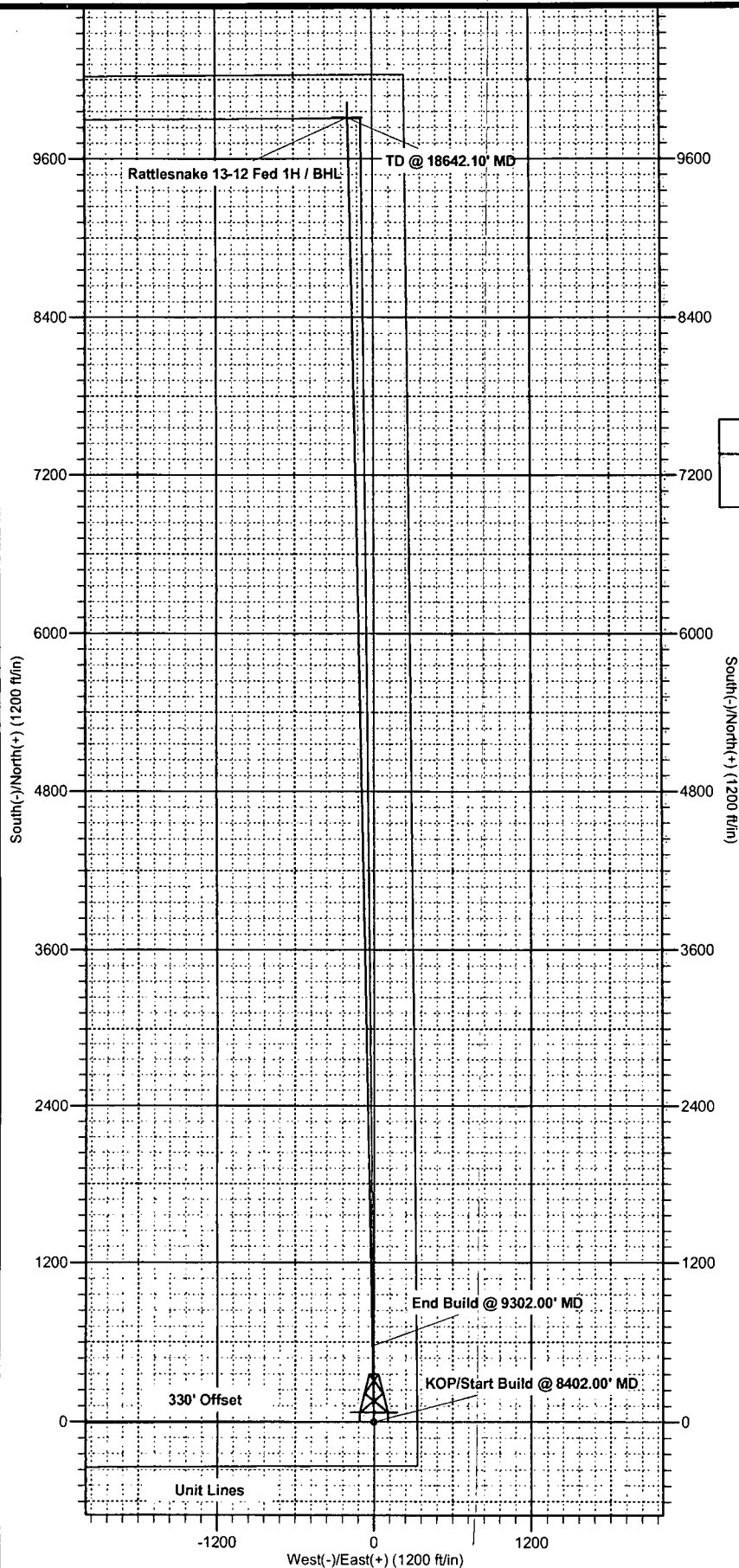
SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3232.2' + 25'KB @ 3257.20ft (Cactus 126)
 Northing Easting Latitude Longitude
 378404.53 825532.79 32° 2' 13.189 N 103° 24' 58.276 W

To convert a Magnetic Direction to a Grid Direction, Add 6.98°

Magnetic Model: BGGM2012 Date: 11-Jul-12
 Azimuths to Grid North

devon



Devon Energy Corporation

Lea County, NM (NAD 83)

Rattlesnake 13-12 Fed

Rattlesnake 13-12 Fed 1H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services

Proposal Report

12 July, 2012

Well Coordinates: 378,404.53 N, 825,532.79 E (32° 02' 13.19" N, 103° 24' 58.28" W)

Ground Level: 3,232.20 ft

Local Coordinate Origin:

Centered on Well Rattlesnake 13-12 Fed 1H

Viewing Datum:

GL 3232.2' + 25'KB @ 3257.20ft (Cactus 126)

TVDs to System:

N

North Reference:

Grid

Unit System:

API - US Survey Feet

Version: 2003.16 Build: 431

HALLIBURTON

Plan Report for Rattlesnake 13-12 Fed 1H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Csg										
915.00	0.00	0.00	915.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Salt										
5,180.00	0.00	0.00	5,180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt										
5,191.00	0.00	0.00	5,191.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Formation 5										
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intermediate Csg										
8,402.00	0.00	0.00	8,402.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP/Start Build @ 8402.00' MD										
8,402.01	0.00	358.92	8,402.01	0.00	0.00	0.00	0.00	0.00	0.00	358.92
Build Rate = 10.00°/100'										
8,500.00	9.80	358.92	8,499.52	8.36	-0.16	8.36	10.00	10.00	0.00	358.92
8,600.00	19.80	358.92	8,596.08	33.87	-0.64	33.87	10.00	10.00	0.00	0.00
8,700.00	29.80	358.92	8,686.75	75.75	-1.43	75.76	10.00	10.00	0.00	0.00
8,800.00	39.80	358.92	8,768.76	132.74	-2.50	132.76	10.00	10.00	0.00	0.00
8,900.00	49.80	358.92	8,839.62	203.10	-3.83	203.14	10.00	10.00	0.00	0.00
9,000.00	59.80	358.92	8,897.19	284.70	-5.37	284.75	10.00	10.00	0.00	0.00
9,100.00	69.80	358.92	8,939.72	375.05	-7.08	375.12	10.00	10.00	0.00	0.00
9,200.00	79.80	358.92	8,965.90	471.41	-8.89	471.50	10.00	10.00	0.00	0.00
9,300.00	89.80	358.92	8,974.95	570.86	-10.77	570.96	10.00	10.00	0.00	0.00
9,302.00	90.00	358.92	8,974.96	572.86	-10.81	572.96	9.99	9.99	0.00	0.00
End Build @ 9302.00' MD - Hold Angle = 90.00°										
9,400.00	90.00	358.92	8,974.96	670.84	-12.66	670.96	0.00	0.00	0.00	0.00
9,500.00	90.00	358.92	8,974.96	770.82	-14.54	770.96	0.00	0.00	0.00	0.00
9,600.00	90.00	358.92	8,974.96	870.80	-16.43	870.96	0.00	0.00	0.00	0.00
9,700.00	90.00	358.92	8,974.96	970.79	-18.32	970.96	0.00	0.00	0.00	0.00
9,800.00	90.00	358.92	8,974.96	1,070.77	-20.20	1,070.96	0.00	0.00	0.00	0.00
9,900.00	90.00	358.92	8,974.96	1,170.75	-22.09	1,170.96	0.00	0.00	0.00	0.00
10,000.00	90.00	358.92	8,974.96	1,270.73	-23.98	1,270.96	0.00	0.00	0.00	0.00
10,100.00	90.00	358.92	8,974.96	1,370.71	-25.86	1,370.96	0.00	0.00	0.00	0.00
10,200.00	90.00	358.92	8,974.96	1,470.70	-27.75	1,470.96	0.00	0.00	0.00	0.00
10,300.00	90.00	358.92	8,974.96	1,570.68	-29.64	1,570.96	0.00	0.00	0.00	0.00
10,400.00	90.00	358.92	8,974.96	1,670.66	-31.52	1,670.96	0.00	0.00	0.00	0.00
10,500.00	90.00	358.92	8,974.96	1,770.64	-33.41	1,770.96	0.00	0.00	0.00	0.00
10,600.00	90.00	358.92	8,974.96	1,870.62	-35.30	1,870.96	0.00	0.00	0.00	0.00
10,700.00	90.00	358.92	8,974.96	1,970.61	-37.18	1,970.96	0.00	0.00	0.00	0.00
10,800.00	90.00	358.92	8,974.96	2,070.59	-39.07	2,070.96	0.00	0.00	0.00	0.00
10,900.00	90.00	358.92	8,974.97	2,170.57	-40.96	2,170.96	0.00	0.00	0.00	0.00
11,000.00	90.00	358.92	8,974.97	2,270.55	-42.84	2,270.96	0.00	0.00	0.00	0.00
11,100.00	90.00	358.92	8,974.97	2,370.54	-44.73	2,370.96	0.00	0.00	0.00	0.00
11,200.00	90.00	358.92	8,974.97	2,470.52	-46.61	2,470.96	0.00	0.00	0.00	0.00
11,300.00	90.00	358.92	8,974.97	2,570.50	-48.50	2,570.96	0.00	0.00	0.00	0.00
11,400.00	90.00	358.92	8,974.97	2,670.48	-50.39	2,670.96	0.00	0.00	0.00	0.00
11,500.00	90.00	358.92	8,974.97	2,770.46	-52.27	2,770.96	0.00	0.00	0.00	0.00
11,600.00	90.00	358.92	8,974.97	2,870.45	-54.16	2,870.96	0.00	0.00	0.00	0.00
11,700.00	90.00	358.92	8,974.97	2,970.43	-56.05	2,970.96	0.00	0.00	0.00	0.00
11,800.00	90.00	358.92	8,974.97	3,070.41	-57.93	3,070.96	0.00	0.00	0.00	0.00
11,900.00	90.00	358.92	8,974.97	3,170.39	-59.82	3,170.96	0.00	0.00	0.00	0.00
12,000.00	90.00	358.92	8,974.97	3,270.38	-61.71	3,270.96	0.00	0.00	0.00	0.00
12,100.00	90.00	358.92	8,974.97	3,370.36	-63.59	3,370.96	0.00	0.00	0.00	0.00
12,200.00	90.00	358.92	8,974.97	3,470.34	-65.48	3,470.96	0.00	0.00	0.00	0.00
12,300.00	90.00	358.92	8,974.97	3,570.32	-67.37	3,570.96	0.00	0.00	0.00	0.00

HALLIBURTON

Plan Report for Rattlesnake 13-12 Fed 1H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
12,400.00	90.00	358.92	8,974.97	3,670.30	-69.25	3,670.96	0.00	0.00	0.00	0.00
12,500.00	90.00	358.92	8,974.97	3,770.29	-71.14	3,770.96	0.00	0.00	0.00	0.00
12,600.00	90.00	358.92	8,974.97	3,870.27	-73.03	3,870.96	0.00	0.00	0.00	0.00
12,700.00	90.00	358.92	8,974.97	3,970.25	-74.91	3,970.96	0.00	0.00	0.00	0.00
12,800.00	90.00	358.92	8,974.97	4,070.23	-76.80	4,070.96	0.00	0.00	0.00	0.00
12,900.00	90.00	358.92	8,974.97	4,170.22	-78.69	4,170.96	0.00	0.00	0.00	0.00
13,000.00	90.00	358.92	8,974.97	4,270.20	-80.57	4,270.96	0.00	0.00	0.00	0.00
13,100.00	90.00	358.92	8,974.97	4,370.18	-82.46	4,370.96	0.00	0.00	0.00	0.00
13,200.00	90.00	358.92	8,974.98	4,470.16	-84.34	4,470.96	0.00	0.00	0.00	0.00
13,300.00	90.00	358.92	8,974.98	4,570.14	-86.23	4,570.96	0.00	0.00	0.00	0.00
13,400.00	90.00	358.92	8,974.98	4,670.13	-88.12	4,670.96	0.00	0.00	0.00	0.00
13,500.00	90.00	358.92	8,974.98	4,770.11	-90.00	4,770.96	0.00	0.00	0.00	0.00
13,600.00	90.00	358.92	8,974.98	4,870.09	-91.89	4,870.96	0.00	0.00	0.00	0.00
13,700.00	90.00	358.92	8,974.98	4,970.07	-93.78	4,970.96	0.00	0.00	0.00	0.00
13,800.00	90.00	358.92	8,974.98	5,070.06	-95.66	5,070.96	0.00	0.00	0.00	0.00
13,900.00	90.00	358.92	8,974.98	5,170.04	-97.55	5,170.96	0.00	0.00	0.00	0.00
14,000.00	90.00	358.92	8,974.98	5,270.02	-99.44	5,270.96	0.00	0.00	0.00	0.00
14,100.00	90.00	358.92	8,974.98	5,370.00	-101.32	5,370.96	0.00	0.00	0.00	0.00
14,200.00	90.00	358.92	8,974.98	5,469.98	-103.21	5,470.96	0.00	0.00	0.00	0.00
14,300.00	90.00	358.92	8,974.98	5,569.97	-105.10	5,570.96	0.00	0.00	0.00	0.00
14,400.00	90.00	358.92	8,974.98	5,669.95	-106.98	5,670.96	0.00	0.00	0.00	0.00
14,500.00	90.00	358.92	8,974.98	5,769.93	-108.87	5,770.96	0.00	0.00	0.00	0.00
14,600.00	90.00	358.92	8,974.98	5,869.91	-110.76	5,870.96	0.00	0.00	0.00	0.00
14,700.00	90.00	358.92	8,974.98	5,969.90	-112.64	5,970.96	0.00	0.00	0.00	0.00
14,800.00	90.00	358.92	8,974.98	6,069.88	-114.53	6,070.96	0.00	0.00	0.00	0.00
14,900.00	90.00	358.92	8,974.98	6,169.86	-116.42	6,170.96	0.00	0.00	0.00	0.00
15,000.00	90.00	358.92	8,974.98	6,269.84	-118.30	6,270.96	0.00	0.00	0.00	0.00
15,100.00	90.00	358.92	8,974.98	6,369.82	-120.19	6,370.96	0.00	0.00	0.00	0.00
15,200.00	90.00	358.92	8,974.98	6,469.81	-122.07	6,470.96	0.00	0.00	0.00	0.00
15,300.00	90.00	358.92	8,974.98	6,569.79	-123.96	6,570.96	0.00	0.00	0.00	0.00
15,400.00	90.00	358.92	8,974.99	6,669.77	-125.85	6,670.96	0.00	0.00	0.00	0.00
15,500.00	90.00	358.92	8,974.99	6,769.75	-127.73	6,770.96	0.00	0.00	0.00	0.00
15,600.00	90.00	358.92	8,974.99	6,869.74	-129.62	6,870.96	0.00	0.00	0.00	0.00
15,700.00	90.00	358.92	8,974.99	6,969.72	-131.51	6,970.96	0.00	0.00	0.00	0.00
15,800.00	90.00	358.92	8,974.99	7,069.70	-133.39	7,070.96	0.00	0.00	0.00	0.00
15,900.00	90.00	358.92	8,974.99	7,169.68	-135.28	7,170.96	0.00	0.00	0.00	0.00
16,000.00	90.00	358.92	8,974.99	7,269.66	-137.17	7,270.96	0.00	0.00	0.00	0.00
16,100.00	90.00	358.92	8,974.99	7,369.65	-139.05	7,370.96	0.00	0.00	0.00	0.00
16,200.00	90.00	358.92	8,974.99	7,469.63	-140.94	7,470.96	0.00	0.00	0.00	0.00
16,300.00	90.00	358.92	8,974.99	7,569.61	-142.83	7,570.96	0.00	0.00	0.00	0.00
16,400.00	90.00	358.92	8,974.99	7,669.59	-144.71	7,670.96	0.00	0.00	0.00	0.00
16,500.00	90.00	358.92	8,974.99	7,769.57	-146.60	7,770.96	0.00	0.00	0.00	0.00
16,600.00	90.00	358.92	8,974.99	7,869.56	-148.49	7,870.96	0.00	0.00	0.00	0.00
16,700.00	90.00	358.92	8,974.99	7,969.54	-150.37	7,970.96	0.00	0.00	0.00	0.00
16,800.00	90.00	358.92	8,974.99	8,069.52	-152.26	8,070.96	0.00	0.00	0.00	0.00
16,900.00	90.00	358.92	8,974.99	8,169.50	-154.15	8,170.96	0.00	0.00	0.00	0.00
17,000.00	90.00	358.92	8,974.99	8,269.49	-156.03	8,270.96	0.00	0.00	0.00	0.00
17,100.00	90.00	358.92	8,974.99	8,369.47	-157.92	8,370.96	0.00	0.00	0.00	0.00
17,200.00	90.00	358.92	8,974.99	8,469.45	-159.80	8,470.96	0.00	0.00	0.00	0.00
17,300.00	90.00	358.92	8,974.99	8,569.43	-161.69	8,570.96	0.00	0.00	0.00	0.00
17,400.00	90.00	358.92	8,974.99	8,669.41	-163.58	8,670.96	0.00	0.00	0.00	0.00
17,500.00	90.00	358.92	8,974.99	8,769.40	-165.46	8,770.96	0.00	0.00	0.00	0.00
17,600.00	90.00	358.92	8,975.00	8,869.38	-167.35	8,870.96	0.00	0.00	0.00	0.00
17,700.00	90.00	358.92	8,975.00	8,969.36	-169.24	8,970.96	0.00	0.00	0.00	0.00
17,800.00	90.00	358.92	8,975.00	9,069.34	-171.12	9,070.96	0.00	0.00	0.00	0.00
17,900.00	90.00	358.92	8,975.00	9,169.33	-173.01	9,170.96	0.00	0.00	0.00	0.00
18,000.00	90.00	358.92	8,975.00	9,269.31	-174.90	9,270.96	0.00	0.00	0.00	0.00
18,100.00	90.00	358.92	8,975.00	9,369.29	-176.78	9,370.96	0.00	0.00	0.00	0.00
18,200.00	90.00	358.92	8,975.00	9,469.27	-178.67	9,470.96	0.00	0.00	0.00	0.00
18,300.00	90.00	358.92	8,975.00	9,569.25	-180.56	9,570.96	0.00	0.00	0.00	0.00

HALLIBURTON

Plan Report for Rattlesnake 13-12 Fed 1H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth (°)
18,400.00	90.00	358.92	8,975.00	9,669.24	-182.44	9,670.96	0.00	0.00	0.00	0.00
18,500.00	90.00	358.92	8,975.00	9,769.22	-184.33	9,770.96	0.00	0.00	0.00	0.00
18,600.00	90.00	358.92	8,975.00	9,869.20	-186.22	9,870.96	0.00	0.00	0.00	0.00
18,642.10	90.00	358.92	8,975.00	9,911.29	-187.01	9,913.05	0.00	0.00	0.00	0.00

TD @ 18642.10' MD

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,402.00	8,402.00	0.00	0.00	KOP/Start Build @ 8402.00' MD
8,402.01	8,402.01	0.00	0.00	Build Rate = 10.00°/100'
9,302.00	8,974.96	572.85	-10.81	End Build @ 9302.00' MD
9,302.00	8,974.96	572.86	-10.81	Hold Angle = 90.00°
18,642.10	8,975.00	9,911.29	-187.01	TD @ 18642.10' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	Origin +E/-W (ft)	Start TVD (ft)
TD	No Target (Freehand)	358.92	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	18,642.10	Plan #1	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
500.00	500.00	Surface Csg	13-3/8	17-1/2
5,200.00	5,200.00	Intermediate Csg	9-5/8	12-1/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
25.00	25.00	Rustler		0.00	358.92
915.00	915.00	Salt		0.00	358.92
5,180.00	5,180.00	Base Salt		0.00	358.92
5,191.00	5,191.00	Formation 5		0.00	358.92

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Rattlesnake 13-12 Fed 1H / BHL	8,975.00	9,911.29	-187.01	Point

**North Reference Sheet for Rattlesnake 13-12 Fed - Rattlesnake 13-12 Fed 1H -
Wellbore #1**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3232.2' + 25'KB @ 3257.20ft (Cactus 126). Northing and Easting are relative to Rattlesnake 13-12 Fed 1H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33°, Longitude Origin: 0° 0' 0.000 E°, Latitude Origin: 0° 0' 0.000 N°

False Easting: 541,337.50ft, False Northing: 0.00ft, Scale Reduction: 1.00000159

Grid Coordinates of Well: 378,404.53 ft N, 825,532.79 ft E

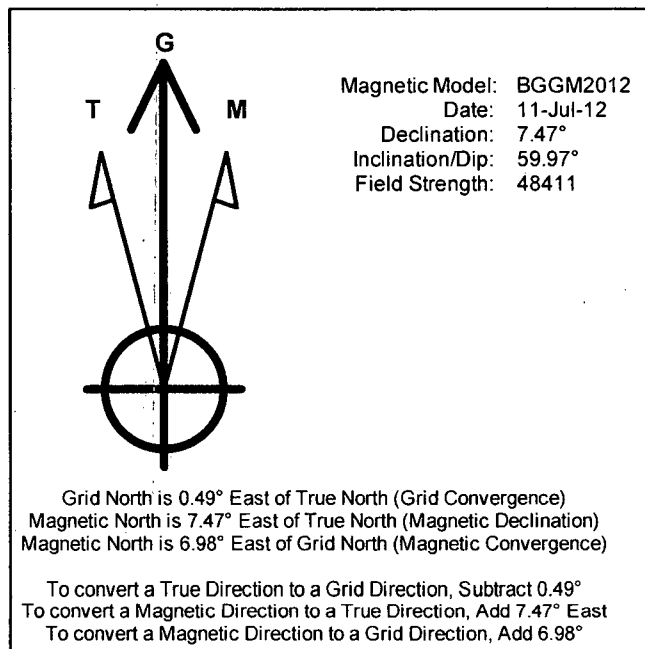
Geographical Coordinates of Well: 32° 02' 13.19" N, 103° 24' 58.28" W

Grid Convergence at Surface is: 0.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 18,642.10ft

the Bottom Hole Displacement is 9,913.05ft in the Direction of 358.92° (Grid).

Magnetic Convergence at surface is: -6.98° (11 July 2012, , BGGM2012)



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP

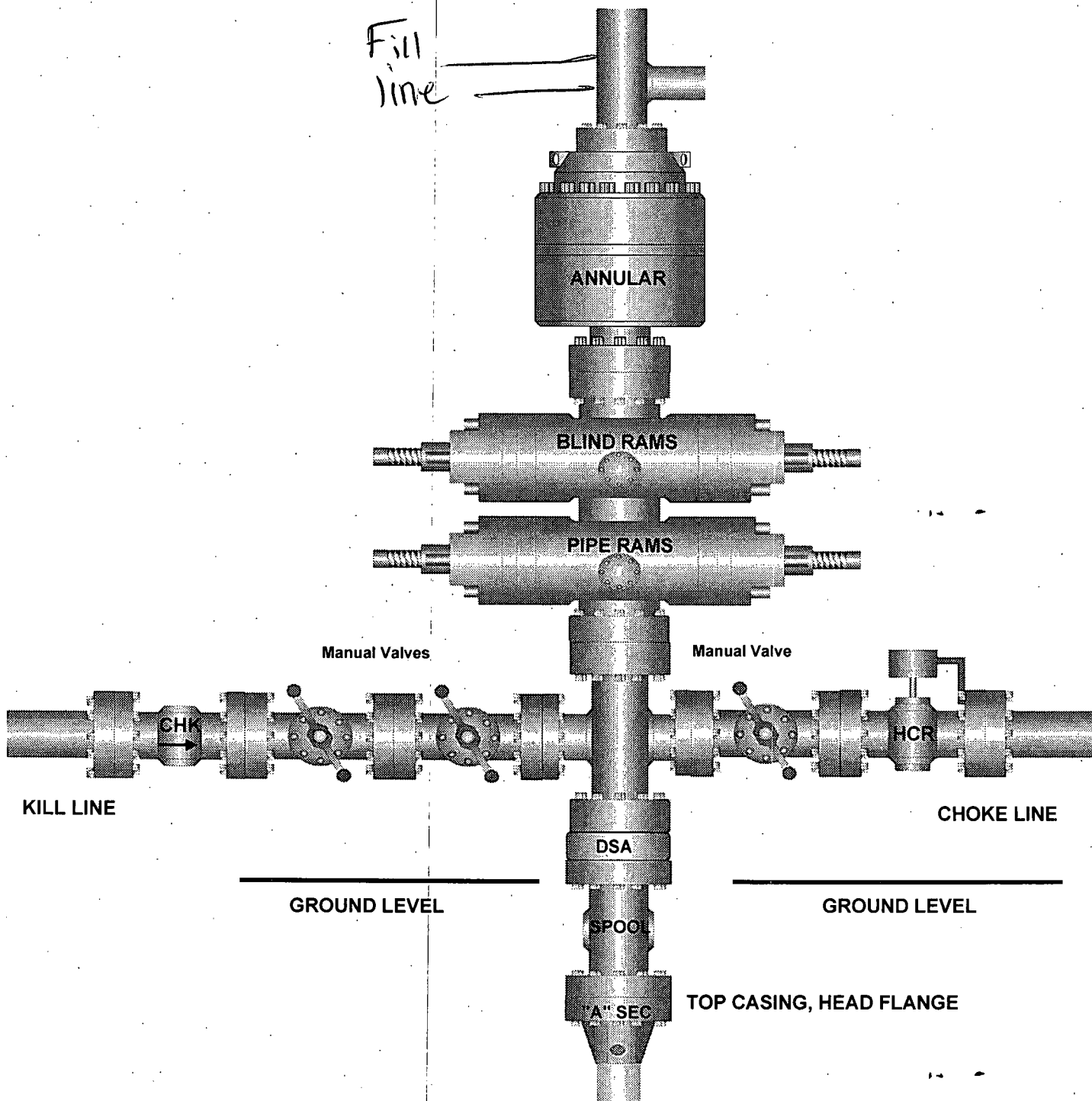
Rattlesnake 13-12 Fed 1H

Surface Location: 330' FSL & 330' FEL, Unit P, Sec 13 T26S R34E, Lea, NM

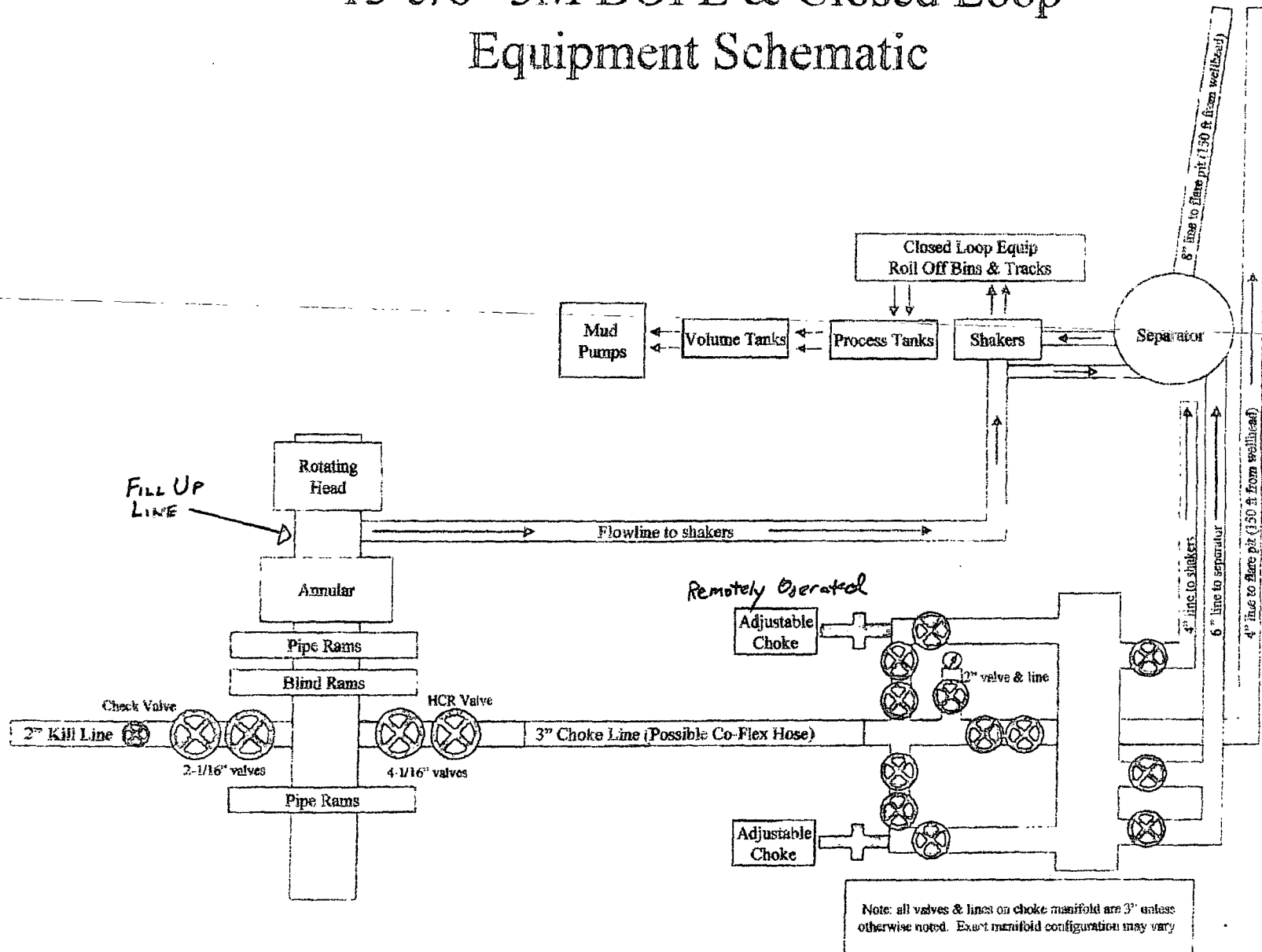
Bottom Hole Location: 330' FNL & 430' FEL, Unit A, Sec 12 T26S R34E, Eddy, NM

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

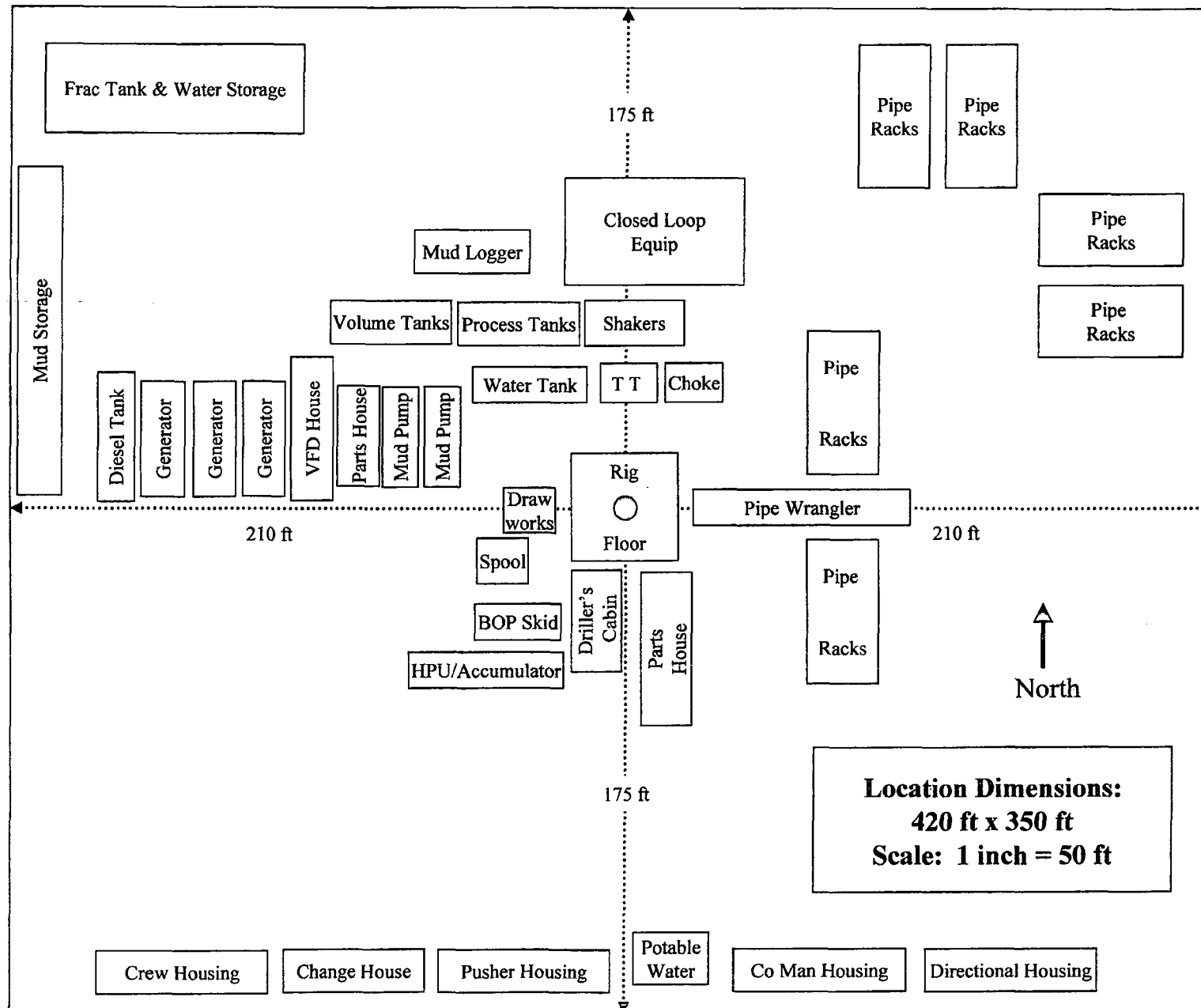
13-5/8" x 3,000 psi BOP Stack



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



H&P Flex Rig Location Layout





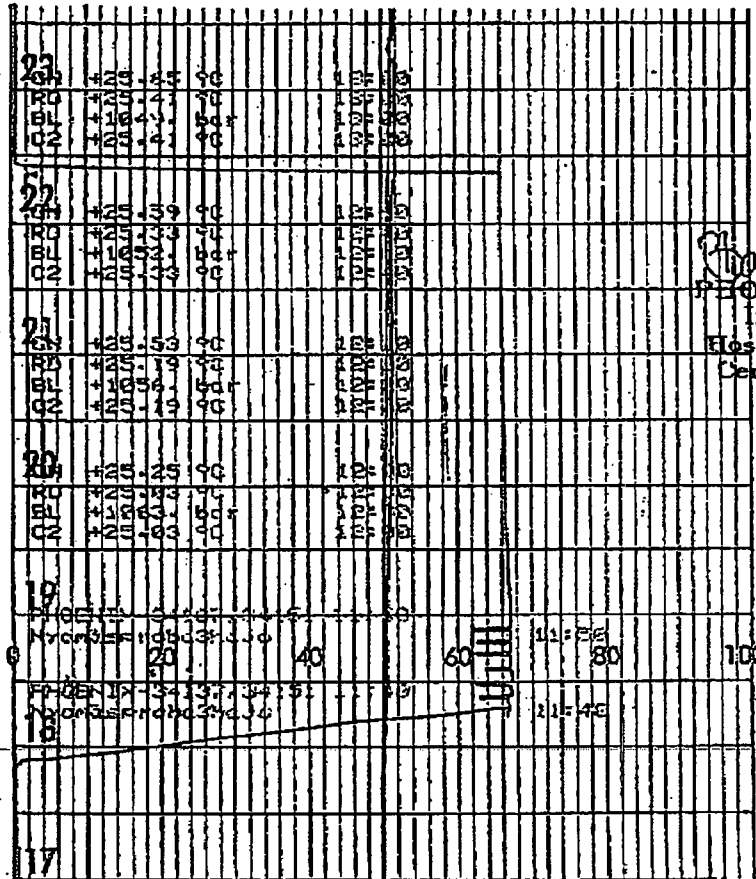
QUALITY DOCUMENT

**PHOENIX RUBBER
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Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurustentorg.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 555	
PURCHASER: Phoenix Beattie Co.				P.O. N°: 1519FA-871	
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 34137		NOMINAL / ACTUAL LENGTH: 11,43 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 = 16 MPa					
COUPLINGS					
Type	Serial N°	Quality	Heat N°		
3" coupling with 4 1/16" Flange end	714 715	AISI 4130	C7626		
		AISI 4130	47357		
API Spec 16 C Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date: 30. April. 2002.	Inspector		Quality Control PHOENIX RUBBER Industrial Ltd. Hose Inspection and Pressure Testing Department		



[Signature]
 PHOENIX RUBBER
 Industrial Ltd.
 Hose Inspection and
 Certification Dept.

VERIFIED TRUE COPY
 PHOENIX RUBBER G.P.