

AUG 05 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

Split Estate

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. LC-065194
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Endurance Resources, LLC		7. If Unit or CA Agreement, Name and No.
3a. Address 203 West Wall Suite 1000 Midland, Texas 79701		8. Lease Name and Well No. Starcaster 18 Fed - 4H
3b. Phone No. (include area code) 432-242-4680		9. API Well No. 30-025-42025
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330' FNL & 660' FEL At proposed prod. zone 330' FSL & 660' FEL		10. Field and Pool, or Exploratory Bell Lake; Bone Spring, North (5150)
14. Distance in miles and direction from nearest town or post office* 26 miles Northwest of Jal, New Mexico		11. Sec., T. R. M. or Blk. and Survey or Area Sec 18-23s-34e
15. Distance from proposed* 330' location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of acres in lease 320	12. County or Parish Lea
17. Spacing Unit dedicated to this well 160	13. State NM	
18. Distance from proposed location* 4650' to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 14,944'	20. BLM/BIA Bond No. on file NMB000640
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3478' GL	22. Approximate date work will start* 05/01/2014	23. Estimated duration 45 days

24. Attachments

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

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

25. Signature <i>[Signature]</i>	Name (Printed/Typed) M.A. Sirgo III	Date 12/23/2013
Title Engineer		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 8/5/14
Title for 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

KZ
08/06/14Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

AUG 07 2014

PM

STATE OF NEW MEXICO)
 :SS
COUNTY OF LEA)

Before me, a notary public in and for said County and State, on this 31st day of March, 2014, personally appeared **Bill Angell**, Managing Member of Limestone Livestock, LLC to me known to be the identical person who executed the foregoing instrument and acknowledged to me that he executed same as his free and voluntary act for the uses and purposes therein set forth.

My Commission Expires:

5-19-2014

[Signature]
Notary Public

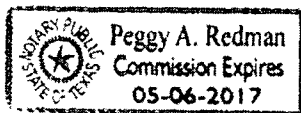
STATE OF TEXAS)
 :SS
COUNTY OF MIDLAND)

Before me, a notary public in and for said County and State, on this 5th day of March, 2014, personally appeared **Donald G. Ritter**, CEO of Tritex Energy A, LP, a Texas limited partnership, to me known to be the identical person who executed the foregoing instrument and acknowledged to me that he/she executed same as his/her free and voluntary act for the uses and purposes therein set forth.

My Commission Expires:

05-06-2017

Peggy A. Redman





Endurance Resources LLC

DRILLING & OPERATIONS PROGRAM

Starcaster 18 Fed 4H

SHL: 330' FNL & 660' FEL (A)

BHL: 330' FSL & 660' FEL (P)

Sec 18-23S-34E

Lea Co, NM

1. Geological Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geological Markers

Fresh Water	311'
Rustler	940'
Top of Salt	1,290'
Lamar Limestone	4,950'
Delaware	4,990' Oil
Bone Spring	8,490'
1 st Bone Spring	9,810' Oil
2 nd Bone Spring	10,150' Oil
TVD:	10,450' ; MD: 14,944'

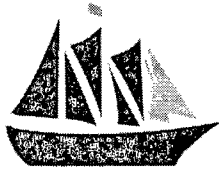
3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

The estimated depths at which water, oil and gas will be encountered are as follows:

Water: Average depth to water: 311'. Minimum depth: 255'. Max: 430'. As reported from the New Mexico Office of the State Engineer website.

Oil & Gas: 5,150' – 10,500' (Delaware through Bone Spring)

No other formations are expected to give up oil, gas, or fresh water in measurable quantities.



ENDURANCE
RESOURCES, LLC

4. Proposed Casing Program:

See COA

Hole Size	Interval	CSG OD	CSG Interval	Weight	Collar	Grade
17.5"	0' - 1000'	13.375"	0 - 1000'	48#	BTC	J-55
12.25"	1000' - 5050'	9.625"	0 - 5050'	40#	LTC	L-80
8.75"	5050' - 14944'	5.5"	0 - 14944'	20#	BTC	HCP-110

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13.375"	2.18	5.26	9.43
9.625"	1.18	2.19	3.60
5.5"	2.18	2.43	2.23

NOTE: ALL CASING IS NEW & API APPROVED. WHILE RUNNING CASING, PIPE WILL BE KEPT A MINIMUM OF 1/3 FULL AT ALL TIMES TO AVOID APPROACHING COLLAPSE PRESSURE OF THE CASING. SURFACE CASING WILL BE WATCHED & NECESSARY ADJUSTMENTS MADE TO ENSURE PIPE IS FULL DUE TO LOST CIRCULATION ZONES THAT MAY OCCUR. CENTRALIZERS WILL BE USED ON SURFACE CASING

5. Proposed Cement Program:

a. 13-3/8" Surface

Lead: 800 sks 35/65 ExTenda Cem C (13.7ppg / 1.67cuft/sk)

Total mixing fluid: 8.68 Gal/sk

Tail: 550 sks HalCem C + 0.2% retarder (14.80ppg / 1.33cuft/sk)

Total mixing fluid: 6.34 gal/sk

**Calculated w/ 100% excess on OH volume

a. 9-5/8" Intermediate

Lead: 1400 sks 35/65 Poz Class C + HR-800 Retarder + 0.125 lbm/sk Poly-E-Flake Lost Circulation Additive (12.9ppg / 1.85cuft/sk)

Total mixing fluid: 9.82 Gal/sk

Tail: 300sks HalCem C + 0.2% retarder (14.80ppg / 1.33cuft/sk)

Total mixing fluid: 6.34 Gal/sk

**Calculated w/ 100% excess on OH volumes & 10% in CH

b. 5-1/2" Production

Lead: 1300 sks 50/50 Poz (Class H) + 3 lbm/sk Kol-Seal Lost Circulation Additive + 0.125 lbm/sk Poly-E-Flake Lost Circulation Additive + 0.25%



HR-601 Retarder + 0.5 lbm/sk D-Air 5000 Defoamer) (11.5ppg/
2.39cuft/sk)

Total mixing fluid: 13.94 Gal/sk

Tail: 1100 sks Class H + 0.5% HaladR-344 Low Fluid Loss Control + 0.25%
CFR-3 Dispersant + 1 lbm/sk Salt Dispersant + 0.25% HR-601 Retarder +
0.25% HR-601 Retarder (13.2ppg/ 1.61cuft/sk)

Total mixing fluid: 8.35 Gal/sk

**Calculated w/ 100% excess in vertical OH, 35% excess on OH volumes &
10% in CH

NOTE: THE ABOVE CEMENT VOLUMES COULD BE REVISED PENDING FLUID CALIPER & CALIPER LOG DATA. ALL
VOLUMES ARE DESIGNED TO CIRCULATE TO SURFACE.

6. Minimum Specifications for Pressure Control:

13-5/8 (5M) working pressure BOP system consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer (please see BOP schematic). A 5M choke manifold & 120 gallon accumulator with floor and remote operating stations & auxiliary power system. Rotating head as needed. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be NU and operated at least once a day while drilling and the blind rams will be operated when out of the hole during trips. From the base of the 13-3/8" csg through running of production casing, the well will be equipped with a 5M BOP system. Below the 13-3/8" csg shoe, this 5M system will be equipped with a HCR valve, remote kill line, & annular to match. The remote kill line will be installed prior to testing the system & tested to stack pressure.

Before drilling out of the 13-3/8 surface casing, BOP will be tested by an independent surface company to 250 psi low & 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out the 9-5/8 intermediate shoe BOP will be tested by an independent service company to 250psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 psi high. These low pressure



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tests from 250 to 300 psi will be held a minimum of 10 minutes if test is done with a test plug & 30 minutes without a test plug.

7. Estimated BHP:

4752 psi @ 10,570' TVD

8. Mud Program: The applicable depths & properties of this system are as follows:

See
COA

Depth	Type of System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0 - 1,000' ^{1160'} 1,000' - 5,050'	Fresh	8.4 - 9.4	29-32	NC
1,000' - 5,050'	Brine	10.0	28-32	NC
5,050' - 14,994'	Cut Brine	8.3 - 9.3	28-32	NC-12

NOTE: NECESSARY MUD PRODUCTS FOR WEIGHT ADDITION & FLUID LOSS WILL BE ON LOCATION AT ALL TIMES. VISUAL MUD MONITORING EQUIPMENT (I.E. TRIP TANK) WILL BE IN PLACE TO DETECT VOLUME CHANGES INDICATING LOSS OR GAIN OF CIRCULATION VOLUME WITH ALARMS.

9. Auxiliary Well Control & Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- H2S detection equipment will be in operation & breathing apparatuses will be on location after the drill out of the 13-3/8" casing shoe until the 5-1/2" casing is cemented.

See
COA

10. Testing, Logging & Coring Program:

- No drill stem tests are planned.
- GR/N well log ran from KOP to surface.
- Triple combo logs from KOP to intermediate casing shoe.
- No coring is planned.

11. Potential Hazards:

No abnormal pressures or temperatures are expected. If H2S is encountered, Endurance Resources LLC will comply with Onshore Order #6. Regardless, all personnel will be trained & qualified with H2S safety. Rig safety equipment will all

See
COA



also be checked daily once drill out of the 13-3/8" casing shoe to TD. It has been noted that H₂S has been encountered in the salt section. If H₂S is encountered, measurements & formations will be reported to the BLM.

12. Anticipated starting date & Duration of Operations:

Road & location construction will begin after the BLM has approved the APD. Anticipated spud date will begin after BLM approval & after a drilling rig is secured. Move in operations & drilling is expected to take no more than 45 days. An additional 30-50 days will be needed to complete this well & construct surface facilities and/or lay flow lines in order to place well on production.

Endurance Resources LLC

HALLIBURTON

Sperry Drilling Services

Project: Lea County, NM (NAD 83)

Site: Starcaster 18 Fed

Well: Starcaster 18 Fed #4H

Wellbore: Wellbore #1

Plan: Plan #1

Rig: McVay 6

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9997.04	0.00	0.00	9997.04	0.00	0.00	0.00	0.00	0.00	Start Build
10897.04	90.00	179.45	10570.00	-572.93	5.47	10.00	179.45	572.96	End Build
14944.15	90.00	179.45	10570.00	-4619.86	44.07	0.00	0.00	4620.07	TD

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

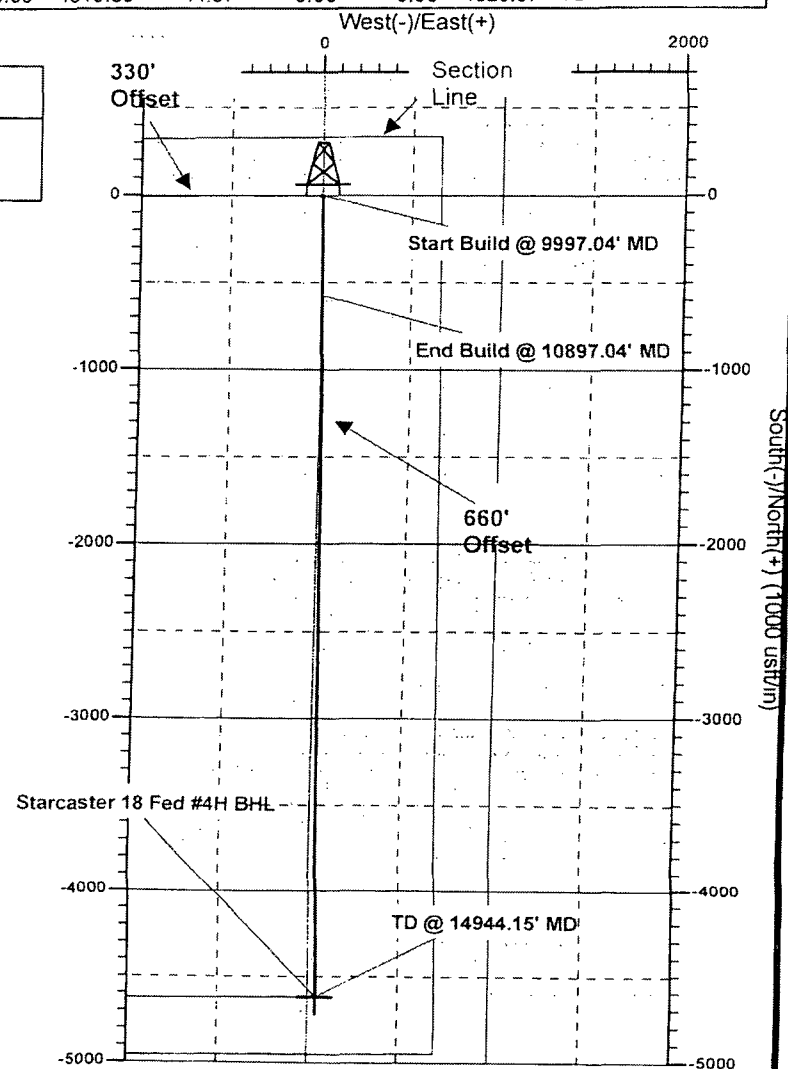
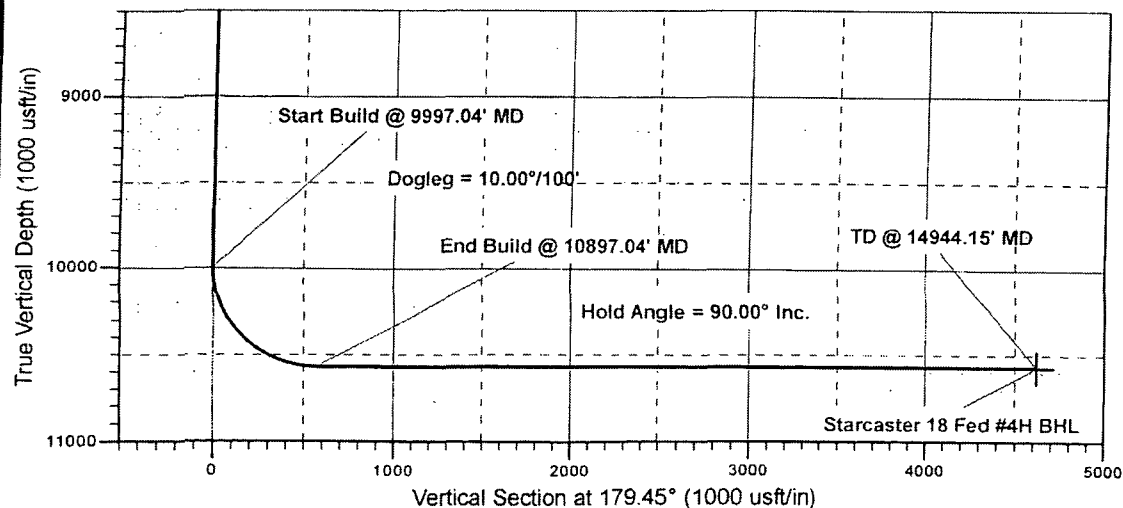
Name	TVD	+N/-S	+E/-W	Northing	Easting
Starcaster 18 Fed #4H BHL	10570.00	-4619.86	44.07	473237.70	797963.64

Surface Location:

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3478.6' + KB 18' @ 3496.60usft (McVay 6)
Northing Easting Latitude Longitude
477857.56 797919.57 32° 18' 39.495 N 103° 30' 10.133 W

To convert a Magnetic Direction to a Grid Direction, Add 6.92°

Magnetic Model: BGGM2013 Date: 04-Dec-13
Azimuths to Grid North



Endurance Resources LLC

Lea County, NM (NAD 83)
Starcaster 18 Fed
Starcaster 18 Fed #4H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

04 December, 2013

Well Coordinates: 477,857.56 N, 797,919.57 E (32° 18' 39.49" N, 103° 30' 10.13" W)
Ground Level: 3,478.60 usft

Local Coordinate Origin:	Centered on Well Starcaster 18 Fed #4H
Viewing Datum:	GL 3478.6' + KB 18' @ 3496.60usft (McVay 6)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 5000.1 Build: 65

HALLIBURTON

Plan Report for Starcaster 18 Fed #4H - Plan #1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Plan Report for Starcaster 18 Fed #4H - Plan #1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,997.04	0.00	0.00	9,997.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 9997.04' MD - Dogleg = 10.00°/100'										
10,000.00	0.30	179.45	10,000.00	-0.01	0.00	0.01	10.00	10.00	0.00	179.45
10,050.00	5.30	179.45	10,049.92	-2.45	0.02	2.45	10.00	10.00	0.00	0.00
10,100.00	10.30	179.45	10,099.45	-9.23	0.09	9.23	10.00	10.00	0.00	0.00
10,150.00	15.30	179.45	10,148.19	-20.30	0.19	20.30	10.00	10.00	0.00	0.00
10,200.00	20.30	179.45	10,195.78	-35.57	0.34	35.57	10.00	10.00	0.00	0.00
10,250.00	25.30	179.45	10,241.86	-54.94	0.52	54.94	10.00	10.00	0.00	0.00
10,300.00	30.30	179.45	10,286.08	-78.24	0.75	78.25	10.00	10.00	0.00	0.00
10,350.00	35.30	179.45	10,328.10	-105.32	1.00	105.32	10.00	10.00	0.00	0.00
10,400.00	40.30	179.45	10,367.59	-135.95	1.30	135.95	10.00	10.00	0.00	0.00
10,450.00	45.30	179.45	10,404.27	-169.90	1.62	169.91	10.00	10.00	0.00	0.00
10,500.00	50.30	179.45	10,437.85	-206.93	1.97	206.94	10.00	10.00	0.00	0.00
10,550.00	55.30	179.45	10,468.07	-246.74	2.35	246.75	10.00	10.00	0.00	0.00
10,600.00	60.30	179.45	10,494.71	-289.03	2.76	289.04	10.00	10.00	0.00	0.00
10,650.00	65.30	179.45	10,517.56	-333.48	3.18	333.50	10.00	10.00	0.00	0.00
10,700.00	70.30	179.45	10,536.45	-379.76	3.62	379.78	10.00	10.00	0.00	0.00
10,750.00	75.30	179.45	10,551.24	-427.50	4.08	427.52	10.00	10.00	0.00	0.00

Plan Report for Starcaster 18 Fed #4H - Plan #1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
10,800.00	80.30	179.45	10,561.80	-476.36	4.54	476.38	10.00	10.00	0.00	0.00
10,850.00	85.30	179.45	10,568.07	-525.94	5.02	525.97	10.00	10.00	0.00	0.00
10,897.04	90.00	179.45	10,570.00	-572.93	5.47	572.96	10.00	10.00	0.00	0.00
End Build @ 10897.04' MD - Hold Angle = 90.00° Inc.										
10,900.00	90.00	179.45	10,570.00	-575.89	5.49	575.92	0.00	0.00	0.00	0.00
11,000.00	90.00	179.45	10,570.00	-675.88	6.45	675.92	0.00	0.00	0.00	0.00
11,100.00	90.00	179.45	10,570.00	-775.88	7.40	775.92	0.00	0.00	0.00	0.00
11,200.00	90.00	179.45	10,570.00	-875.88	8.36	875.92	0.00	0.00	0.00	0.00
11,300.00	90.00	179.45	10,570.00	-975.87	9.31	975.92	0.00	0.00	0.00	0.00
11,400.00	90.00	179.45	10,570.00	-1,075.87	10.26	1,075.92	0.00	0.00	0.00	0.00
11,500.00	90.00	179.45	10,570.00	-1,175.86	11.22	1,175.92	0.00	0.00	0.00	0.00
11,600.00	90.00	179.45	10,570.00	-1,275.86	12.17	1,275.92	0.00	0.00	0.00	0.00
11,700.00	90.00	179.45	10,570.00	-1,375.85	13.12	1,375.92	0.00	0.00	0.00	0.00
11,800.00	90.00	179.45	10,570.00	-1,475.85	14.08	1,475.92	0.00	0.00	0.00	0.00
11,900.00	90.00	179.45	10,570.00	-1,575.84	15.03	1,575.92	0.00	0.00	0.00	0.00
12,000.00	90.00	179.45	10,570.00	-1,675.84	15.99	1,675.92	0.00	0.00	0.00	0.00
12,100.00	90.00	179.45	10,570.00	-1,775.83	16.94	1,775.92	0.00	0.00	0.00	0.00
12,200.00	90.00	179.45	10,570.00	-1,875.83	17.89	1,875.92	0.00	0.00	0.00	0.00
12,300.00	90.00	179.45	10,570.00	-1,975.83	18.85	1,975.92	0.00	0.00	0.00	0.00
12,400.00	90.00	179.45	10,570.00	-2,075.82	19.80	2,075.92	0.00	0.00	0.00	0.00
12,500.00	90.00	179.45	10,570.00	-2,175.82	20.76	2,175.92	0.00	0.00	0.00	0.00
12,600.00	90.00	179.45	10,570.00	-2,275.81	21.71	2,275.92	0.00	0.00	0.00	0.00
12,700.00	90.00	179.45	10,570.00	-2,375.81	22.66	2,375.92	0.00	0.00	0.00	0.00
12,800.00	90.00	179.45	10,570.00	-2,475.80	23.62	2,475.92	0.00	0.00	0.00	0.00
12,900.00	90.00	179.45	10,570.00	-2,575.80	24.57	2,575.92	0.00	0.00	0.00	0.00
13,000.00	90.00	179.45	10,570.00	-2,675.79	25.53	2,675.92	0.00	0.00	0.00	0.00
13,100.00	90.00	179.45	10,570.00	-2,775.79	26.48	2,775.92	0.00	0.00	0.00	0.00
13,200.00	90.00	179.45	10,570.00	-2,875.78	27.43	2,875.92	0.00	0.00	0.00	0.00
13,300.00	90.00	179.45	10,570.00	-2,975.78	28.39	2,975.92	0.00	0.00	0.00	0.00
13,400.00	90.00	179.45	10,570.00	-3,075.78	29.34	3,075.92	0.00	0.00	0.00	0.00
13,500.00	90.00	179.45	10,570.00	-3,175.77	30.29	3,175.92	0.00	0.00	0.00	0.00
13,600.00	90.00	179.45	10,570.00	-3,275.77	31.25	3,275.92	0.00	0.00	0.00	0.00
13,700.00	90.00	179.45	10,570.00	-3,375.76	32.20	3,375.92	0.00	0.00	0.00	0.00
13,800.00	90.00	179.45	10,570.00	-3,475.76	33.16	3,475.92	0.00	0.00	0.00	0.00
13,900.00	90.00	179.45	10,570.00	-3,575.75	34.11	3,575.92	0.00	0.00	0.00	0.00
14,000.00	90.00	179.45	10,570.00	-3,675.75	35.06	3,675.92	0.00	0.00	0.00	0.00
14,100.00	90.00	179.45	10,570.00	-3,775.74	36.02	3,775.92	0.00	0.00	0.00	0.00
14,200.00	90.00	179.45	10,570.00	-3,875.74	36.97	3,875.92	0.00	0.00	0.00	0.00
14,300.00	90.00	179.45	10,570.00	-3,975.73	37.93	3,975.92	0.00	0.00	0.00	0.00
14,400.00	90.00	179.45	10,570.00	-4,075.73	38.88	4,075.92	0.00	0.00	0.00	0.00
14,500.00	90.00	179.45	10,570.00	-4,175.73	39.83	4,175.92	0.00	0.00	0.00	0.00
14,600.00	90.00	179.45	10,570.00	-4,275.72	40.79	4,275.92	0.00	0.00	0.00	0.00
14,700.00	90.00	179.45	10,570.00	-4,375.72	41.74	4,375.92	0.00	0.00	0.00	0.00
14,800.00	90.00	179.45	10,570.00	-4,475.71	42.69	4,475.92	0.00	0.00	0.00	0.00
14,900.00	90.00	179.45	10,570.00	-4,575.71	43.65	4,575.92	0.00	0.00	0.00	0.00
14,944.15	90.00	179.45	10,570.00	-4,619.86	44.07	4,620.07	0.00	0.00	0.00	0.00
TD @ 14944.15' MD - Starcaster 18 Fed #4H BHL										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,997.04	9,997.04	0.00	0.00	Start Build @ 9997.04' MD
9,997.04	9,997.04	0.00	0.00	Dogleg = 10.00°/100'
10,897.04	10,570.00	-572.93	5.47	End Build @ 10897.04' MD
10,897.04	10,570.00	-572.93	5.47	Hold Angle = 90.00° Inc.
14,944.15	10,570.00	-4,619.86	44.07	TD @ 14944.15' MD

Plan Report for Starcaster 18 Fed #4H - Plan #1

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	Origin +E/-W (usft)	Start TVD (usft)
TD	No Target (Freehand)	179.45	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	14,944.15	Plan #1	MWD

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Starcaster 18 Fed #4H BHL	10,570.00	-4,619.86	44.07	Point

North Reference Sheet for Starcaster 18 Fed - Starcaster 18 Fed #4H - 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 3478.6' + KB 18' @ 3496.60usft (McVay 6). Northing and Easting are relative to Starcaster 18 Fed #4H

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: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99998449

Grid Coordinates of Well: 477,857.56 usft N, 797,919.57 usft E

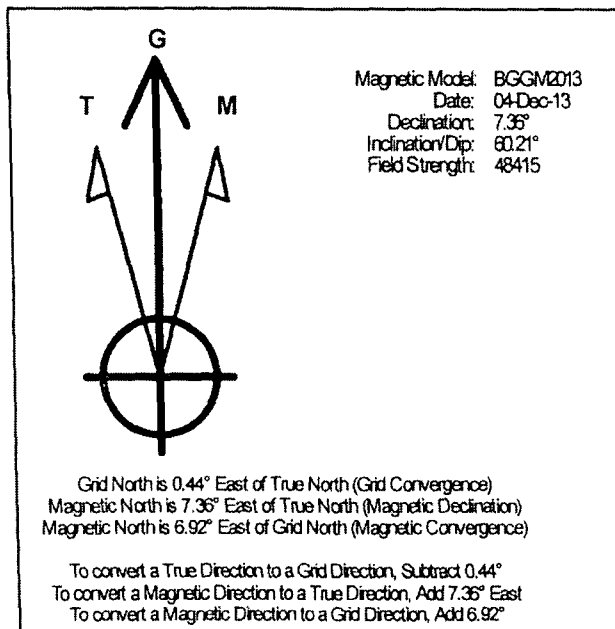
Geographical Coordinates of Well: 32° 18' 39.49" N, 103° 30' 10.13" W

Grid Convergence at Surface is: 0.44°

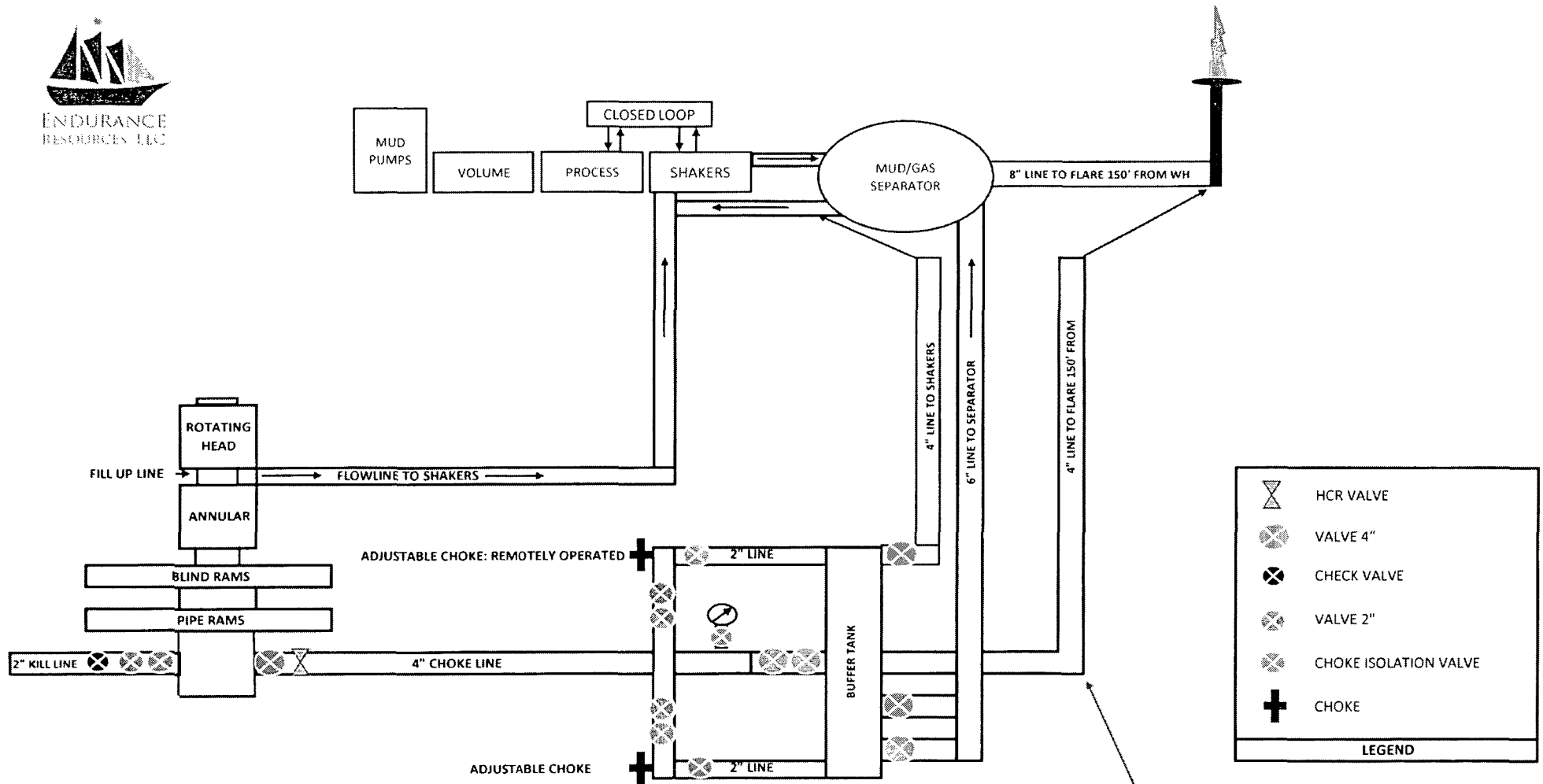
Based upon Minimum Curvature type calculations, at a Measured Depth of 14,944.15usft

the Bottom Hole Displacement is 4,620.07usft in the Direction of 179.45° (Grid).

Magnetic Convergence at surface is: -6.92° (4 December 2013, , BGGM2013)



5M BOP, 5M CHOKE MANIFOLD, AND CLOSED LOOP EQUIPMENT SCHEMATIC FOR 13-5/8 BOP SYSTEM TESTED TO 3M PER ONSHORE ORDER #2



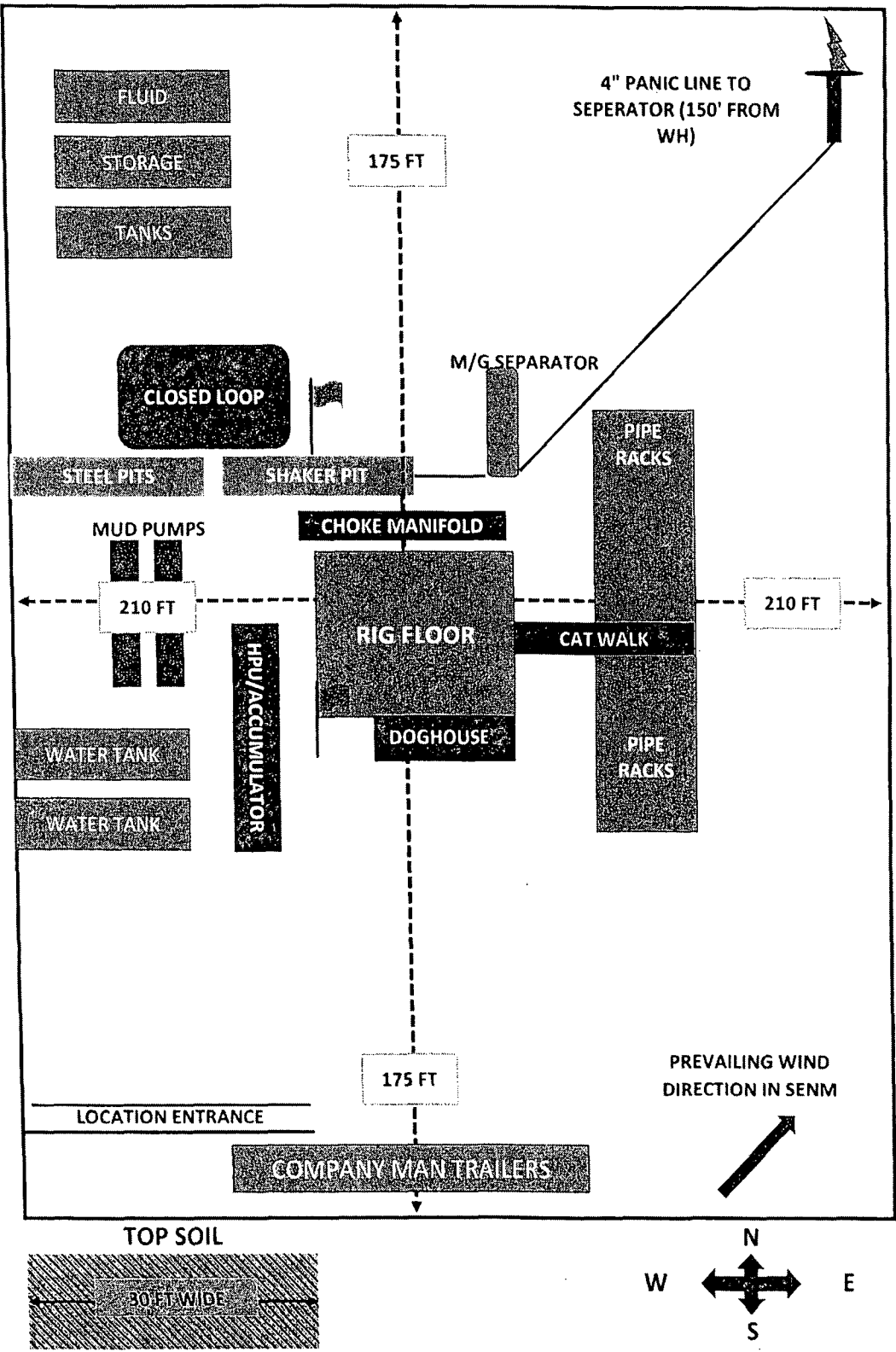
TARGETED T'S. ALL TURNS WILL BE TARGETED.
 OPTION TO USE FLEX HOUSE. TBD ONCE DRILLING RIG IS SECURED. WILL SUNDRY.
 ALL CHOKE LINES WILL BE STRAIGHT LINES UNLESS TURNS THAT USE TEE BLOCKS OR ARE
 TARGETED WITH RUNNING TEES, AND WILL BE ANCHORED TO PREVENT WHIP & REDUCE VIBRATION

ENDURANCE RESOURCES LLC

RIG LOCATION LAYOUT

WELL PAD 420' X 350'

Starcaster 18 Fed 4H



ENDURANCE RESOURCES LLC
RIG LOCATION LAYOUT & H2S SAFETY EQUIPMENT LOCATION
WELL PAD 350' X 420'
NOTE: DRAWING NOT TO SCALE

