

HOBBS OCD

ATS-13-815

Form 3160-3
(March 2012)

SEP 06 2013

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014RECEIVED
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. Stratocaster 20 Fed 2H <39925>	
2. Name of Operator: Endurance Resources LLC		9. API Well No. 30-025-41381	
3a. Address: P.O. Box 1466, Artesia, NM 88211		10. Field and Pool, or Exploratory Antelope Ridge West <2209>	
3b. Phone No. (include area code) 575.308.0722		11. Sec., T. R. M. or Blk. and Survey or Area Sec 20-T23S-34E	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface: SE/SW 330' FSL & 1980' FWL Lot N At proposed prod. zone: NE/NW 330' FNL & 1980' FWL Lot C			
14. Distance in miles and direction from nearest town or post office* Approximately 25 miles northwest of Jal, NM		12. County or Parish Lea	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL 330'	16. No. of acres in lease 640	17. Spacing Unit dedicated to this well 160 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320' (Stratocaster 20-1H & 3H)	19. Proposed Depth 10,500 TVD; 14,873 MD	20. BLM/BIA Bond No. on file NMB000640	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3535' GL	22. Approximate date work will start* 07/01/2013	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 	Name (Printed/Typed) Kale Jackson	Date 05/06/2013
Title Sr. Completions Engineer		
Approved by (Signature) /s/ James Stovall	Name (Printed/Typed)	Date SEP 3 - 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)

MW/OCD 09/27/2013

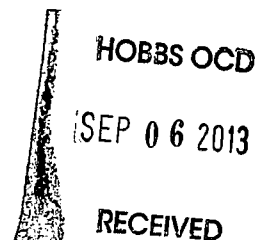
Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

OCT 01 2013



ENDURANCE
RESOURCES, LLC



Endurance Resources LLC

DRILLING & OPERATIONS PROGRAM

Stratocaster 20 Fed #2H

SHL: 330' FSL & 1980' FWL

BHL: 330' FNL & 1980' FWL

Sec 20-T23S-R34E

Lea Co, NM

1. Geological Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geological Markers

Fresh Water	311'
Rustler	1,040'
Top of Salt	1,650'
Base of Salt	4,454'
Lamar Limestone	5,100'
Delaware	5,150' Oil
Bone Spring	8,630'
1 st Bone Spring	9,750' Oil
2 nd Bone Spring	10,275' Oil
TVD:	10,500' ; MD: 14,873'

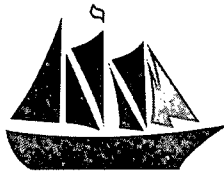
3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

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.



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4. Proposed Casing Program:

See COA

Hole Size	Depths	Section	OD Casing	Wt	Collar	Grade	Collapse DF	Burst DF	Tension DF
17-1/2"	0' - 1,250'	Surface	13-3/8"	48	STC	H-40	1.125	1.125	1.6
12-1/4"	0' - 2,500'	Intermediate	9-5/8"	36	LTC	J-55	1.125	1.125	1.6
	2,500' - 5,100'			40	LTC	N-80	1.125	1.125	1.6
8-3/4"	0' - 9,750'	Production	5-1/2"	17	LTC	P-110	1.125	1.125	1.6
	9,750' - 14,873'	Curve & Lateral		17	BTC	P-110	1.125	1.125	1.6

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.

5. Proposed Cement Program:

a. 13-3/8" Surface

Lead: 450sks ExtendaCem-CZ (Class C) (13.5ppg / 1.75cuft/sk)

Tail: 415sks HalCem-C (Class C) + 2% CaCl (14.80ppg / 1.35cuft/sk)

**Calculated w/ 50% excess on OH volumes

b. 9-5/8" Intermediate

Lead: 985sks EconoCem-HLC (Class C) +5% salt + 5 #/sk lost circulation additive (12.70ppg/ 1.97cuft/sk)

Tail: 175sks HalCem-C (Class C) +1% CaCl (14.80ppg/ 1.34cuft/sk)

**Calculated w/ 35% excess on OH volumes

c. 5-1/2" Production

Lead: 680sks VersaCem-H (Class H) +0.6% retarder +0.25#/sk defoamer (11.90ppg/ 2.25cuft/sk)

Tail: 620sks SoluCem-H (Class H) +0.4% retarder +0.25#/sk defoamer (15ppg/ 2.62cuft/sk)

**Calculated w/ 25% excess on OH volumes

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:

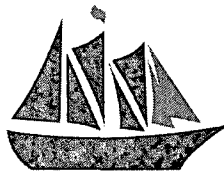
13-5/8 (5M) working pressure BOP system consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer (please see BOP schematic). A 5M choke manifold & 120 gallon accumulator with floor and remote operating stations & auxiliary power system. Rotating head as needed. 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 9-5/8 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 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:

4586 psi @ 10,500' TVD



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

Depth	Type of System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0' - 1,200'	Fresh Water	8.4	29	NC
1,200' - 5,100'	Brine	9.8 - 10.0	28-32	NC
5,100' - 14,873'	Cut Brine	8.6 - 9.2	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:

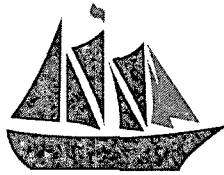
- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- H₂S detection equipment will be in operation & breathing apparatuses will be on location after the drill out of the 13-3/8" casing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

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. The existing Paloma 20-1 (20-23S-34E) has been producing in this prospective horizontal target area since 2011. 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 also be checked daily once drill out of the 13-3/8" casing shoe to TD.



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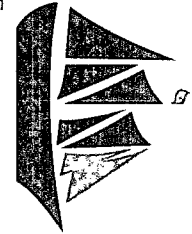
12. Anticipated starting date & Duration of Operations:

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. A battery will be built on the Stratocaster 20-1H location to handle this well, as well as 3 other potential new drills in this section.

Endurance Resources LLC

HALLIBURTON
Speny Drilling Services

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Project: Lea County, NM (NAD 83)
Site: Stratocaster 20 Fed
Well: Stratocaster 20 Fed #2H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: Original Well Elev

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	OLeg	TFac	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9927.04	0.00	0.00	9927.04	0.00	0.00	0.00	0.00	0.00	Start Build
10827.04	90.00	359.46	10500.00	572.93	-5.37	10.00	359.46	572.96	End Bu2d
14873.74	90.00	359.46	10500.00	4619.45	-43.29	0.00	0.00	4619.65	TD

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Stratocaster 20 Fed #2H PSHL	10500.00	4619.45	-43.29	472598.87	800109.39

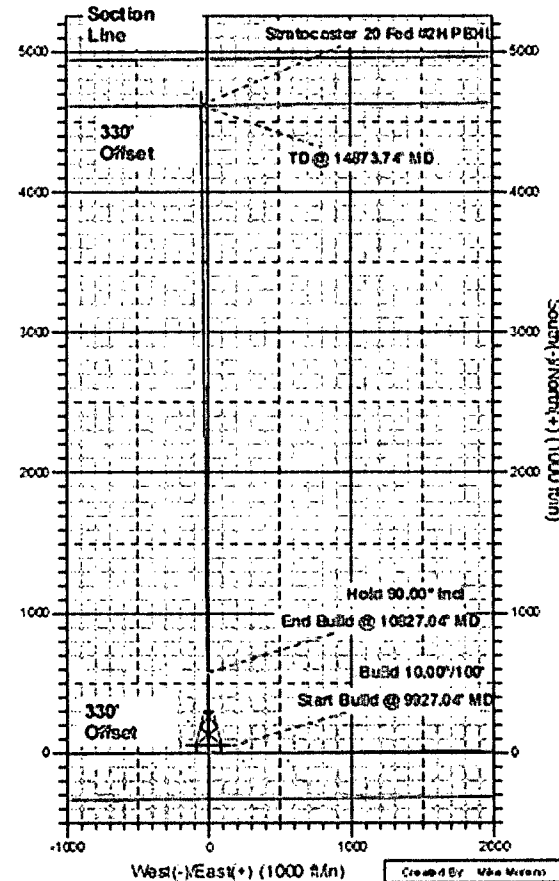
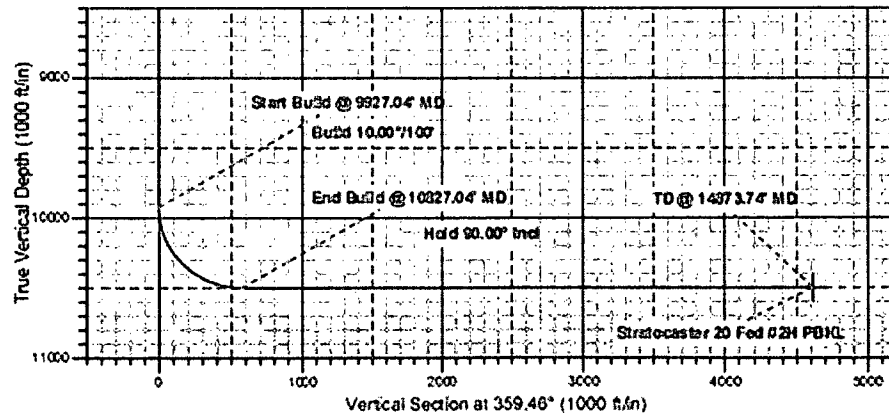
Surface Location:

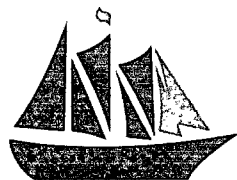
US State Plane 1983
New Mexico Eastern Zone
Bovaton: GE 3593.4 + KB 77' @ 3590.20' (Original Well Bov)
Northing: 467979.42 Easting: 800152.69 Latitude: 32° 17' 01.541 N Longitude: 103° 29' 39.188 W



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

Magnetic Model: BGGV2012 Date: 08-May-13
Azimuths to Grid North





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RECEIVED

Endurance Resources LLC

Lea County, NM (NAD 83)

Stratocaster 20 Fed

Stratocaster 20 Fed #2H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Standard Report

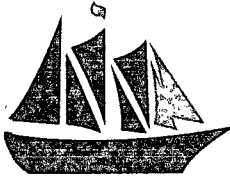
08 May, 2013

Well Coordinates: 467,979.42 N, 800,652.68 E (32° 17' 01.54" N, 103° 29' 39.19" W)
Ground Level: 3,535.20 ft

Local Coordinate Origin:	Centered on Well Stratocaster 20 Fed #2H
Viewing Datum:	GE 3593.4' + KB ??' @ 3560.20ft (Original Well Elev)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 2003.16 Build: 431

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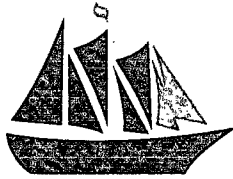
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Endurance Resources LLC
Lea County, NM (NAD 83)

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Plan Report for Stratocaster 20 Fed #2H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	-N-S (ft)	-E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	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
1,200.00	0.00	0.00	1,200.00	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
1,400.00	0.00	0.00	1,400.00	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
1,600.00	0.00	0.00	1,600.00	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
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00
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2,800.00	0.00	0.00	2,800.00	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
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4,600.00	0.00	0.00	4,600.00	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
4,800.00	0.00	0.00	4,800.00	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



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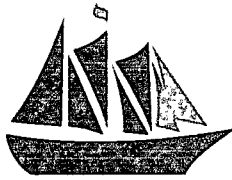
HALLIBURTON

Endurance Resources LLC

Lea County, NM (NAD 83)

Plan Report for Stratocaster 20 Fed #2H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (%/100ft)
5,000.00	0.00	0.00	5,000.00	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
5,200.00	0.00	0.00	5,200.00	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
5,400.00	0.00	0.00	5,400.00	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
5,600.00	0.00	0.00	5,600.00	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
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	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
6,100.00	0.00	0.00	6,100.00	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
6,300.00	0.00	0.00	6,300.00	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
6,500.00	0.00	0.00	6,500.00	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
6,700.00	0.00	0.00	6,700.00	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
6,900.00	0.00	0.00	6,900.00	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
7,100.00	0.00	0.00	7,100.00	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
7,300.00	0.00	0.00	7,300.00	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
7,500.00	0.00	0.00	7,500.00	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
7,700.00	0.00	0.00	7,700.00	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
7,900.00	0.00	0.00	7,900.00	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
8,100.00	0.00	0.00	8,100.00	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
8,300.00	0.00	0.00	8,300.00	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
8,500.00	0.00	0.00	8,500.00	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
8,700.00	0.00	0.00	8,700.00	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
8,900.00	0.00	0.00	8,900.00	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
9,100.00	0.00	0.00	9,100.00	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
9,300.00	0.00	0.00	9,300.00	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
9,500.00	0.00	0.00	9,500.00	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
9,700.00	0.00	0.00	9,700.00	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
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00



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Lea County, NM (NAD 83)

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Plan Report for Stratocaster 20 Fed #2H - Plan #1

Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (%/100ft)
9,927.04	0.00	0.00	9,927.04	0.00	0.00	0.00	0.00
Start Build @ 9927.04' MD - Build 10.00°/100'							
9,950.00	2.30	359.46	9,949.99	0.46	0.00	0.46	10.00
10,000.00	7.30	359.46	9,999.80	4.64	-0.04	4.64	10.00
10,050.00	12.30	359.46	10,049.06	13.14	-0.12	13.14	10.00
10,100.00	17.30	359.46	10,097.39	25.91	-0.24	25.91	10.00
10,150.00	22.30	359.46	10,144.42	42.83	-0.40	42.84	10.00
10,200.00	27.30	359.46	10,189.79	63.80	-0.60	63.80	10.00
10,250.00	32.30	359.46	10,233.17	88.63	-0.83	88.64	10.00
10,300.00	37.30	359.46	10,274.21	117.16	-1.10	117.16	10.00
10,350.00	42.30	359.46	10,312.62	149.15	-1.40	149.15	10.00
10,400.00	47.30	359.46	10,348.09	184.36	-1.73	184.37	10.00
10,450.00	52.30	359.46	10,380.35	222.54	-2.09	222.55	10.00
10,500.00	57.30	359.46	10,409.17	263.38	-2.47	263.39	10.00
10,550.00	62.30	359.46	10,434.31	306.57	-2.87	306.59	10.00
10,600.00	67.30	359.46	10,455.60	351.80	-3.30	351.81	10.00
10,650.00	72.30	359.46	10,472.86	398.70	-3.74	398.72	10.00
10,700.00	77.30	359.46	10,485.97	446.94	-4.19	446.96	10.00
10,750.00	82.30	359.46	10,494.83	496.13	-4.65	496.15	10.00
10,800.00	87.30	359.46	10,499.36	545.90	-5.12	545.93	10.00
10,827.04	90.00	359.46	10,500.00	572.93	-5.37	572.96	10.00
End Build @ 10827.04' MD - Hold 90.00° Incl							
10,900.00	90.00	359.46	10,500.00	645.89	-6.05	645.92	0.00
11,000.00	90.00	359.46	10,500.00	745.89	-6.99	745.92	0.00
11,100.00	90.00	359.46	10,500.00	845.88	-7.93	845.92	0.00
11,200.00	90.00	359.46	10,500.00	945.88	-8.86	945.92	0.00
11,300.00	90.00	359.46	10,500.00	1,045.87	-9.80	1,045.92	0.00
11,400.00	90.00	359.46	10,500.00	1,145.87	-10.74	1,145.92	0.00
11,500.00	90.00	359.46	10,500.00	1,245.86	-11.68	1,245.92	0.00
11,600.00	90.00	359.46	10,500.00	1,345.86	-12.61	1,345.92	0.00
11,700.00	90.00	359.46	10,500.00	1,445.85	-13.55	1,445.92	0.00
11,800.00	90.00	359.46	10,500.00	1,545.85	-14.49	1,545.92	0.00
11,900.00	90.00	359.46	10,500.00	1,645.85	-15.42	1,645.92	0.00
12,000.00	90.00	359.46	10,500.00	1,745.84	-16.36	1,745.92	0.00
12,100.00	90.00	359.46	10,500.00	1,845.84	-17.30	1,845.92	0.00
12,200.00	90.00	359.46	10,500.00	1,945.83	-18.23	1,945.92	0.00
12,300.00	90.00	359.46	10,500.00	2,045.83	-19.17	2,045.92	0.00
12,400.00	90.00	359.46	10,500.00	2,145.82	-20.11	2,145.92	0.00
12,500.00	90.00	359.46	10,500.00	2,245.82	-21.05	2,245.92	0.00
12,600.00	90.00	359.46	10,500.00	2,345.81	-21.98	2,345.92	0.00
12,700.00	90.00	359.46	10,500.00	2,445.81	-22.92	2,445.92	0.00
12,800.00	90.00	359.46	10,500.00	2,545.81	-23.86	2,545.92	0.00
12,900.00	90.00	359.46	10,500.00	2,645.80	-24.79	2,645.92	0.00
13,000.00	90.00	359.46	10,500.00	2,745.80	-25.73	2,745.92	0.00
13,100.00	90.00	359.46	10,500.00	2,845.79	-26.67	2,845.92	0.00
13,200.00	90.00	359.46	10,500.00	2,945.79	-27.61	2,945.92	0.00
13,300.00	90.00	359.46	10,500.00	3,045.78	-28.54	3,045.92	0.00
13,400.00	90.00	359.46	10,500.00	3,145.78	-29.48	3,145.92	0.00
13,500.00	90.00	359.46	10,500.00	3,245.78	-30.42	3,245.92	0.00
13,600.00	90.00	359.46	10,500.00	3,345.77	-31.35	3,345.92	0.00
13,700.00	90.00	359.46	10,500.00	3,445.77	-32.29	3,445.92	0.00

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Plan Report for Stratocaster 20 Fed #2H - Plan #1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	-N-S (ft)	-E-W (ft)	Vertical Section (ft)	Dogleg Rate (%/100ft)
13,800.00	90.00	359.46	10,500.00	3,545.76	-33.23	3,545.92	0.00
13,900.00	90.00	359.46	10,500.00	3,545.76	-34.17	3,545.92	0.00
14,000.00	90.00	359.46	10,500.00	3,745.75	-35.10	3,745.92	0.00
14,100.00	90.00	359.46	10,500.00	3,845.75	-36.04	3,845.92	0.00
14,200.00	90.00	359.46	10,500.00	3,945.74	-36.98	3,945.92	0.00
14,300.00	90.00	359.46	10,500.00	4,045.74	-37.91	4,045.92	0.00
14,400.00	90.00	359.46	10,500.00	4,145.74	-38.85	4,145.92	0.00
14,500.00	90.00	359.46	10,500.00	4,245.73	-39.79	4,245.92	0.00
14,600.00	90.00	359.46	10,500.00	4,345.73	-40.72	4,345.92	0.00
14,700.00	90.00	359.46	10,500.00	4,445.72	-41.66	4,445.92	0.00
14,800.00	90.00	359.46	10,500.00	4,545.72	-42.60	4,545.92	0.00
14,873.74	90.00	359.46	10,500.00	4,619.45	-43.29	4,619.65	0.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		-N+S	-E+W	
9,927.04	9,927.04	0.00	0.00	Start Build @ 9527.04' MD
9,927.04	9,927.04	0.00	0.00	Build 10.00'/100'
10,827.04	10,500.00	572.93	-5.37	End Build @ 10527.04' MD
10,827.04	10,500.00	572.93	-5.37	Hold 90.00' Incl
14,573.74	10,500.00	4,619.45	-23.29	TD @ 14873.74' MD

Vertical Section Information

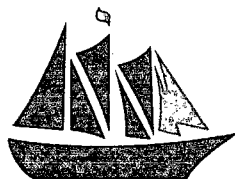
Angle Type	Target	Azimuth (°)	Origin Type	Origin -N/+S (m)	Origin -E/+W (m)	Start TVD (m)
User	No Target (Freehand)	359.46	Slo:	0.00	0.00	0.00

Survey tool program

From (n)	To (n)	Survey/Plan	Survey Tool
0.05	14,873.74	Plan #1	MWD+SC

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	-N-S (ft)	-E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Stratocaster 20 Fed - plan hits target center - Point	0.00	0.00	10,500.00	4,619.45	-43.29	472,598.87	606,609.39	32° 17' 47.253 N	103° 29' 39.271 W



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North Reference Sheet for Stratocaster 20 Fed - Stratocaster 20 Fed #2H - 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 GE 3593.4' + KB ??' @ 3560.20ft (Original Well Elev). Northing and Easting are relative to Stratocaster 20 Fed #2H

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° 20' 0.000 W", 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: 0.99958610

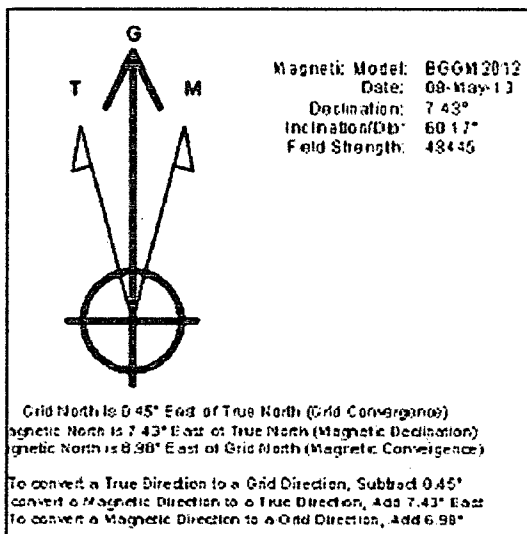
Grid Coordinates of Well: 467,979.42 ft N, 800,652.68 ft E

Geographical Coordinates of Well: 32° 17' 01.54" N, 103° 29' 39.19" W

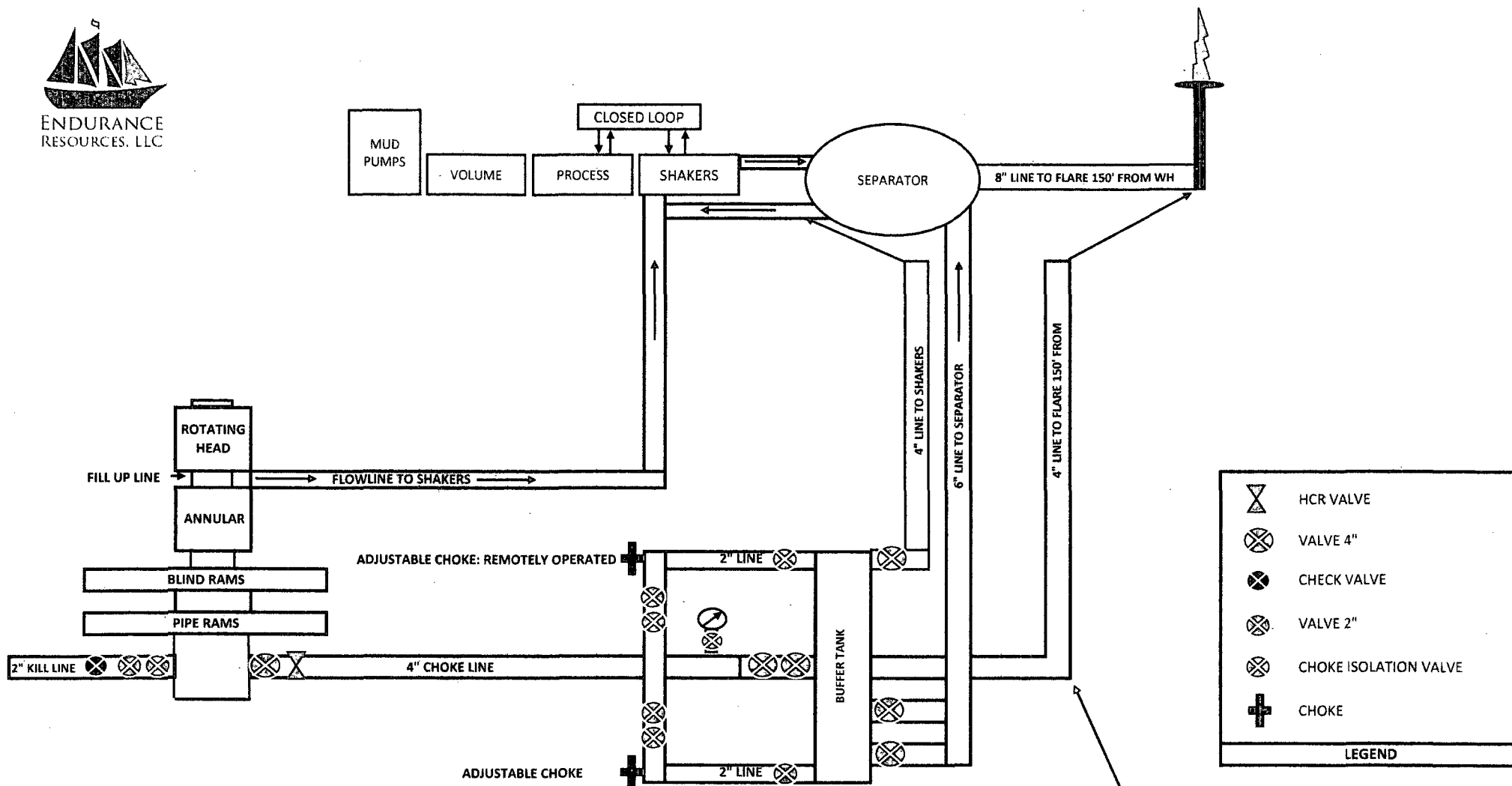
Grid Convergence at Surface is: 0.45°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,873.74ft
the Bottom Hole Displacement is 4,619.65ft in the Direction of 359.46° (Grid).

Magnetic Convergence at surface is: -6.98° (8 May 2013, , BGGM2012)



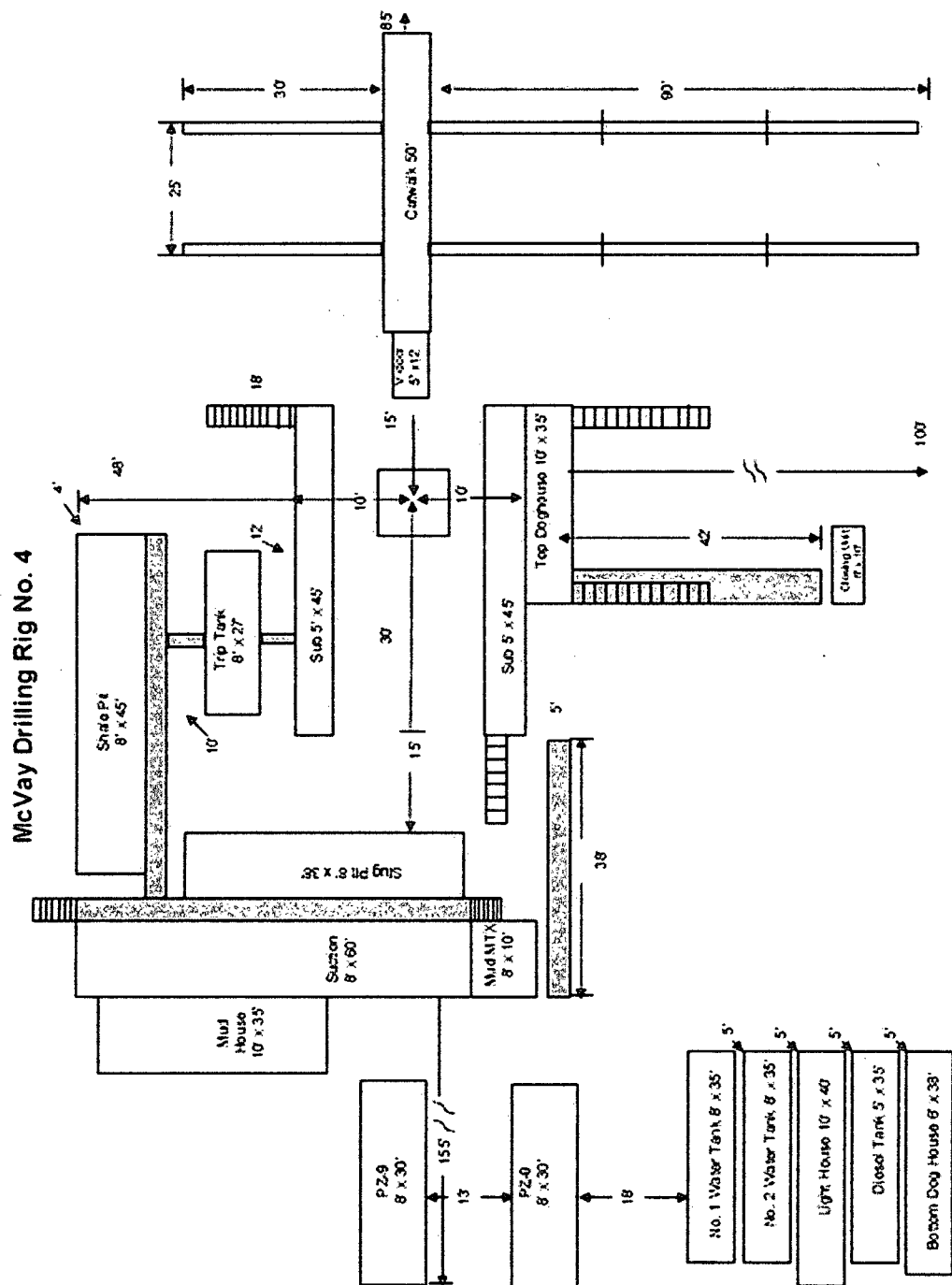
5M BOPE AND CLOSED LOOP EQUIPMENT SCHEMATIC FOR 13-5/8 AND 11" BOP SYSTEMS TESTED TO 3M PER ONSHORE ORDER #2

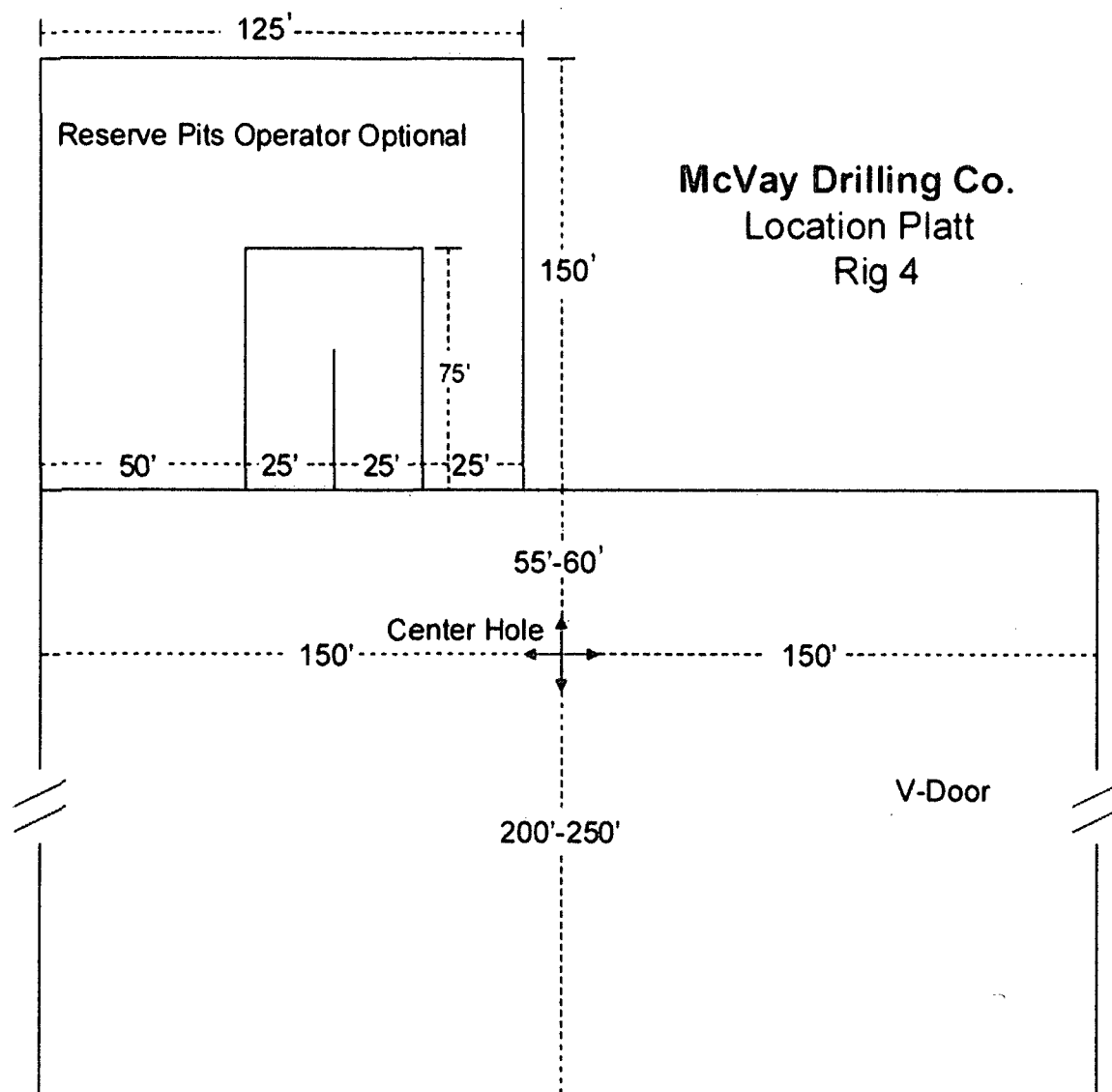


TARGETED T'S. ALL TURNS WILL BE TARGETED.

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





McVay Drilling Co.
Location Platt
Rig 4

McVay Drilling Co.

Rig # 4 – Pit System

