Form 3160-3
(August 2007)

HOBBS OCD

DEC 2 4 2012

RECEIVED

OCD Hobbs

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

5. Lease Serial No.
SL-NM027507, BHL NM-107393

6. If Indian, Allotee or Tribe Name

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. (39604)
Red Hills West "21" DM Fed Com #1H

2. Name of Operator Mewbourne Oil Company (14744)

9. API Well No.
30-025-40897

3a. Address
PO Box 5270
Hobbs, NM 88241

3b. Phone No. *(include area code)*
575-393-5905

10. Field and Pool, or Exploratory
Jennings Upper Wolf (97838)
~~Wildcat~~ Bone Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 150' FNL & 380' FWL, Sec. 21 T26S R32E. Unit D
At proposed prod. zone 380' FSL & 330' FWL, Sec. 21 T26S R32E. Unit M

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 21 T26S R32E

14. Distance in miles and direction from nearest town or post office*
29 miles West/SW 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)
150'

16. No. of acres in lease
1178.92

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1970'

19. Proposed Depth
13876' MD
9281' TVD

20. BLM/BIA Bond No. on file
NM-1693, Nationwide, NMB 000919

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3151' GL

22. Approximate date work will start*
10/15/2012

23. Estimated duration
60 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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Bradley Bishop
Name *(Printed/Typed)* Bradley Bishop
Date 09/18/2012

Title

Approved by *(Signature)* /s/ Don Peterson
Name *(Printed/Typed)*
Date DEC 20 2012

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)

Carlsbad Controlled Water Basin

KA
12/26/12

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

JAN 08 2013

Drilling Program
Mewbourne Oil Company
Red Hills West 21 DM Fed Com #1H
150' FNL & 380' FWL (SHL)
Sec 21-T26S-R32E
Lea County, New Mexico

1. **The estimated (TVD) tops of geological markers are as follows:**

Rustler	675'
Top of Salt	915'
Base of Salt	4220'
*Delaware	4400'
*Bone Springs	8500'
1st Bone Springs sand	9500'
Wolfcamp	WILL NOT PENETRATE

2. **Estimated depths of anticipated fresh water, oil, or gas:**

Water	Fresh water is anticipated @ 200' and will be protected by setting surface casing at ~~700~~ 825' and cementing to surface.
Hydrocarbons	Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.

3. **Pressure control equipment:**

A 2000# WP annular will be installed after running 13 ⅜" casing. A 3000# WP double ram BOP and 3000# WP Annular will be installed after running 9 ⅝" & 7" casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOPs will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use.
Will test the 13 ⅜" annular to 1500# and the 9 ⅝" & 7" BOPE to 3000# and annular to 1500# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1st test as per BLM Onshore Oil and Gas Order #2.

4. **Drilling Program:**

MOC proposes to drill a vertical wellbore to 8683' & kick off to horizontal @ 9256' TVD. The well will be drilled to 13,876' MD (9281' TVD). See attached directional plan.

5. **Proposed casing and cementing program:**

See COA

A. Casing Program:

Hole Size	Casing	Wt/Ft.	Grade	Depth	Jt Type
17 ½"	13 ⅜" (new)	48#	H40	0'-~~700~~ 825'	ST&C
12 ¼"	9 ⅝" (new)	36#	J55	0'-3400'	LT&C
12 ¼"	9 ⅝" (new)	40#	J55	3400'-4300'	LT&C
8 ¾"	7" (new)	26#	P110	0-8600' MD	LT&C
8 ¾"	7" (new)	26#	P110	8600'-9580'MD	BT&C
6 1/8"	4 ½" (new)	13.5#	P110	9380'-TD	LT&C

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.
*Subject to availability of casing.

B. Cementing Program:

i. Surface Casing: 325 sacks *Lite "C" (35:65:4) cement w/salt and lost circulation additives. Yield at 2.16 cuft/sk. 200 sks class "C" w/2% $CaCl_2$. Yield at 1.34 cuft/sk. Cmt circulated to surface w/100% excess.

ii. Intermediate Casing: 670 sacks *Lite "C" (35:65:4) cement w/salt and lost circulation material additives. Yield at 2.11 cuft/sk. 200 sks class "C" neat. Yield at 1.33 cuft/sk. Cmt circulated to surface w/25% excess.

iii. Production Casing: 700 sacks *Lite "C" (60:40:0) cement w/salt and fluid loss additives. Yield at 2.11 cuft/sk. 300 sks class "H" w/salt and fluid loss additives. Yield at 1.19 cuft/sk. Cmt calculated to tieback into intermediate casing @ 4100' w/25% excess.

iv. Production Liner: This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

*Referring to above blends of lite cement: (wt% fly ash : wt% cement : wt% bentonite of the total of first two numbers). Generic names of additives are used since the availability of specific company and products are unknown at this time.

**Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

6. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-700' 825	FW spud mud	8.6-9.0	32-34	NA
700'-4300'	Brine water	10.0	29-30	NA
4300'-8683'	FW mud	8.6-8.8	28-30	NA
8683'- TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program:

Samples: 10' samples from surface casing to TD
Logging: GR, CNL & Gyro from KOP-100' (8583') to surface and GR from KOP to TD.

8. Downhole Conditions

Zones of abnormal pressure:	None anticipated
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	120 degree F
Maximum bottom hole pressure:	8.3 lbs/gal gradient or less (9281 x .44 = 4083.64 psi per foot.)

9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

Mewbourne Oil Co

Lea County, NM
Section 21-26S-32E
Red Hills West 21 "DM" Fed com #1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

11 September, 2012

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Red Hills West 21 "DM" Fed com #1H
Company:	Mewbourne Oil Co	**TVD Reference:**	WELL @ 3171.0usft (Patterson-UTI #41)
Project:	Lea County, NM	**MD Reference:**	WELL @ 3171.0usft (Patterson-UTI #41)
Site:	Section 21-26S-32E	**North Reference:**	Grid
Well:	Red Hills West 21 "DM" Fed com #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project Lea County, NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Section 21-26S-32E

Site Position:		**Northing:**	376,913.78 usft	**Latitude:**	32° 2' 4.330 N
From:	Map	**Easting:**	704,320.13 usft	**Longitude:**	103° 40' 26.342 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.35 °

Well Red Hills West 21 "DM" Fed com #1H

Well Position	**+N/-S**	151.6 usft	**Northing:**	377,065.34 usft	**Latitude:**	32° 2' 6.069 N
	+E/-W	-3,997.9 usft	**Easting:**	700,322.26 usft	**Longitude:**	103° 41' 12.774 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,151.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/11/2012	7.47	59.96	48,367

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.76

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,683.1	0.00	0.00	8,683.1	0.0	0.0	0.00	0.00	0.00	0.00	
9,579.8	89.67	179.76	9,256.0	-569.6	2.4	10.00	10.00	20.05	179.76	
13,875.8	89.67	179.76	9,281.0	-4,865.5	20.3	0.00	0.00	0.00	0.00	PBHL Red Hills We

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Red Hills West 21 "DM" Fed com #1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3171.0usft (Patterson-UTI #41)
Project:	Lea County, NM	MD Reference:	WELL @ 3171.0usft (Patterson-UTI #41)
Site:	Section 21-26S-32E	North Reference:	Grid
Well:	Red Hills West 21 "DM" Fed com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

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)
Build 10° / 100'									
8,683.1	0.00	0.00	8,683.1	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	1.69	179.76	8,700.0	-0.2	0.0	0.2	10.00	10.00	0.00
8,750.0	6.69	179.76	8,749.8	-3.9	0.0	3.9	10.00	10.00	0.00
8,800.0	11.69	179.76	8,799.2	-11.9	0.0	11.9	10.00	10.00	0.00
8,850.0	16.69	179.76	8,847.6	-24.1	0.1	24.1	10.00	10.00	0.00
8,900.0	21.69	179.76	8,894.9	-40.6	0.2	40.6	10.00	10.00	0.00
8,950.0	26.69	179.76	8,940.5	-61.0	0.3	61.0	10.00	10.00	0.00
9,000.0	31.69	179.76	8,984.1	-85.4	0.4	85.4	10.00	10.00	0.00
9,050.0	36.69	179.76	9,025.4	-113.5	0.5	113.5	10.00	10.00	0.00
9,100.0	41.69	179.76	9,064.2	-145.1	0.6	145.1	10.00	10.00	0.00
9,150.0	46.69	179.76	9,100.0	-179.9	0.7	179.9	10.00	10.00	0.00
9,200.0	51.69	179.76	9,132.7	-217.8	0.9	217.8	10.00	10.00	0.00
9,250.0	56.69	179.76	9,161.9	-258.3	1.1	258.3	10.00	10.00	0.00
9,300.0	61.69	179.76	9,187.5	-301.2	1.3	301.2	10.00	10.00	0.00
9,350.0	66.69	179.76	9,209.3	-346.2	1.4	346.2	10.00	10.00	0.00
9,400.0	71.69	179.76	9,227.0	-393.0	1.6	393.0	10.00	10.00	0.00
9,450.0	76.69	179.76	9,240.7	-441.0	1.8	441.1	10.00	10.00	0.00
9,500.0	81.69	179.76	9,250.0	-490.1	2.0	490.1	10.00	10.00	0.00
9,550.0	86.69	179.76	9,255.1	-539.9	2.2	539.9	10.00	10.00	0.00
EOB @ 89.67° Inc / 179.76° Azm / 9256' TVD									
9,579.8	89.67	179.76	9,256.0	-569.6	2.4	569.6	10.00	10.00	0.00
9,600.0	89.67	179.76	9,256.2	-589.9	2.5	589.9	0.00	0.00	0.00
9,700.0	89.67	179.76	9,256.7	-689.8	2.9	689.9	0.00	0.00	0.00
9,800.0	89.67	179.76	9,257.3	-789.8	3.3	789.9	0.00	0.00	0.00
9,900.0	89.67	179.76	9,257.9	-889.8	3.7	889.9	0.00	0.00	0.00
10,000.0	89.67	179.76	9,258.5	-989.8	4.1	989.9	0.00	0.00	0.00
10,100.0	89.67	179.76	9,259.1	-1,089.8	4.5	1,089.8	0.00	0.00	0.00
10,200.0	89.67	179.76	9,259.7	-1,189.8	5.0	1,189.8	0.00	0.00	0.00
10,300.0	89.67	179.76	9,260.2	-1,289.8	5.4	1,289.8	0.00	0.00	0.00
10,400.0	89.67	179.76	9,260.8	-1,389.8	5.8	1,389.8	0.00	0.00	0.00
10,500.0	89.67	179.76	9,261.4	-1,489.8	6.2	1,489.8	0.00	0.00	0.00
10,600.0	89.67	179.76	9,262.0	-1,589.8	6.6	1,589.8	0.00	0.00	0.00
10,700.0	89.67	179.76	9,262.6	-1,689.8	7.0	1,689.8	0.00	0.00	0.00
10,800.0	89.67	179.76	9,263.1	-1,789.8	7.5	1,789.8	0.00	0.00	0.00
10,900.0	89.67	179.76	9,263.7	-1,889.8	7.9	1,889.8	0.00	0.00	0.00
11,000.0	89.67	179.76	9,264.3	-1,989.8	8.3	1,989.8	0.00	0.00	0.00
11,100.0	89.67	179.76	9,264.9	-2,089.8	8.7	2,089.8	0.00	0.00	0.00
11,200.0	89.67	179.76	9,265.5	-2,189.8	9.1	2,189.8	0.00	0.00	0.00
11,300.0	89.67	179.76	9,266.0	-2,289.8	9.5	2,289.8	0.00	0.00	0.00
11,400.0	89.67	179.76	9,266.6	-2,389.8	10.0	2,389.8	0.00	0.00	0.00
11,500.0	89.67	179.76	9,267.2	-2,489.8	10.4	2,489.8	0.00	0.00	0.00
11,600.0	89.67	179.76	9,267.8	-2,589.8	10.8	2,589.8	0.00	0.00	0.00
11,700.0	89.67	179.76	9,268.4	-2,689.8	11.2	2,689.8	0.00	0.00	0.00
11,800.0	89.67	179.76	9,268.9	-2,789.8	11.6	2,789.8	0.00	0.00	0.00
11,900.0	89.67	179.76	9,269.5	-2,889.8	12.0	2,889.8	0.00	0.00	0.00
12,000.0	89.67	179.76	9,270.1	-2,989.8	12.5	2,989.8	0.00	0.00	0.00
12,100.0	89.67	179.76	9,270.7	-3,089.8	12.9	3,089.8	0.00	0.00	0.00
12,200.0	89.67	179.76	9,271.3	-3,189.8	13.3	3,189.8	0.00	0.00	0.00
12,300.0	89.67	179.76	9,271.8	-3,289.8	13.7	3,289.8	0.00	0.00	0.00
12,400.0	89.67	179.76	9,272.4	-3,389.8	14.1	3,389.8	0.00	0.00	0.00
12,500.0	89.67	179.76	9,273.0	-3,489.8	14.5	3,489.8	0.00	0.00	0.00
12,600.0	89.67	179.76	9,273.6	-3,589.8	14.9	3,589.8	0.00	0.00	0.00
12,700.0	89.67	179.76	9,274.2	-3,689.8	15.4	3,689.8	0.00	0.00	0.00

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Site:	Section 21-26S-32E	**North Reference:**	Grid
Well:	Red Hills West 21 "DM" Fed com #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

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)
12,800.0	89.67	179.76	9,274.8	-3,789.8	15.8	3,789.8	0.00	0.00	0.00
12,900.0	89.67	179.76	9,275.3	-3,889.8	16.2	3,889.8	0.00	0.00	0.00
13,000.0	89.67	179.76	9,275.9	-3,989.8	16.6	3,989.8	0.00	0.00	0.00
13,100.0	89.67	179.76	9,276.5	-4,089.8	17.0	4,089.8	0.00	0.00	0.00
13,200.0	89.67	179.76	9,277.1	-4,189.8	17.4	4,189.8	0.00	0.00	0.00
13,300.0	89.67	179.76	9,277.7	-4,289.8	17.9	4,289.8	0.00	0.00	0.00
13,400.0	89.67	179.76	9,278.2	-4,389.8	18.3	4,389.8	0.00	0.00	0.00
13,500.0	89.67	179.76	9,278.8	-4,489.8	18.7	4,489.8	0.00	0.00	0.00
13,600.0	89.67	179.76	9,279.4	-4,589.8	19.1	4,589.8	0.00	0.00	0.00
13,700.0	89.67	179.76	9,280.0	-4,689.7	19.5	4,689.8	0.00	0.00	0.00
13,800.0	89.67	179.76	9,280.6	-4,789.7	19.9	4,789.8	0.00	0.00	0.00
TD @ 13876' MD / 9281' TVD									
13,875.8	89.67	179.76	9,281.0	-4,865.5	20.3	4,865.6	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Red Hills West - plan hits target center - Point	0.00	0.00	9,281.0	-4,865.5	20.3	372,199.79	700,342.52	32° 1' 17.918 N	103° 41' 12.877 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,683.1	8,683.1	0.0	0.0	Build 10° / 100'
9,579.8	9,256.0	-569.6	2.4	EOB @ 89.67° Inc / 179.76° Azm / 9256' TVD
13,875.8	9,281.0	-4,865.5	20.3	TD @ 13876' MD / 9281' TVD

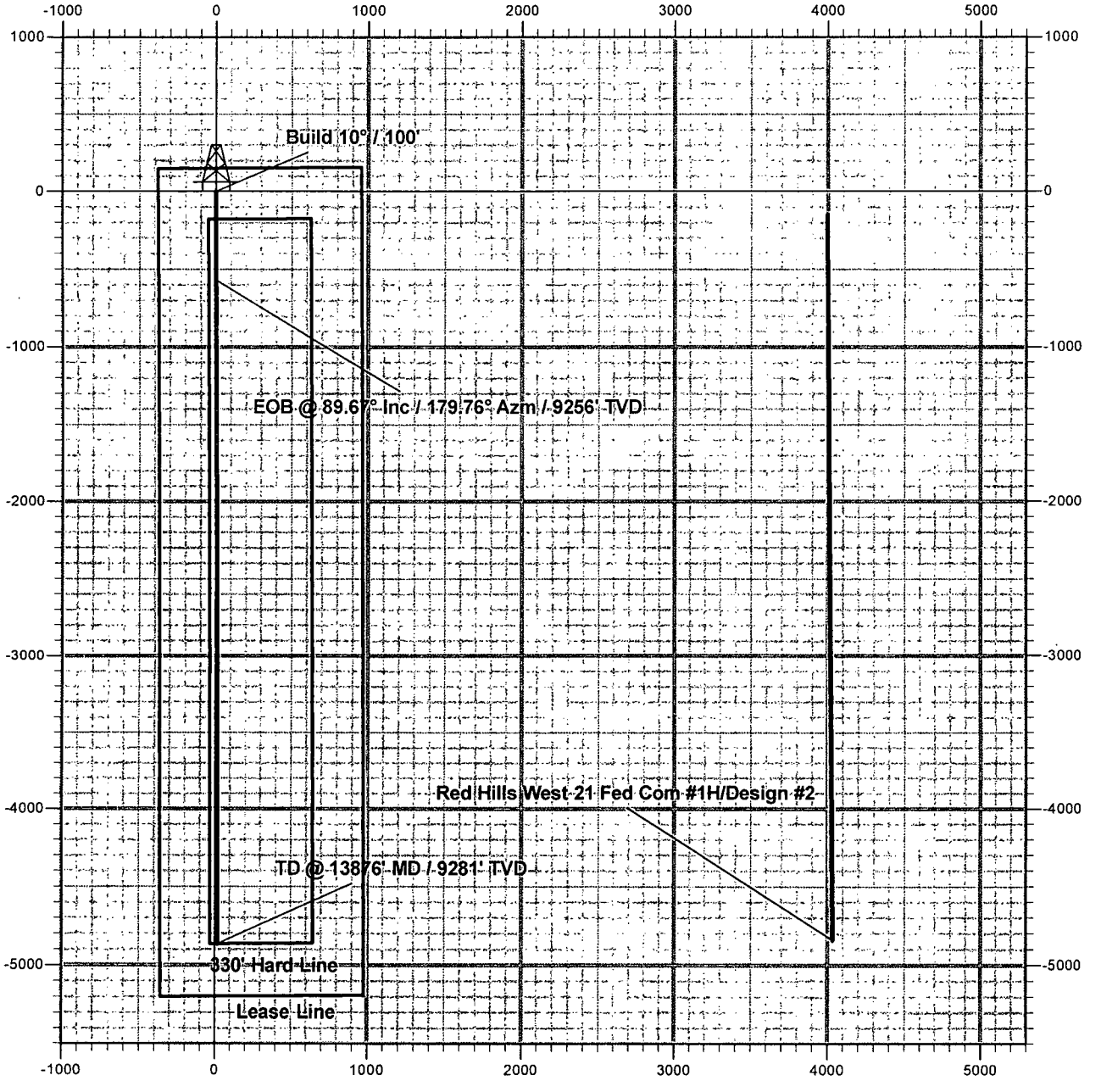
Mewbourne Oil Company

Lea County, NM

Red Hills West 21 "DM" Fed com #1H

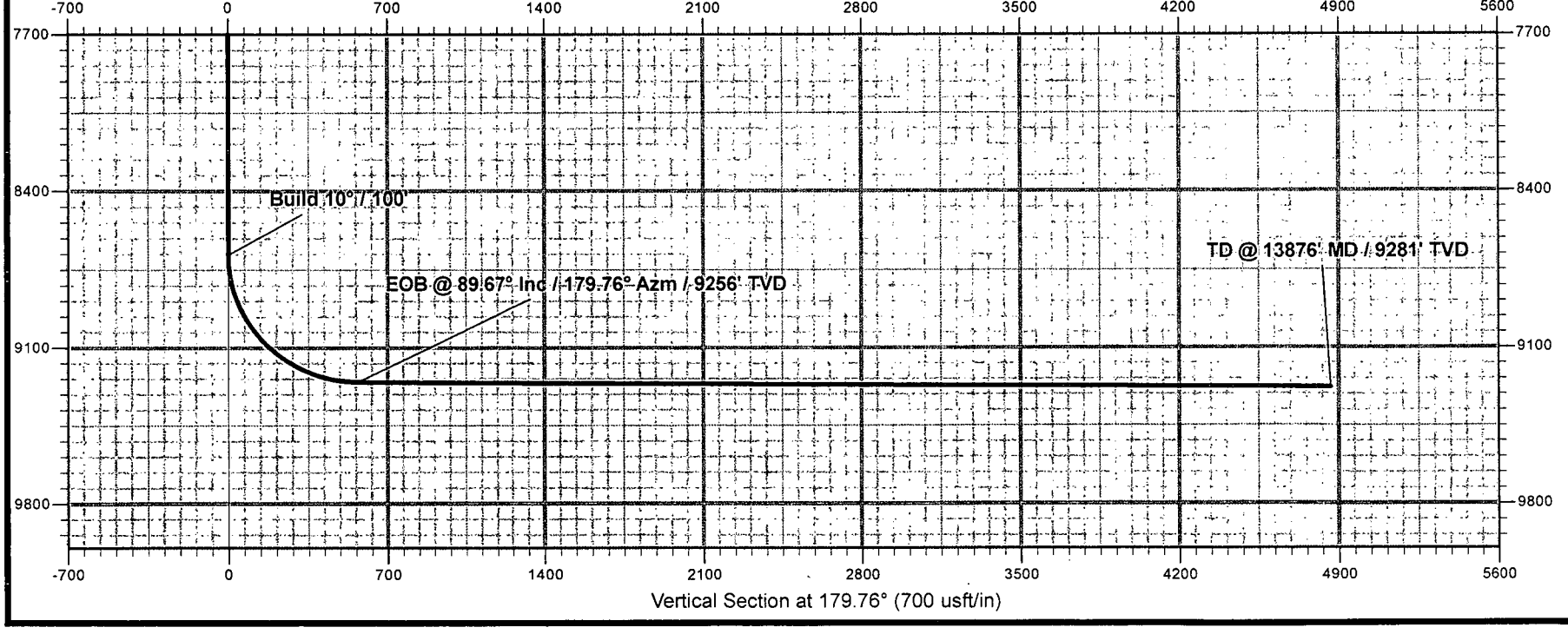
Quote 120686

Design #1



Mewbourne Oil Company

Lea County, NM
Red Hills West 21 "DM" Fed com #1H
Quote 120686
Design #1



13 ⅝" 2M BOPE & Closed Loop Equipment Schematic

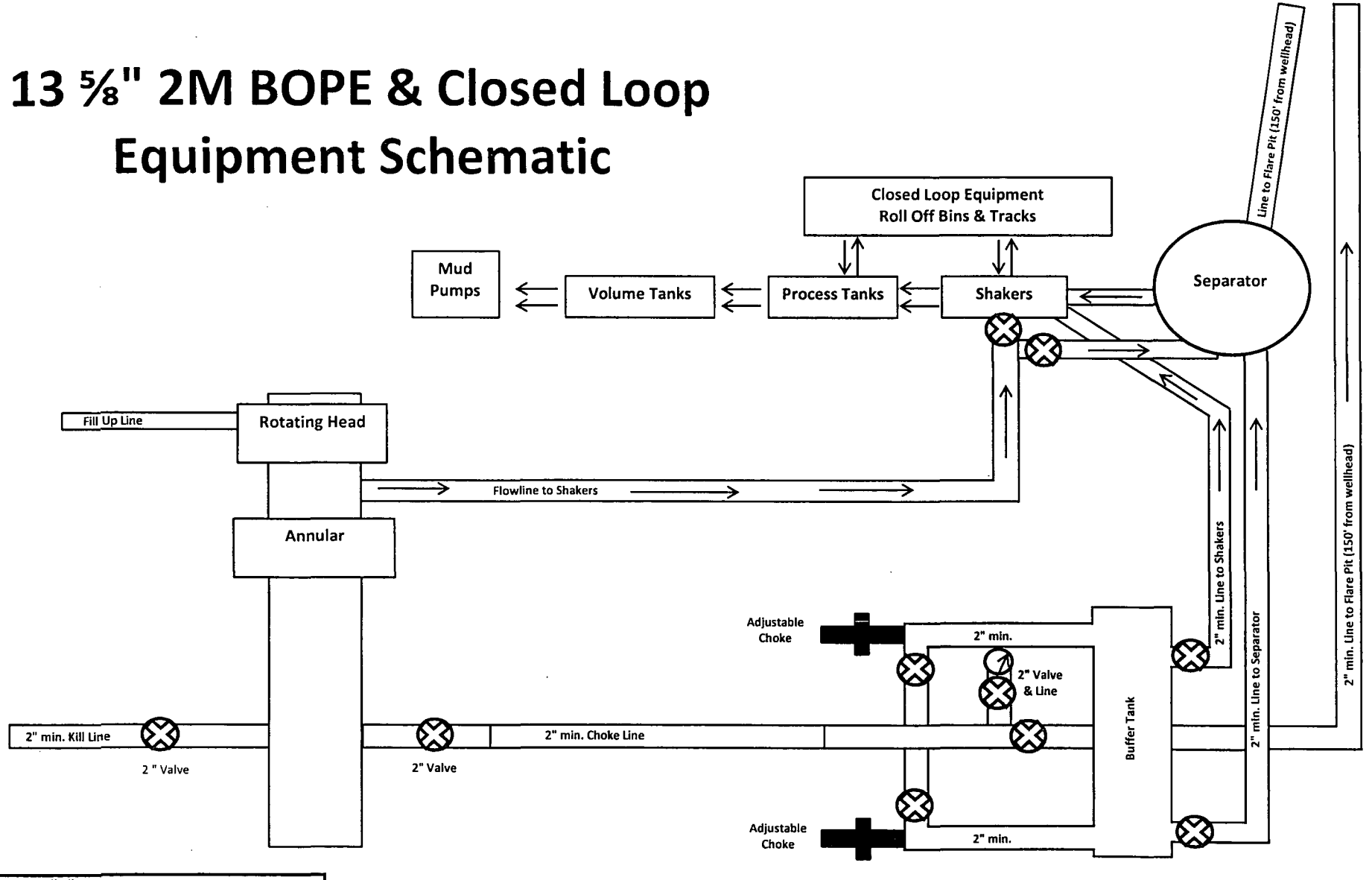


EXHIBIT "2"
Red Hills West 21 DM Fed Com #1H

11" 3M BOPE & Closed Loop Equipment Schematic

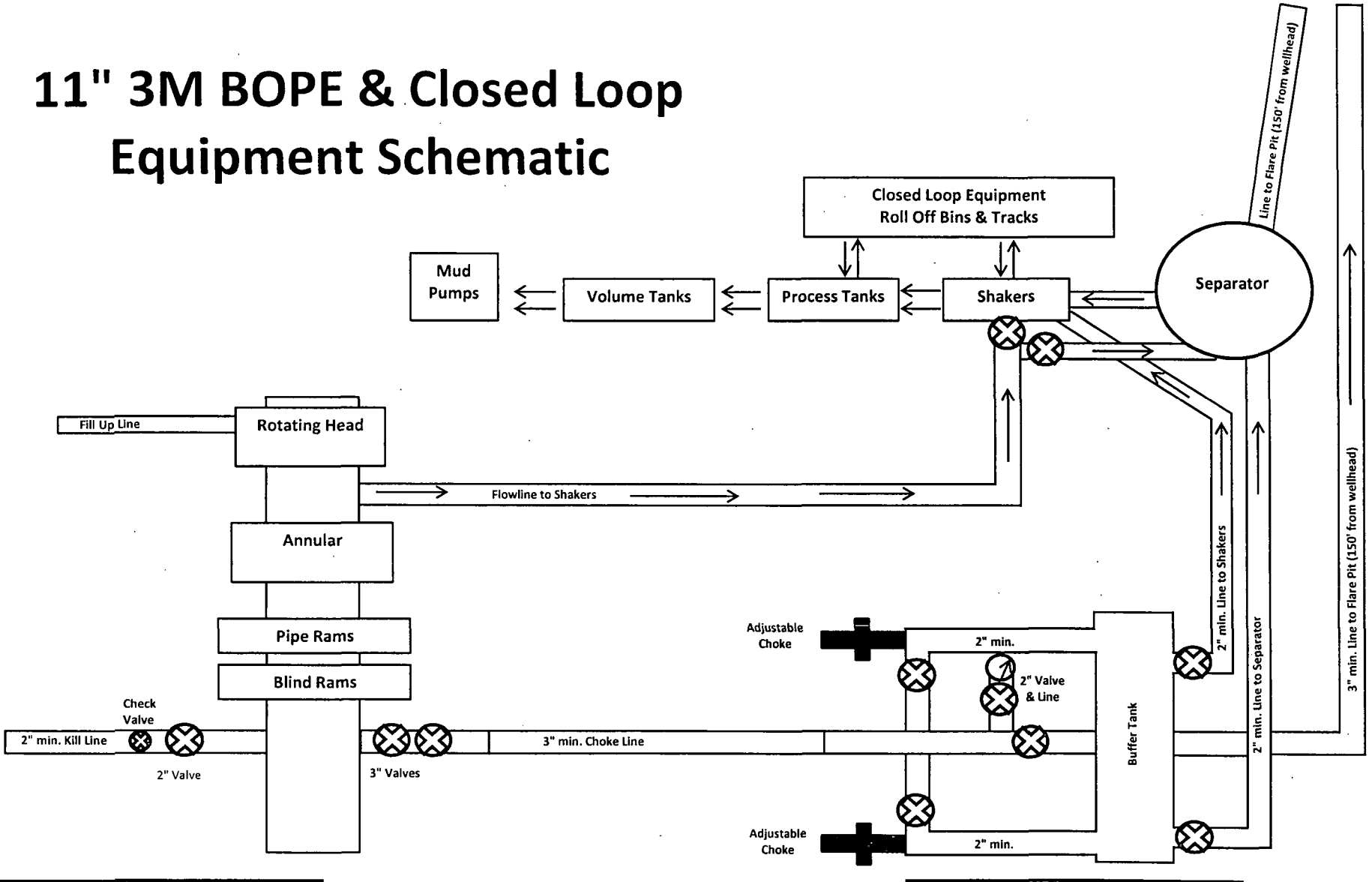


Exhibit "2"
Red Hills West 21 DM Fed Com #1H

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

Notes Regarding Blowout Preventer
Mewbourne Oil Company
Red Hills West 21 DM Fed Com #1H
150' FNL & 380' FWL
Sec. 21 T26S R32E
Lea County, New Mexico

I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.

II. Blowout preventer and all fittings must be in good condition with a minimum 3000 psi working pressure on 9 5/8" and 7" casing.

III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.

IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.

V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

H2S Diagram

Closed Loop Pad Dimensions 280' x 320'

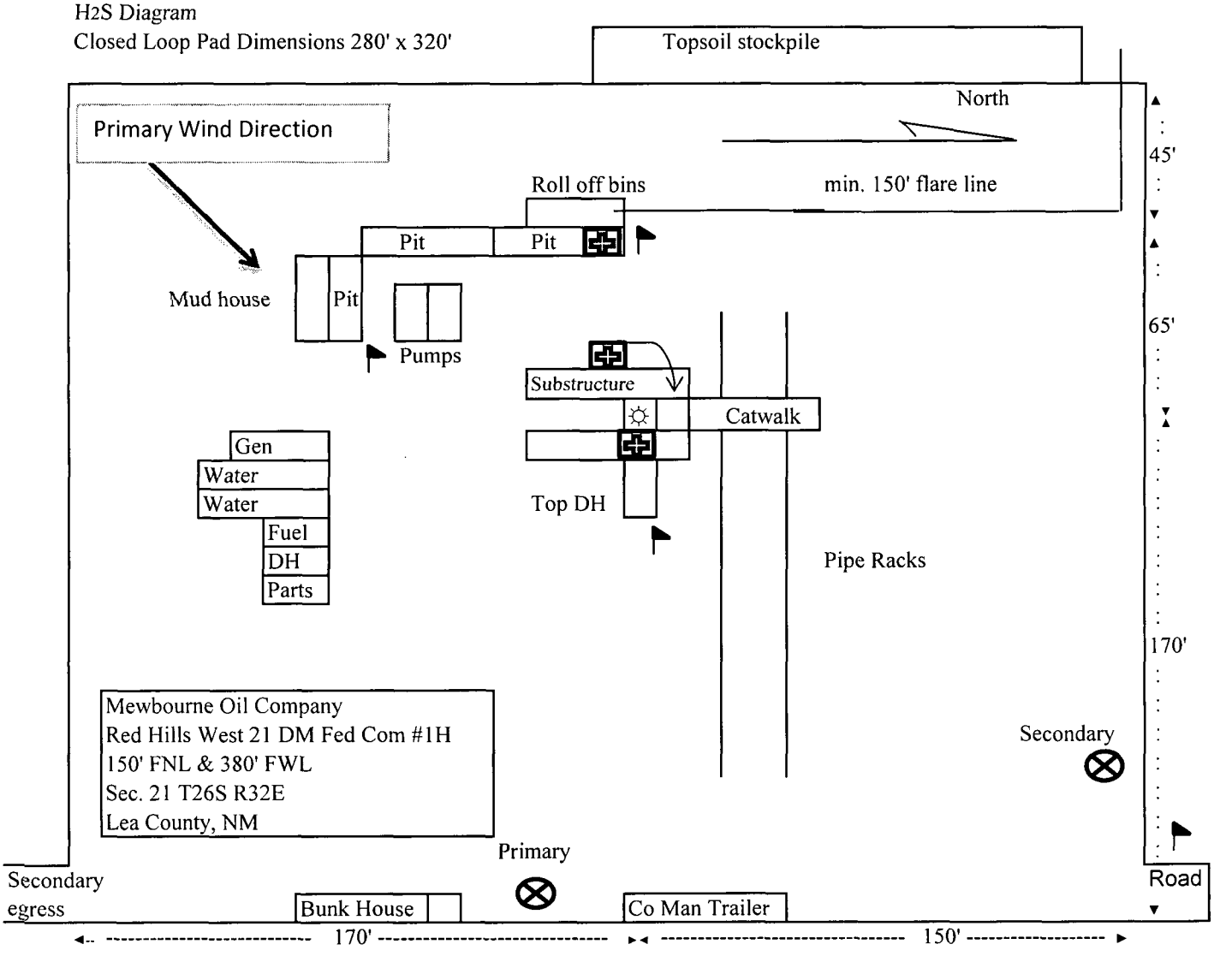


Exhibit 6

= Safety Stations

= Wind Markers

= H2S Monitors