

HOBBSDO

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED 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. NMNM125386A, Red Hills West Unit	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. Red Hills West Unit #012H	
2. Name of Operator Mewbourne Oil Company		9. API Well No. 70-025-42417	
3a. Address PO Box 5270 Hobbs, NM 88241		3b. Phone No. (include area code) 575-393-5905	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 330' FNL & 660' FWL, Sec. 10, T26S, R32E At proposed prod. zone 330' FSL & 660' FWL, Sec. 10, T26S, R32E		10. Field and Pool, or Exploratory Jennings Uppers Bone Spring Shale	
14. Distance in miles and direction from nearest town or post office* 29 miles west of Jal, NM		12. County or Parish Lea	
15. Distance from proposed* 330' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		13. State NM	
16. No. of acres in lease NMNM 105561 - 200 acres		17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* 490'-MOC Red Hills to nearest well, drilling, completed, West Unit #007 applied for, on this lease, ft.		20. BLM/BIA Bond No. on file NM-1693 nationwide, NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3251'		22. Approximate date work will start* 08/15/2014	
		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:

- 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>Bradley Bishop</i>	Name (Printed/Typed) BRADLEY BISHOP	Date 7-7-14
Title		
Approved by (Signature) <i>/s/ STEPHEN J. CAFFEY</i>	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date JAN 27 2015
Title FIELD MANAGER		

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

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHEDSEE ATTACHED FOR
CONDITIONS OF APPROVAL

FEB 03 2015

Drilling Program
Mewbourne Oil Company
Red Hills West Unit #012H
330' FNL & 660' FWL (SHL)
Sec 10-T26S-R32E
Lea County, New Mexico

1. The estimated tops of geological markers are as follows:

Rustler	935'
Top Salt	1275'
Base Salt/Tansil	4290'
Delaware	4520'
Bell Canyon	4550'
Cherry Canyon	5610'
Manzanita Marker	5750'
*Brushy Canyon	7245'
*Bone Spring	8640'

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

Water	Fresh water is anticipated at 240' and will be protected by setting surface casing at 960' 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 3/8" casing. A 3000# WP Double Ram BOP and 3000# WP Annular will be installed after running 9 5/8" 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. BOPE 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 3/8" annular to 1250' and the 9 5/8" 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 8857' & kick off to horizontal @ 9430' TVD. The well will be drilled to 13870' MD (9430' TVD). See attached directional plan.

5. Proposed casing and cementing program:

A. Casing Program:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>	<u>Jt Type</u>
17 1/2"	13 3/8" (new)	48#	H40	0'-960'	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-3400'	LT&C
12 1/4"	9 5/8" (new)	40#	J55	3400'-4300'	LT&C
12 1/4"	9 5/8" (new)	40#	N80	4300'-4450'	LT&C
8 3/4"	5 1/2" (new)	17#	P110	0-8857' MD	LT&C
8 3/4"	5 1/2" (new)	17#	P110	8857'-9757' MD	BT&C
8 3/4"	5 1/2" (new)	17#	P110	9757'- 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:

- see
COA
- i. Surface Casing: 510 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.12 cuft/sk. Mix @ 11.17 gal/sk FW. 200 sacks Class "C" cement w/2% CaCl₂. Yield at 1.34 cuft/sk. Mix @ 6.34 gal/sk FW. Cmt circulated to surface w/100% excess.
 - ii. Intermediate Casing: 700 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.12 cuft/sk. Mix @ 11.17 gal/sk FW. 200 sacks Class "C" cement w/2% CaCl₂. Yield at 1.34 cuft/sk. Mix water @ 6.34 gal/sk. Cmt circulated to surface w/25% excess.
 - iii. Production Casing: 1020 sacks Class H light cement (15:61:11) with fluid loss, LCM, & salt additives. Yield at 2.99 cuft/sk. Mix @ 17.43 gal/sk. Cmt calculated to tie back 200' into 9 5/8" casing @ 4250' w/25% excess.

*Referring to above blends of light 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.

6. Mud Program:

see
COA

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-960' 1040'	FW spud mud	8.6-9.0	32-34	NA
960'-4450'	Brine water	10.0-10.2	28-30	NA
4450'-8857'	FW mud	8.6-8.8	28-30	NA
8857'- TD	FW w/Polymer	8.5-8.7	32-35	15

*Visual mud monitoring system shall be in place to detect volume changes indicating loss or gain of circulation fluid volume. Sufficient mud materials will be kept on location at all times to combat abnormal conditions.

7. Evaluation Program:

Samples: 10' samples from surface casing to TD
Logging: Gyro from KOP-100' (8757') to surface and GR from 8757' to TD. Cased hole logs (GR & CNL) will be ran during completion process from 8757' to surface.

8. Downhole Conditions

see
COA

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 (.43368 x 9430'=4089.60 psi)

9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 60 days involved in drilling operations and an additional 20 days involved in completion operations on the project.

Mewbourne Oil Company

Lea County, New Mexico
Red Hills West Unit #012H
Sec 10, T26S, R32E
SL: 330 FNL & 660 FWL
BHL: 330 FSL & 660 FWL

Plan: Design #1

Standard Planning Report

01 July, 2014

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #012H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3270.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3270.0usft (Original Well Elev)
Site:	Red Hills West Unit #012H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330 FSL & 660 FWL		
Design:	Design #1		

Project:	Lea County, New Mexico		
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:	Red Hills West Unit #012H		
Site Position:	Northings:	387,621.50 usft	Latitude: 32° 3' 50.201 N
From: Map	Easting:	705,853.00 usft	Longitude: 103° 40' 7.770 W
Position Uncertainty:	0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.35 °

Well:	Sec 10, T26S, R32E		
Well Position	+N/-S	0.0 usft	Northings: 387,621.50 usft
	+E/-W	0.0 usft	Easting: 705,853.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,270.0 usft
			Ground Level: 3,250.0 usft

Wellbore:	BHL: 330 FSL & 660 FWL		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	7/1/2014	7.24
			Dip Angle
			59.95
			Field Strength
			48,206

Design:	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			179.34

Plan Sections			
Measured	Inclination	Azimuth	Vertical
Depth	(°)	(°)	Depth
(usft)			(usft)
0.0	0.00	0.00	0.0
8,857.0	0.00	0.00	8,857.0
9,757.1	90.00	179.34	9,430.0
13,870.7	90.00	179.34	9,430.0
			+N/-S
			(usft)
			0.0
			+E/-W
			(usft)
			6.6
			Dogleg
			Rate
			(°/100usft)
			10.00
			Build
			Rate
			(°/100usft)
			10.00
			Turn
			Rate
			(°/100usft)
			0.00
			TFO
			(°)
			179.34
			Target
			0.00 PBHL (330 FSL & 660

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Lea County, New Mexico
 Site: Red Hills West Unit #012H
 Well: Sec 10, T26S, R32E
 Wellbore: BHL: 330 FSL & 660 FWL
 Design: Design #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Site Red Hills West Unit #012H
 WELL @ 3270.0usft (Original Well Elev)
 WELL @ 3270.0usft (Original Well Elev)
 Grid
 Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #012H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3270.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3270.0usft (Original Well Elev)
Site:	Red Hills West Unit #012H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330 FSL & 660 FWL		
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)	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,857.0	0.00	0.00	8,857.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP @ 8857										
8,900.0	4.30	179.34	8,900.0	-1.6	0.0	1.6	10.00	10.00	0.00	
9,000.0	14.30	179.34	8,998.5	-17.8	0.2	17.8	10.00	10.00	0.00	
9,100.0	24.30	179.34	9,092.8	-50.8	0.6	50.8	10.00	10.00	0.00	
9,200.0	34.30	179.34	9,179.9	-99.6	1.1	99.6	10.00	10.00	0.00	
9,300.0	44.30	179.34	9,257.2	-162.9	1.9	162.9	10.00	10.00	0.00	
9,400.0	54.30	179.34	9,322.3	-238.6	2.7	238.6	10.00	10.00	0.00	
9,500.0	64.30	179.34	9,373.3	-324.4	3.7	324.5	10.00	10.00	0.00	
9,600.0	74.29	179.34	9,408.6	-417.9	4.8	417.9	10.00	10.00	0.00	
9,700.0	84.29	179.34	9,427.2	-516.0	5.9	516.0	10.00	10.00	0.00	
9,757.1	90.00	179.34	9,430.0	-573.0	6.6	573.0	9.99	9.99	0.00	
LP @ 9757 MD (903 FNL & 667 FWL)										
9,800.0	90.00	179.34	9,430.0	-615.9	7.1	615.9	0.00	0.00	0.00	
9,900.0	90.00	179.34	9,430.0	-715.9	8.2	715.9	0.00	0.00	0.00	
10,000.0	90.00	179.34	9,430.0	-815.9	9.3	815.9	0.00	0.00	0.00	
10,100.0	90.00	179.34	9,430.0	-915.9	10.5	915.9	0.00	0.00	0.00	
10,200.0	90.00	179.34	9,430.0	-1,015.9	11.6	1,015.9	0.00	0.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #012H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3270.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3270.0usft (Original Well Elev)
Site:	Red Hills West Unit #012H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330 FSL & 660 FWL		
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)
10,300.0	90.00	179.34	9,430.0	-1,115.9	12.8	1,115.9	0.00	0.00	0.00
10,400.0	90.00	179.34	9,430.0	-1,215.9	13.9	1,215.9	0.00	0.00	0.00
10,500.0	90.00	179.34	9,430.0	-1,315.8	15.1	1,315.9	0.00	0.00	0.00
10,600.0	90.00	179.34	9,430.0	-1,415.8	16.2	1,415.9	0.00	0.00	0.00
10,700.0	90.00	179.34	9,430.0	-1,515.8	17.4	1,515.9	0.00	0.00	0.00
10,800.0	90.00	179.34	9,430.0	-1,615.8	18.5	1,615.9	0.00	0.00	0.00
10,900.0	90.00	179.34	9,430.0	-1,715.8	19.7	1,715.9	0.00	0.00	0.00
11,000.0	90.00	179.34	9,430.0	-1,815.8	20.8	1,815.9	0.00	0.00	0.00
11,100.0	90.00	179.34	9,430.0	-1,915.8	22.0	1,915.9	0.00	0.00	0.00
11,200.0	90.00	179.34	9,430.0	-2,015.8	23.1	2,015.9	0.00	0.00	0.00
11,300.0	90.00	179.34	9,430.0	-2,115.8	24.2	2,115.9	0.00	0.00	0.00
11,400.0	90.00	179.34	9,430.0	-2,215.8	25.4	2,215.9	0.00	0.00	0.00
11,500.0	90.00	179.34	9,430.0	-2,315.8	26.5	2,315.9	0.00	0.00	0.00
11,600.0	90.00	179.34	9,430.0	-2,415.8	27.7	2,415.9	0.00	0.00	0.00
11,700.0	90.00	179.34	9,430.0	-2,515.8	28.8	2,515.9	0.00	0.00	0.00
11,800.0	90.00	179.34	9,430.0	-2,615.8	30.0	2,615.9	0.00	0.00	0.00
11,900.0	90.00	179.34	9,430.0	-2,715.8	31.1	2,715.9	0.00	0.00	0.00
12,000.0	90.00	179.34	9,430.0	-2,815.7	32.3	2,815.9	0.00	0.00	0.00
12,100.0	90.00	179.34	9,430.0	-2,915.7	33.4	2,915.9	0.00	0.00	0.00
12,200.0	90.00	179.34	9,430.0	-3,015.7	34.6	3,015.9	0.00	0.00	0.00
12,300.0	90.00	179.34	9,430.0	-3,115.7	35.7	3,115.9	0.00	0.00	0.00
12,400.0	90.00	179.34	9,430.0	-3,215.7	36.8	3,215.9	0.00	0.00	0.00
12,500.0	90.00	179.34	9,430.0	-3,315.7	38.0	3,315.9	0.00	0.00	0.00
12,600.0	90.00	179.34	9,430.0	-3,415.7	39.1	3,415.9	0.00	0.00	0.00
12,700.0	90.00	179.34	9,430.0	-3,515.7	40.3	3,515.9	0.00	0.00	0.00
12,800.0	90.00	179.34	9,430.0	-3,615.7	41.4	3,615.9	0.00	0.00	0.00
12,900.0	90.00	179.34	9,430.0	-3,715.7	42.6	3,715.9	0.00	0.00	0.00
13,000.0	90.00	179.34	9,430.0	-3,815.7	43.7	3,815.9	0.00	0.00	0.00
13,100.0	90.00	179.34	9,430.0	-3,915.7	44.9	3,915.9	0.00	0.00	0.00
13,200.0	90.00	179.34	9,430.0	-4,015.7	46.0	4,015.9	0.00	0.00	0.00
13,300.0	90.00	179.34	9,430.0	-4,115.7	47.2	4,115.9	0.00	0.00	0.00
13,400.0	90.00	179.34	9,430.0	-4,215.7	48.3	4,215.9	0.00	0.00	0.00
13,500.0	90.00	179.34	9,430.0	-4,315.7	49.5	4,315.9	0.00	0.00	0.00
13,600.0	90.00	179.34	9,430.0	-4,415.6	50.6	4,415.9	0.00	0.00	0.00
13,700.0	90.00	179.34	9,430.0	-4,515.6	51.7	4,515.9	0.00	0.00	0.00
13,800.0	90.00	179.34	9,430.0	-4,615.6	52.9	4,615.9	0.00	0.00	0.00
13,870.7	90.00	179.34	9,430.0	-4,686.3	53.7	4,686.6	0.00	0.00	0.00
PBHL (330 FSL & 660 FWL)									

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico
Site: Red Hills West Unit #012H
Well: Sec 10, T26S, R32E
Wellbore: BHL 330 FSL & 660 FWL
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Red Hills West Unit #012H
 WELL @ 3270.0usft (Original Well Elev)
 WELL @ 3270.0usft (Original Well Elev)
 Grid
 Minimum Curvature

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
KOP @ 8857	0.00	0.00	8,857.0	0.0	0.0	387,621.50	705,853.00	32° 3' 50.201 N	103° 40' 7.770 W
- plan hits target center									
- Point									
LP @ 9757 MD (903 FN	0.00	0.00	9,430.0	-573.0	6.6	387,048.50	705,859.60	32° 3' 44.530 N	103° 40' 7.734 W
- plan hits target center									
- Point									
PBHL (330 FSL & 660 F	0.00	0.00	9,430.0	-4,686.3	53.7	382,935.20	705,906.70	32° 3' 3.822 N	103° 40' 7.481 W
- plan hits target center									
- Point									

13 5/8" 2M BOPE & Closed Loop Equipment Schematic

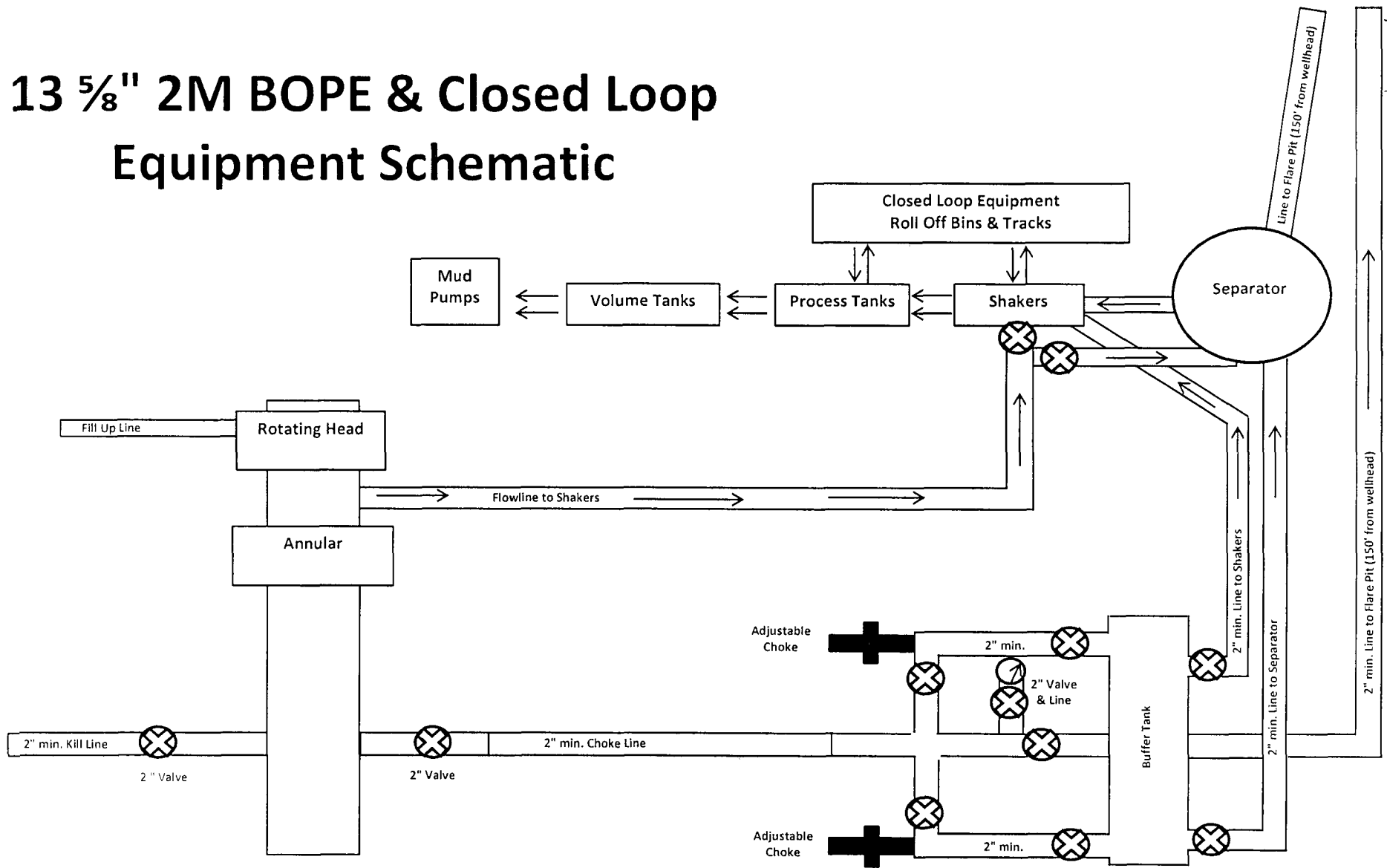
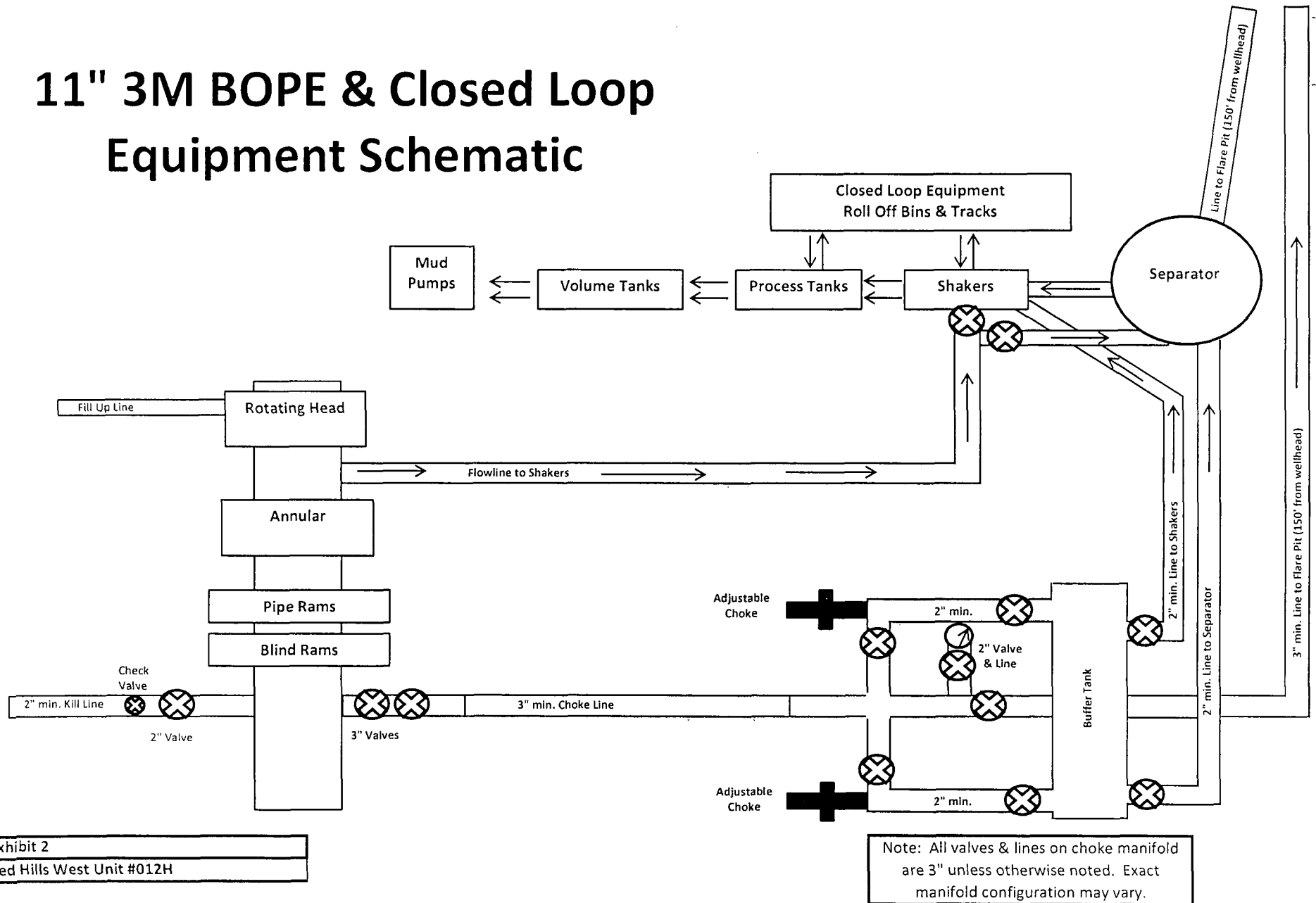


Exhibit 2A
Red Hills West Unit #012H

11" 3M BOPE & Closed Loop Equipment Schematic



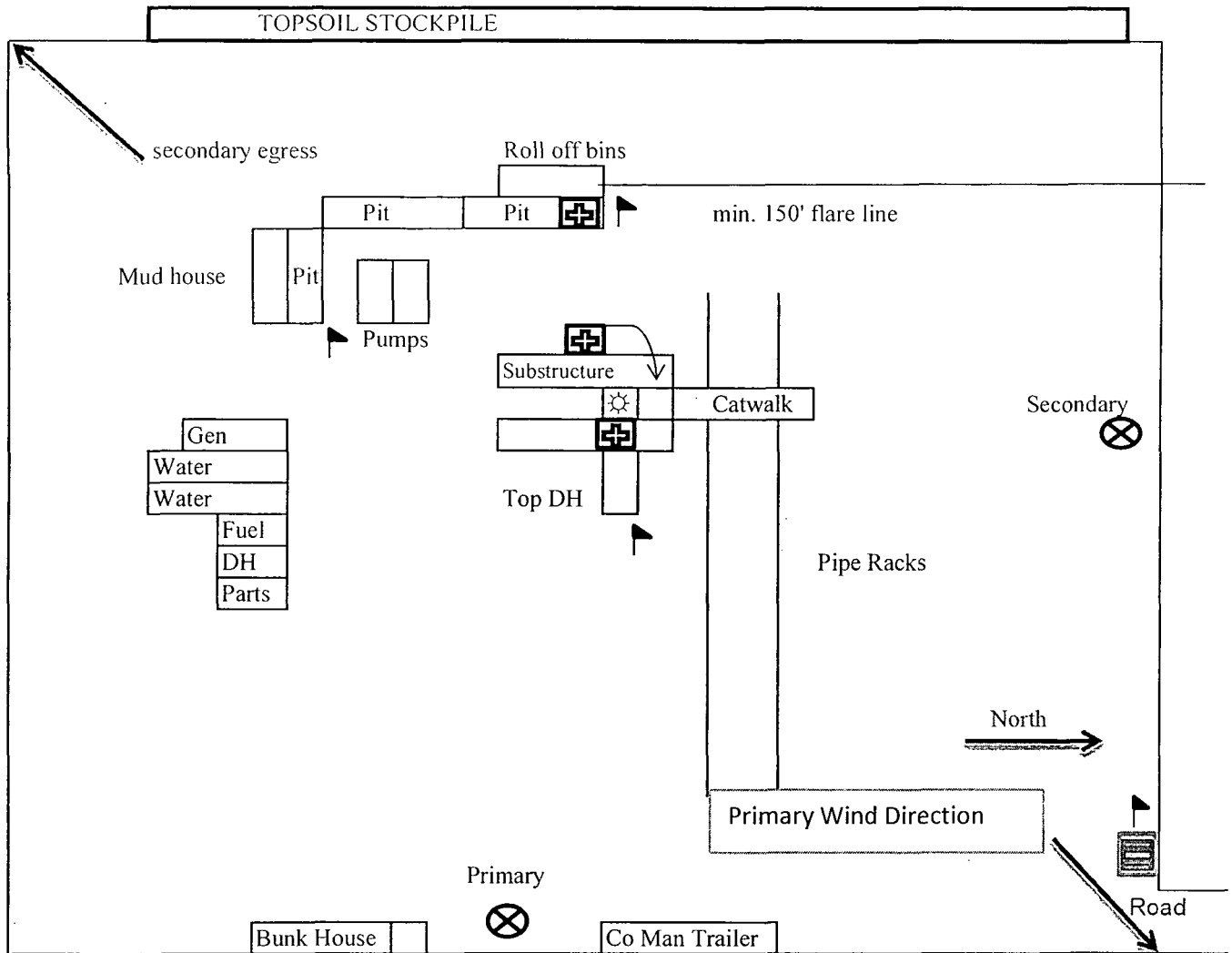
Notes Regarding Blowout Preventer

Mewbourne Oil Company

Red Hills West Unit #012H
330' FNL & 660' FWL (SHL)
Sec 10-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.



Mewbourne Oil Company
 Red Hills West Unit #012H
 330' FNL & 660' FWL
 Sec. 10 T26S R32E
 Lea County, NM

