12-1232

Form 3160-3
(August 2007)

OCD Artesia

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.: NM-103878 (SL & BHL)

6. If Indian, Allotee or Tribe Name:

7. If Unit or CA Agreement, Name and No.: RS 2/4/2013

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: Thompson 8 Federal #3H <37997>

2. Name of Operator: Mewbourne Oil Company <14744>

9. API Well No.: 30-015-41040

3a. Address: PO Box 5270, Hobbs, NM 88241

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

10. Field and Pool, or Exploratory: Winchester Bone Spring (65010)

4. Location of Well (Report location clearly and in accordance with any State requirements.*)

At surface: 2230' FNL & 150' FEL, Sec. 8 T20S R29E

At proposed prod. zone: 1980' FNL & 330' FWL, Sec. 8 T20S R29E

11. Sec., T. R. M. or Blk. and Survey or Area: Sec. 8 T20S R29E

14. Distance in miles and direction from nearest town or post office*: 14 miles NE of Carlsbad, NM

12. County or Parish: Eddy

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: 320

17. Spacing Unit dedicated to this well: 160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 330' (Marathon Oil - Superior Fed Com #1.

19. Proposed Depth: ~~12,550'~~ MD 12563' / 7879'-TVD

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3279' - GL

22. Approximate date work will start*: 12/01/2012

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:

Title:

Approved by (Signature): /s/ Chris Walls — Name (Printed/Typed): — Date: JAN 28 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)

Capitan Controlled Water Basin

RECEIVED
JAN 31 2013
NMOCD ARTESIA

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-41040	65010	Winchester Bone Spring Pool

Property Code	Property Name	Well Number
37199	THOMPSON 8 FEDERAL	3H

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3279'

Surface Location

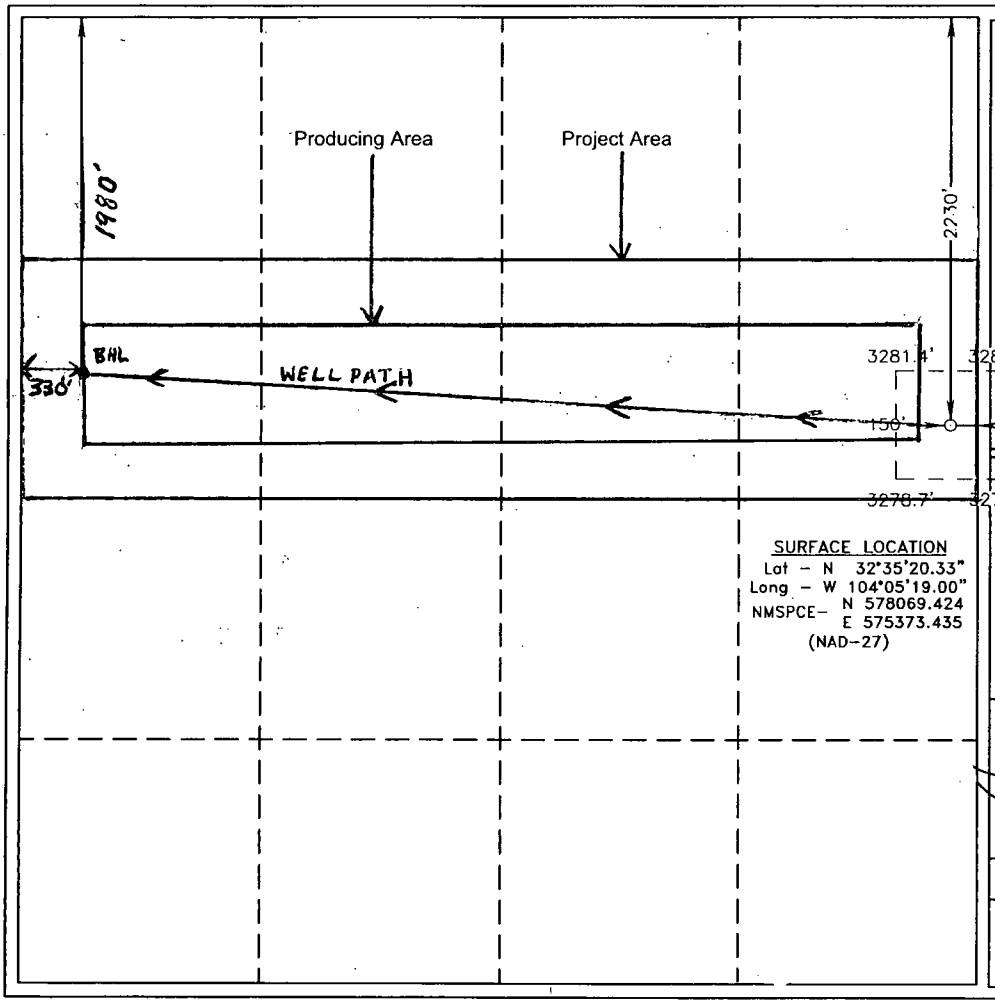
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	8	20 S	29 E		2230	NORTH	150	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	8	20 S	29 E		1980	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 10/25/12 Date

NMYOUNG
Printed Name

Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 2012
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

No. 27304

Certificate No. Gary L. Jones 7977

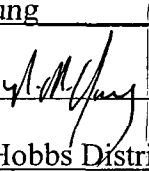
BASIN SURVEYS 27304

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
(575) 393-5905

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 25 day of Oct, 2012.

Name: NM Young

Signature: 

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

Drilling Program
Mewbourne Oil Company
Thompson "8" Federal #3H
2230' FNL & 150' FEL (SHL)
Sec 8-T20S-R29E
Eddy County, New Mexico

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

Rustler	275'
Top Salt	330'
Base Salt	950'
Yates	1100'
Seven Rivers	1330'
Queen	NP
Capitan	1350'
Grayburg	NP
San Andres	NP
*Delaware	3350'
*Bone Spring	5720'

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

Water	Fresh water is anticipated at 45' and will be protected by setting surface casing at 300' 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:**
Mewbourne requests a variance to install a 2M diverter after running the 20" casing. 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 strings. 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 7" & 9 ⅝" BOPE to 3000# and both Annular BOPs 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 to7476' & kick off to horizontal @ 7954' TVD. The well will be drilled to 12562' MD (7879' TVD). See attached directional plan.

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

A. Casing Program:

See COA

Hole Size	Casing	Wt/Ft.	Grade	Depth	Jt Type
26"	20" (new)	94#	K55	0'-~~300'~~ 350'	BT&C
17 ½"	13 ⅜" (new)	48#	H40	0'-1200'	ST&C
12 ¼"	9 ⅝" (new)	36#	J55	0'-3250'	LT&C
8 ¾"	7" (new)	26#	P110	0'-7476' MD	LT&C
8 ¾"	7" (new)	26#	P110	7476'-7954' MD	BT&C
6 1/8"	4 ½" (new)	11.6#	P110	~~7954~~ 7754'-12550' MD	LT&C

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

B. Cementing Program:

20" i. Surface Casing: 400 sacks Class "C" (35:65:4) light cement w/ 2% CaCl2 & LCM additives. Yield at 2.0 cuft/sk. 200 sacks Class "C" cement w/ 2% CaCl2. Yield at 1.34 cuft/sk. Cmt circulated to surface w/100% excess.

13 3/8" ii. 1st Intermediate Casing: 690 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.0 cuft/sk. 200 sacks Class "C" cement w/2% CaCl2. Yield at 1.34 cuft/sk. Cmt circulated to surface w/25% excess.

9 5/8" iii. 2nd Intermediate Casing: 560 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.0 cuft/sk. 200 sacks Class "C" cement w/2% CaCl2. Yield at 1.34 cuft/sk. Cmt circulated to surface w/25% excess.

7" iii Production Casing: 450 sacks Class H light cement (35:65:4) with fluid loss, LCM, & salt additives. Yield at 2.12 cuft/sk. 400 sacks Class H cement containing fluid loss additives. Yield at 1.18 cuft/sk cmt calculated to tie into 9 5/8" casing at 900' w/25% excess.

4 1/2" 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 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:

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-300' 350	FW spud mud	8.6-9.0	32-34	NA
300'-1200'	Brine water	10.0-10.2	28-30	NA
1200'-7476'(KOP)	FW	8.3-8.6	28-30	NA
7476'- TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program: See COA

Samples: 10' samples from surface casing to TD
Logging: GR/N & Gyro from KOP-100(7375') to surface. GR from 7375' 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 (.43368x7879'=3440.60psi)

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

EDDY COUNTY, NM
SECTION 8
THOMPSON 8 FEDERAL #3H

Wellbore #1

Plan: #3H PWB

Standard Planning Report

02 October, 2012

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well THOMPSON 8 FEDERAL #3H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Project:	EDDY COUNTY, NM	**MD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	**North Reference:**	Grid
Well:	THOMPSON 8 FEDERAL #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	#3H PWB		

Project EDDY COUNTY, NM, NM-EAST

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 8, H

Site Position:		**Northing:**	578,069.43 usft	**Latitude:**	32° 35' 20.329 N
From:	Map	**Easting:**	575,373.44 usft	**Longitude:**	104° 5' 19.004 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.13 °

Well THOMPSON 8 FEDERAL #3H

Well Position	**+N/-S**	0.0 usft	**Northing:**	578,069.43 usft	**Latitude:**	32° 35' 20.329 N
	+E/-W	0.0 usft	**Easting:**	575,373.44 usft	**Longitude:**	104° 5' 19.004 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,279.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/27/2012	7.69	60.40	48,651

Design #3H PWB

Audit Notes:

Version:	1	**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	273.06

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	
7,476.4	0.00	0.00	7,476.4	0.0	0.0	0.00	0.00	0.00	0.00	
8,234.6	90.99	273.06	7,953.8	25.9	-485.0	12.00	12.00	0.00	273.06	
12,562.6	90.99	273.06	7,879.0	256.5	-4,806.2	0.00	0.00	0.00	0.00	PBHL

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well THOMPSON 8 FEDERAL #3H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Project:	EDDY COUNTY, NM	**MD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	**North Reference:**	Grid
Well:	THOMPSON 8 FEDERAL #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	#3H PWB		

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
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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
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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

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well THOMPSON 8 FEDERAL #3H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3299.0usft (Original Well Elev)
Project:	EDDY COUNTY, NM	MD Reference:	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	North Reference:	Grid
Well:	THOMPSON 8 FEDERAL #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	#3H PWB		

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
7,476.4	0.00	0.00	7,476.4	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	2.83	273.06	7,500.0	0.0	-0.6	0.6	12.00	12.00	0.00
7,600.0	14.83	273.06	7,598.6	0.8	-15.9	15.9	12.00	12.00	0.00
7,700.0	26.83	273.06	7,691.9	2.7	-51.3	51.4	12.00	12.00	0.00
7,800.0	38.83	273.06	7,775.8	5.6	-105.4	105.5	12.00	12.00	0.00
7,900.0	50.83	273.06	7,846.6	9.4	-175.7	175.9	12.00	12.00	0.00
8,000.0	62.83	273.06	7,901.2	13.8	-259.1	259.5	12.00	12.00	0.00
8,100.0	74.83	273.06	7,937.2	18.8	-352.1	352.6	12.00	12.00	0.00
8,200.0	86.83	273.06	7,953.1	24.0	-450.5	451.1	12.00	12.00	0.00
8,234.6	90.99	273.06	7,953.8	25.9	-485.0	485.7	12.00	12.00	0.00
8,300.0	90.99	273.06	7,952.6	29.4	-550.3	551.1	0.00	0.00	0.00
8,400.0	90.99	273.06	7,950.9	34.7	-650.1	651.1	0.00	0.00	0.00
8,500.0	90.99	273.06	7,949.2	40.0	-750.0	751.0	0.00	0.00	0.00
8,600.0	90.99	273.06	7,947.5	45.4	-849.8	851.0	0.00	0.00	0.00
8,700.0	90.99	273.06	7,945.7	50.7	-949.7	951.0	0.00	0.00	0.00
8,800.0	90.99	273.06	7,944.0	56.0	-1,049.5	1,051.0	0.00	0.00	0.00
8,900.0	90.99	273.06	7,942.3	61.3	-1,149.3	1,151.0	0.00	0.00	0.00
9,000.0	90.99	273.06	7,940.6	66.7	-1,249.2	1,251.0	0.00	0.00	0.00
9,100.0	90.99	273.06	7,938.8	72.0	-1,349.0	1,351.0	0.00	0.00	0.00
9,200.0	90.99	273.06	7,937.1	77.3	-1,448.9	1,450.9	0.00	0.00	0.00
9,300.0	90.99	273.06	7,935.4	82.7	-1,548.7	1,550.9	0.00	0.00	0.00
9,400.0	90.99	273.06	7,933.6	88.0	-1,648.6	1,650.9	0.00	0.00	0.00
9,500.0	90.99	273.06	7,931.9	93.3	-1,748.4	1,750.9	0.00	0.00	0.00
9,600.0	90.99	273.06	7,930.2	98.6	-1,848.2	1,850.9	0.00	0.00	0.00
9,700.0	90.99	273.06	7,928.5	104.0	-1,948.1	1,950.9	0.00	0.00	0.00
9,800.0	90.99	273.06	7,926.7	109.3	-2,047.9	2,050.8	0.00	0.00	0.00
9,900.0	90.99	273.06	7,925.0	114.6	-2,147.8	2,150.8	0.00	0.00	0.00
10,000.0	90.99	273.06	7,923.3	120.0	-2,247.6	2,250.8	0.00	0.00	0.00
10,100.0	90.99	273.06	7,921.5	125.3	-2,347.5	2,350.8	0.00	0.00	0.00
10,200.0	90.99	273.06	7,919.8	130.6	-2,447.3	2,450.8	0.00	0.00	0.00
10,300.0	90.99	273.06	7,918.1	135.9	-2,547.1	2,550.8	0.00	0.00	0.00
10,400.0	90.99	273.06	7,916.4	141.3	-2,647.0	2,650.8	0.00	0.00	0.00
10,500.0	90.99	273.06	7,914.6	146.6	-2,746.8	2,750.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well THOMPSON 8 FEDERAL #3H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Project:	EDDY COUNTY, NM	**MD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	**North Reference:**	Grid
Well:	THOMPSON 8 FEDERAL #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	#3H PWB		

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)
10,600.0	90.99	273.06	7,912.9	151.9	-2,846.7	2,850.7	0.00	0.00	0.00
10,700.0	90.99	273.06	7,911.2	157.3	-2,946.5	2,950.7	0.00	0.00	0.00
10,800.0	90.99	273.06	7,909.5	162.6	-3,046.4	3,050.7	0.00	0.00	0.00
10,900.0	90.99	273.06	7,907.7	167.9	-3,146.2	3,150.7	0.00	0.00	0.00
11,000.0	90.99	273.06	7,906.0	173.2	-3,246.0	3,250.7	0.00	0.00	0.00
11,100.0	90.99	273.06	7,904.3	178.6	-3,345.9	3,350.7	0.00	0.00	0.00
11,200.0	90.99	273.06	7,902.5	183.9	-3,445.7	3,450.6	0.00	0.00	0.00
11,300.0	90.99	273.06	7,900.8	189.2	-3,545.6	3,550.6	0.00	0.00	0.00
11,400.0	90.99	273.06	7,899.1	194.6	-3,645.4	3,650.6	0.00	0.00	0.00
11,500.0	90.99	273.06	7,897.4	199.9	-3,745.3	3,750.6	0.00	0.00	0.00
11,600.0	90.99	273.06	7,895.6	205.2	-3,845.1	3,850.6	0.00	0.00	0.00
11,700.0	90.99	273.06	7,893.9	210.5	-3,944.9	3,950.6	0.00	0.00	0.00
11,800.0	90.99	273.06	7,892.2	215.9	-4,044.8	4,050.5	0.00	0.00	0.00
11,900.0	90.99	273.06	7,890.4	221.2	-4,144.6	4,150.5	0.00	0.00	0.00
12,000.0	90.99	273.06	7,888.7	226.5	-4,244.5	4,250.5	0.00	0.00	0.00
12,100.0	90.99	273.06	7,887.0	231.9	-4,344.3	4,350.5	0.00	0.00	0.00
12,200.0	90.99	273.06	7,885.3	237.2	-4,444.2	4,450.5	0.00	0.00	0.00
12,300.0	90.99	273.06	7,883.5	242.5	-4,544.0	4,550.5	0.00	0.00	0.00
12,400.0	90.99	273.06	7,881.8	247.8	-4,643.8	4,650.5	0.00	0.00	0.00
12,500.0	90.99	273.06	7,880.1	253.2	-4,743.7	4,750.4	0.00	0.00	0.00
12,562.6	90.99	273.06	7,879.0	256.5	-4,806.2	4,813.0	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 - plan hits target center - Point	0.00	0.00	7,879.0	256.5	-4,806.2	578,325.93	570,567.28	32° 35' 22.973 N	104° 6' 15.173 W
LP - plan misses target center by 1.2usft at 8234.5usft MD (7953.8 TVD, 25.9 N, -484.9 E) - Point	0.00	0.00	7,954.0	24.7	-485.0	578,094.12	574,888.47	32° 35' 20.584 N	104° 5' 24.672 W

Mewbourne Oil Company

THOMPSON 8 FEDERAL #3H

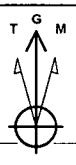
County: EDDY COUNTY, NM
Formation: Second Bone Springs "C" Sand
Datum: NAD 1927 (NADCON CONUS)
Zone: New Mexico East 3001
DATE: 14:26, October 02 2012
System Datum: Mean Sea Level
GRID CORRECTION: 7.56° E

WELL NAME: THOMPSON 8 FEDERAL #3H

0.13° West GROUND ELEVATION: 3279.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	578069.42	575373.44	32° 35' 20.329 N	104° 5' 19.004 W

No formation data is available

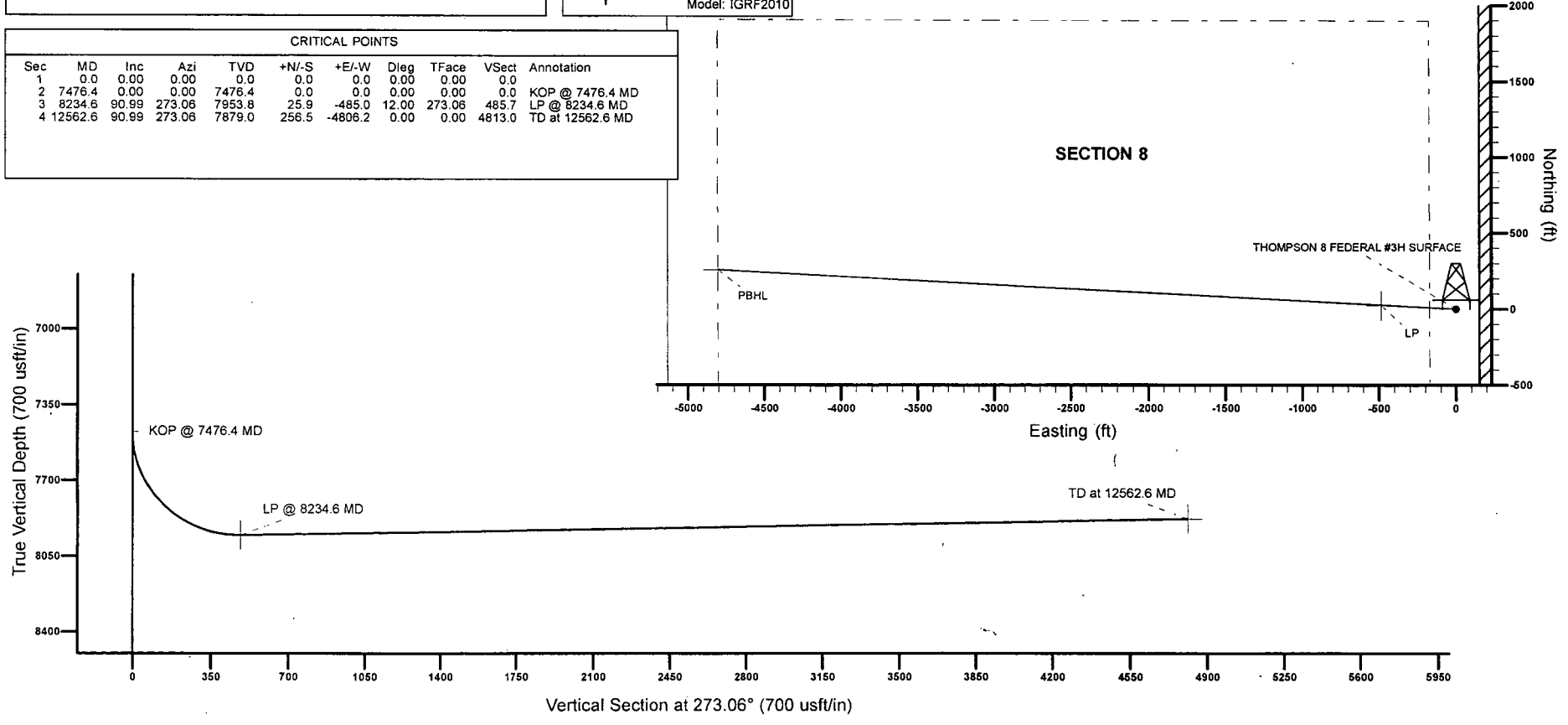


Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.56°

Magnetic Field
Strength: 48651.3snT
Dip Angle: 60.40°
Date: 9/27/2012
Model: IGRF2010

CRITICAL POINTS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	7476.4	0.00	0.00	7476.4	0.0	0.0	0.00	0.00	0.0	KOP @ 7476.4 MD
3	8234.6	90.99	273.06	7953.8	25.9	-485.0	12.00	273.06	485.7	LP @ 8234.6 MD
4	12562.6	90.99	273.06	7879.0	256.5	-4806.2	0.00	0.00	4813.0	TD at 12562.6 MD



13 ⅝" 2M BOPE & Closed Loop Equipment Schematic

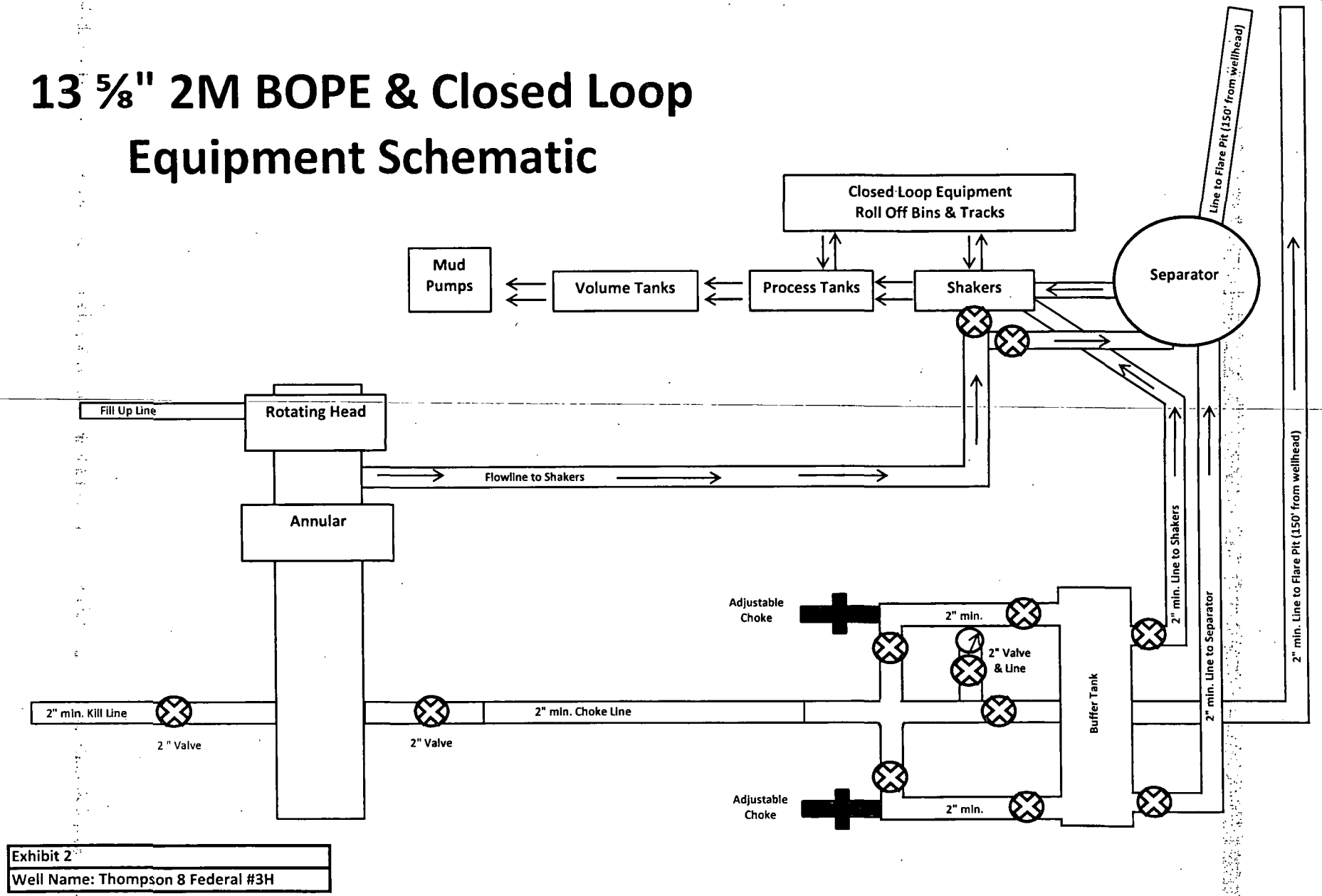


Exhibit 2
Well Name: Thompson 8 Federal #3H

11" 3M BOPE & Closed Loop Equipment Schematic

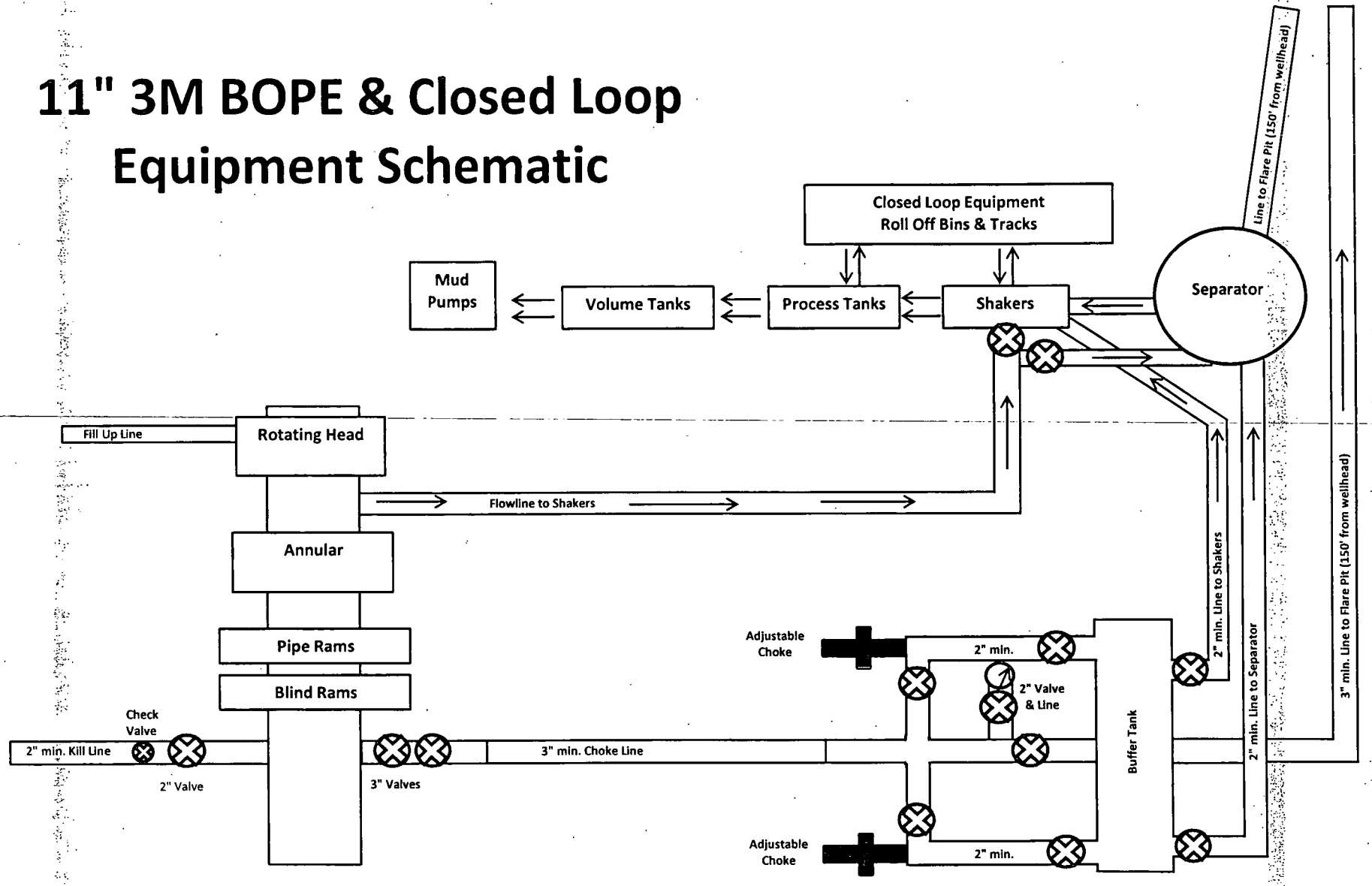


Exhibit 2A
Well Name: Thompson 8 Federal #3H

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

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company
Thompson "8" Federal #3H
870' FNL & 310' FEL
Sec 8-T20S-R29E
Eddy County, New Mexico

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Yates formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

1. Well Control Equipment
   - A. Choke manifold with minimum of one adjustable choke.
   - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
   - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located in the dog house and at briefing areas. Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed, to comply with Onshore Order 6.

3. Hydrogen Sulfide Protection and Monitoring Equipment
Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems
A. Wind direction indicators as indicated on the wellsite diagram.
B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	**911 or 575-887-7551**
Ambulance Service	**911 or 575-885-2111**
Carlsbad Fire Dept	**911 or 575-616-7155**
Loco Hills Volunteer Fire Dept.	**911 or 575-677-3266**
Closest Medical Facility – Carlsbad Medical	**575-887-4100**

Mewbourne Oil Company	**Hobbs District Office**	**575-393-5905**
	Fax	**575-397-6252**
	2nd Fax	**575-393-7259**
District Manager	**Micky Young**	**575-390-0999**
Drilling Superintendent	**Frosty Lathan**	**575-390-4103**
Drilling Foreman	**Wesley Noseff**	**575-441-0729**
	Bradley Bishop	**575-390-6838**

20" Diverter & Closed Loop Equipment Schematic

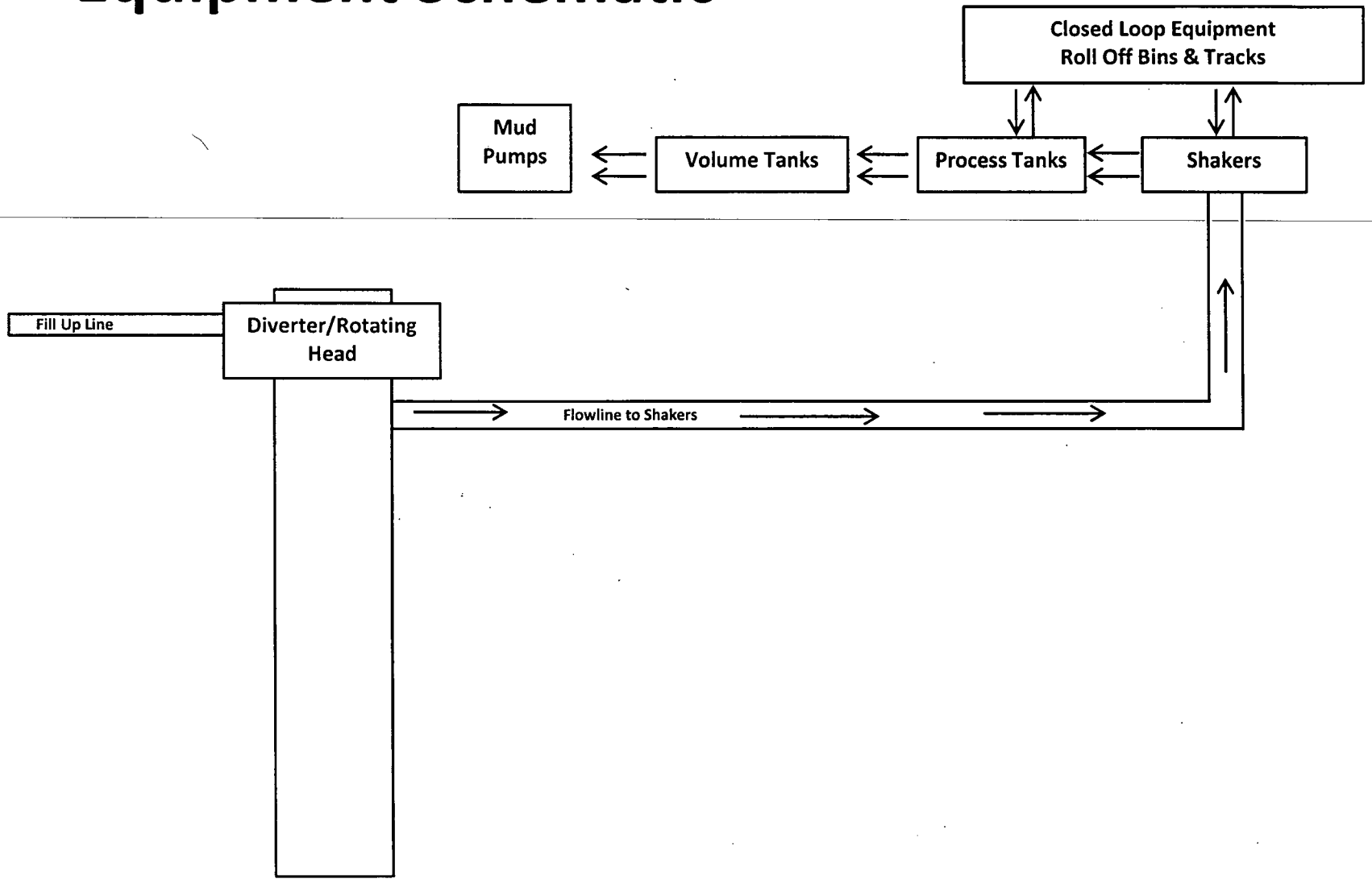


Exhibit 2B
Well Name: Thompson 8 Fed. #3H

Closed Loop Pad Dimensions 280' x 320'

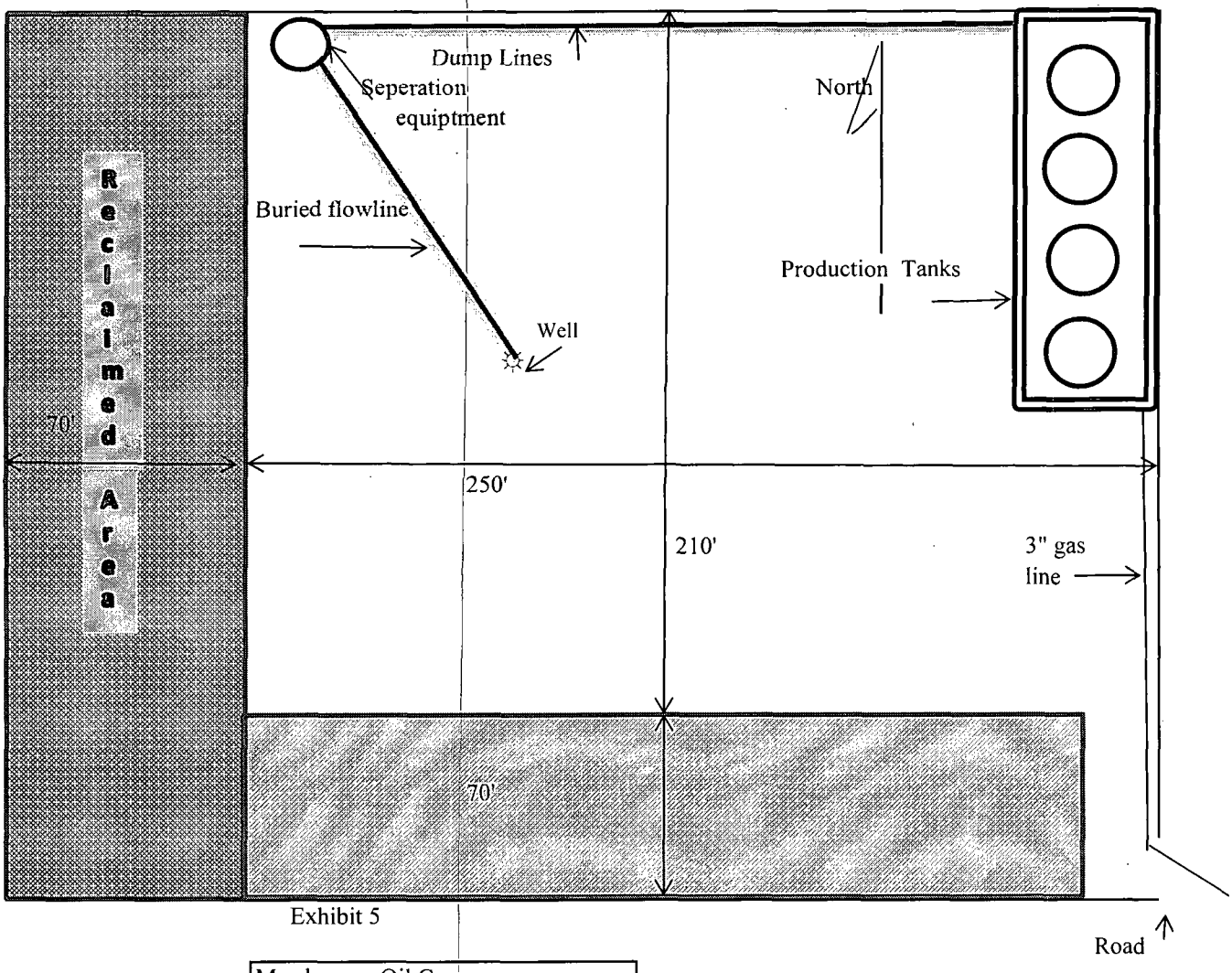


Exhibit 5

Mewbourne Oil Company
Thompson 8 Federal #3H
2230' FNL & 150' FEL
Sec. 8 T20S R29E
Eddy County, NM

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL
LEASE NO.:	NM103878
WELL NAME & NO.:	3H-THOMPSON 8 FEDERAL
SURFACE HOLE FOOTAGE:	2230'/N. & 150'/E.
BOTTOM HOLE FOOTAGE	1980'/N. & 330'/W.
LOCATION:	Section 8, T. 20 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.