

Form 3160-3  
(August 2007)

**OCD-ARTESIA**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No. 1004-013  
Expires July 31, 2010

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM 101967
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Mewbourne Oil Company		7. If Unit or CA Agreement, Name and No. <i>7/24/2012 TES</i>
3a. Address PO Box 5270 Hobbs, NM 88240	3b. Phone No. (include area code) (575) 393-5905	8. Lease Name and Well No. Empire "7" LI Fed #1H <i>439363</i>
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2240' FSL & 150' FWL (Lot 3) At proposed prod. zone 2240' FSL & 330' FEL (Unit I)		9. API Well No. <i>30-015-40519</i>
14. Distance in miles and direction from nearest town or post office* 16.4 miles East of Artesia, NM		10. Field and Pool, or Exploratory Empire Glorieta Yeso, 96210 <i>496210</i>
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 <del>1947.98</del> <i>292.96</i>	11. Sec., T. R. M. or Blk. and Survey or Area Sec 7, T17S, R29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 460' North of the Green B #11	19. Proposed Depth 8190' MD 4053' TVD	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3691' GL	22. Approximate date work will start* 08/01/2012	13. State NM
17. Spacing Unit dedicated to this well 146.4		
20. BLM/BIA Bond No. on file NM 1693, Nationwide		
23. Estimated duration 14 days		

**24. Attachments**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1

~~be attached to this form.~~

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

25. Signature <i>Brett Bednarz</i>	Name (Printed/Typed) Brett Bednarz	Date 03/02/2012
Title Petroleum Engineer		
Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) <i>/s/ Don Peterson</i>	Date <i>JUL 17 2012</i>
Title <b>FIELD MANAGER</b>		
Office <b>CARLSBAD FIELD OFFICE</b>		

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**

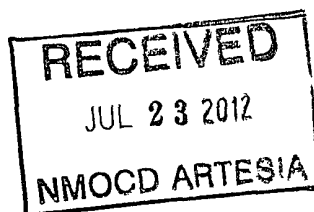
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

**Roswell Controlled Water Basin**

**Approval Subject to General Requirements  
& Special Stipulations Attached**



**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

# 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 2<sup>nd</sup> day of March, 2012.

Name: NM Young

Signature: Beth Beady for NM Young

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised July 16, 2010

Submit one copy to appropriate  
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-015-40519</b>	Pool Code <b>96210</b>	Pool Name <b>Empire Glorieta Yeso</b>
Property Code <b>39363</b>	Property Name <b>EMPIRE 7 LI FEDERAL</b>	Well Number <b>1H</b>
OGRID No. <b>14744</b>	Operator Name <b>MEWBOURNE OIL COMPANY</b>	Elevation <b>3691'</b>

Surface Location

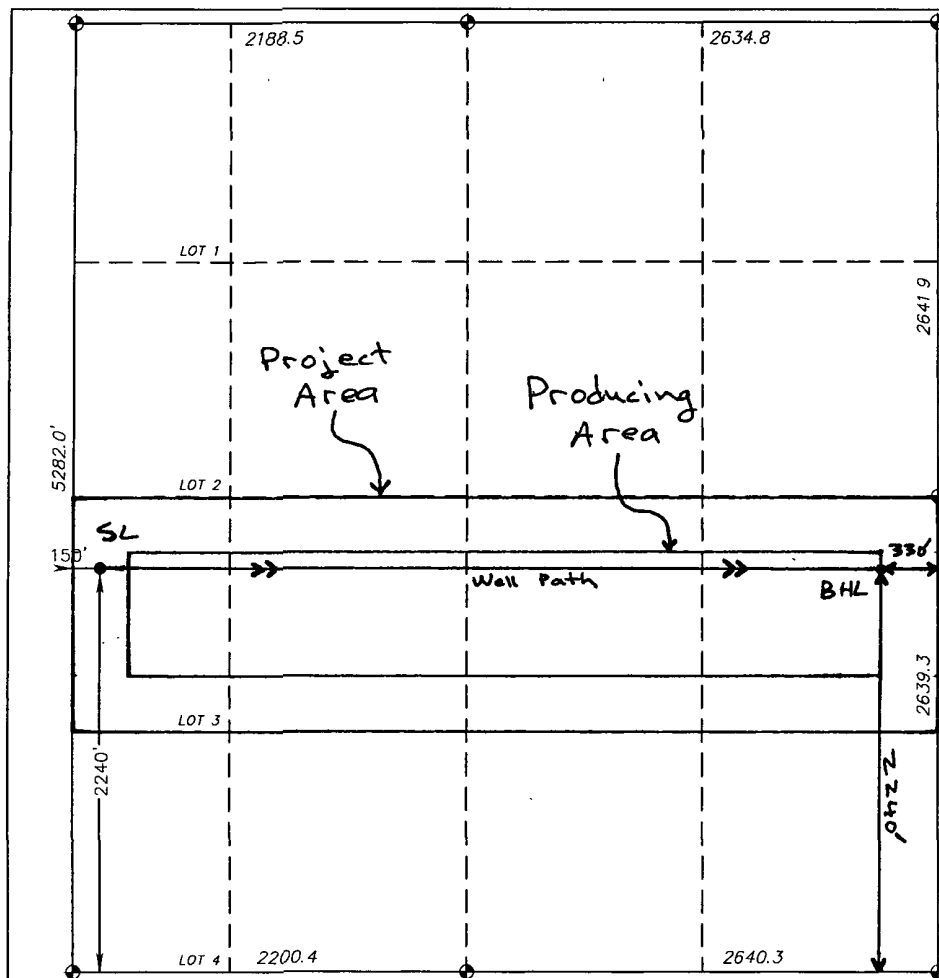
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	7	17 S	29 E		2240	SOUTH	150	WEST	EDDY

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
<b>I</b>	<b>7</b>	<b>17S</b>	<b>29E</b>		<b>2240</b>	<b>South</b>	<b>330</b>	<b>East</b>	<b>Eddy</b>

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
<b>146.40</b>			

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.

**Brett Bednarz** 3-2-12  
Signature Date

**Brett Bednarz**  
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 supervision, and that the same is true and correct to the best of my belief

Date Surveyed  
Signature of Professional Surveyor



Certificate No. Gary L. Jones 7977

BASIN SURVEYS 24838

**Drilling Program**  
**Mewbourne Oil Company**  
 Empire "7" LI Fed #1H  
 2240' FSL & 150' FWL (SHL)  
 Sec 7-T17S-R29E  
 Eddy County, New Mexico

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

Rustler	Near Surface
Top Salt	225'
B. Salt	690'
*Yates	855'
*Queen	1640'
Grayburg	2050'
*San Andres	2430'
*Glorieta	3790'
*Yeso	3885'

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

Water	Fresh water is anticipated @ 60' and will be protected by setting surface casing at 175' 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 2000# WP Double Ram BOP and 2000# WP Annular will be installed after running 7" & 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 7" & 9 5/8" BOPE to 2000# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1<sup>st</sup> test as per BLM Onshore Oil and Gas Order #2.

4. MOC proposes to drill a vertical wellbore to 3563' & kick off to horizontal @ 4040' TVD. The well will be drilled to 8190' MD (4053' 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'-175'	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-1010' **	LT&C
8 3/4"	7" (new)	26#	P110	0'-3563' MD	LT&C
8 3/4"	7" (new)	26#	P110	3563'-4311' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	4111'-8190' MD	LT&C

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

\*Subject to availability of casing.

\*\*Depth subject to change due to well conditions during drilling operations.

## B. Cementing Program:

- See COA*
- i. Surface Casing: 200 sks Class "C" cement w/ 2% CaCl<sub>2</sub>. Yield at 1.34 cuft/sk. Cmt circulated to surface w/ 100% excess.
  - i. Intermediate Casing: 100 sks Class "C" light (35:65:4) cement w/ salt & LCM additives. Yield at 1.97 cuft/sk. 200 sacks Class "C" cement w/ 2% CaCl<sub>2</sub>. Yield at 1.34 cuft/sk. Cmt circulated to surface w/ 25% excess.
  - iii. Production Casing: 150 sacks Class "H" light cement w/ salt, FL & LCM additives. Yield at 2.11 cuft/sk. 400 sacks Class "H" cement w/ FL additives. Yield at 1.29 cuft/sk. Cmt circulated to surface w/ 25% excess.
  - iii. 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:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0' - 175'	FW spud mud	8.6-9.0	32-34	NA
175' - 1010'	Brine water	10.0-10.2	28-30	NA
1010' - 3563' (KOP)	FW	8.5-8.7	28-30	NA
3563' - 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 & Gyro from KOP -100' (3463') to surface.

## 8. Downhole Conditions

Zones of abnormal pressure: None anticipated  
Zones of lost circulation: Anticipated in surface and intermediate holes  
Maximum bottom hole temperature: 100 degree F  
Maximum bottom hole pressure: 8.4 lbs/gal gradient or less

## 9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 15 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

# **Mewbourne Oil Co**

**Eddy County, New Mexico**

**Sec 7, T17S, R29E**

**Empire 7 LI Federal #1H**

**Wellbore #1**

**Plan: Design #1**

## **DDC Well Planning Report**

**24 February, 2012**



**DDC**  
Well Planning Report



Database:	EDM 5000.1 Single-User Db	Local Co-ordinate Reference:	Well Empire 7 LI Federal #1H
Company:	Mewbourne Oil Co	TVD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Project:	Eddy County, New Mexico	MD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Site:	Sec 7, T17S, R29E	North Reference:	Grid
Well:	Empire 7 LI Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project:	Eddy 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:	Sec 7, T17S, R29E		
Site Position:		Northing:	670,538.10 usft
From:	Map	Easting:	565,344.37 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 50' 35.569 N
		Longitude:	104° 7' 14.058 W
		Grid Convergence:	0.12 °

Well:	Empire 7 LI Federal #1H		
Well Position	+N/-S	1,694.7 usft	Northing:
	+E/-W	64.8 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	32° 50' 52.338 N
		Longitude:	104° 7' 13.258 W
		Ground Level:	3,691.0 usft

Wellbore:	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/24/2012	7.80	60.65	48,859

Design:	Design #1		
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Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0

Vertical Section	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	89.87

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	
3,562.5	0.00	0.00	3,562.5	0.0	0.0	0.00	0.00	0.00	0.00	
4,310.9	89.81	89.87	4,040.0	1.1	475.9	12.00	12.00	0.00	89.87	
8,189.8	89.81	89.87	4,053.0	9.8	4,354.7	0.00	0.00	0.00	0.00	Empire 7 LI Fed #1H

# DDC

## Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Empire 7 LI Federal #1H
Company:	Mewbourne Oil Co	TVD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Project:	Eddy County, New Mexico	MD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Site:	Sec 7, T17S, R29E	North Reference:	Grid
Well:	Empire 7 LI Federal #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)	
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	
3562.5 MD: Build @ 12°/100 MD										
3,562.5	0.00	0.00	3,562.5	0.0	0.0	0.0	0.00	0.00	0.00	
3,600.0	4.50	89.87	3,600.0	0.0	1.5	1.5	12.00	12.00	0.00	
3,700.0	16.50	89.87	3,698.1	0.0	19.7	19.7	12.00	12.00	0.00	
3,800.0	28.50	89.87	3,790.3	0.1	57.8	57.8	12.00	12.00	0.00	
3,900.0	40.50	89.87	3,872.6	0.3	114.4	114.4	12.00	12.00	0.00	
4,000.0	52.50	89.87	3,941.3	0.4	186.8	186.8	12.00	12.00	0.00	
4,100.0	64.50	89.87	3,993.5	0.6	271.9	271.9	12.00	12.00	0.00	
4,200.0	76.50	89.87	4,026.8	0.8	366.0	366.0	12.00	12.00	0.00	
4,300.0	88.50	89.87	4,039.8	1.0	464.9	464.9	12.00	12.00	0.00	
4310.9 MD: End of Curve w/89.81° Incl. - Azm. 89.87°										
4,310.9	89.81	89.87	4,040.0	1.1	475.9	475.9	12.00	12.00	0.00	
4,400.0	89.81	89.87	4,040.3	1.3	564.9	564.9	0.00	0.00	0.00	
4,500.0	89.81	89.87	4,040.6	1.5	664.9	664.9	0.00	0.00	0.00	
4,600.0	89.81	89.87	4,041.0	1.7	764.9	764.9	0.00	0.00	0.00	
4,700.0	89.81	89.87	4,041.3	1.9	864.9	864.9	0.00	0.00	0.00	



# DDC Well Planning Report



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Company:	Mewbourne Oil Co	TVD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
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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)
4,800.0	89.81	89.87	4,041.6	2.2	964.9	964.9	0.00	0.00	0.00
4,900.0	89.81	89.87	4,042.0	2.4	1,064.9	1,064.9	0.00	0.00	0.00
5,000.0	89.81	89.87	4,042.3	2.6	1,164.9	1,164.9	0.00	0.00	0.00
5,100.0	89.81	89.87	4,042.6	2.8	1,264.9	1,264.9	0.00	0.00	0.00
5,200.0	89.81	89.87	4,043.0	3.1	1,364.9	1,364.9	0.00	0.00	0.00
5,300.0	89.81	89.87	4,043.3	3.3	1,464.9	1,464.9	0.00	0.00	0.00
5,400.0	89.81	89.87	4,043.7	3.5	1,564.9	1,564.9	0.00	0.00	0.00
5,500.0	89.81	89.87	4,044.0	3.7	1,664.9	1,664.9	0.00	0.00	0.00
5,600.0	89.81	89.87	4,044.3	4.0	1,764.9	1,764.9	0.00	0.00	0.00
5,700.0	89.81	89.87	4,044.7	4.2	1,864.9	1,864.9	0.00	0.00	0.00
5,800.0	89.81	89.87	4,045.0	4.4	1,964.9	1,964.9	0.00	0.00	0.00
5,900.0	89.81	89.87	4,045.3	4.6	2,064.9	2,064.9	0.00	0.00	0.00
6,000.0	89.81	89.87	4,045.7	4.9	2,164.9	2,164.9	0.00	0.00	0.00
6,100.0	89.81	89.87	4,046.0	5.1	2,264.9	2,264.9	0.00	0.00	0.00
6,200.0	89.81	89.87	4,046.3	5.3	2,364.9	2,364.9	0.00	0.00	0.00
6,300.0	89.81	89.87	4,046.7	5.5	2,464.9	2,464.9	0.00	0.00	0.00
6,400.0	89.81	89.87	4,047.0	5.8	2,564.9	2,564.9	0.00	0.00	0.00
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6,600.0	89.81	89.87	4,047.7	6.2	2,764.9	2,764.9	0.00	0.00	0.00
6,700.0	89.81	89.87	4,048.0	6.4	2,864.9	2,864.9	0.00	0.00	0.00
6,800.0	89.81	89.87	4,048.3	6.7	2,964.9	2,964.9	0.00	0.00	0.00
6,900.0	89.81	89.87	4,048.7	6.9	3,064.9	3,064.9	0.00	0.00	0.00
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7,100.0	89.81	89.87	4,049.3	7.3	3,264.9	3,264.9	0.00	0.00	0.00
7,200.0	89.81	89.87	4,049.7	7.6	3,364.9	3,364.9	0.00	0.00	0.00
7,300.0	89.81	89.87	4,050.0	7.8	3,464.9	3,464.9	0.00	0.00	0.00
7,400.0	89.81	89.87	4,050.4	8.0	3,564.9	3,564.9	0.00	0.00	0.00
7,500.0	89.81	89.87	4,050.7	8.2	3,664.9	3,664.9	0.00	0.00	0.00
7,600.0	89.81	89.87	4,051.0	8.5	3,764.9	3,764.9	0.00	0.00	0.00
7,700.0	89.81	89.87	4,051.4	8.7	3,864.9	3,864.9	0.00	0.00	0.00
7,800.0	89.81	89.87	4,051.7	8.9	3,964.9	3,964.9	0.00	0.00	0.00
7,900.0	89.81	89.87	4,052.0	9.1	4,064.9	4,064.9	0.00	0.00	0.00
8,000.0	89.81	89.87	4,052.4	9.4	4,164.9	4,164.9	0.00	0.00	0.00
8,100.0	89.81	89.87	4,052.7	9.6	4,264.9	4,264.9	0.00	0.00	0.00
TD at 8189.8 MD / 4053 TVD - Empire 7 LI Fed #1H				9.8	4,354.7	4,354.7	0.00	0.00	0.00
8,189.8	89.81	89.87	4,053.0						

Design Targets									
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Empire 7 LI Fed #1H	0.00	0.00	4,053.0	9.8	4,354.7	672,242.64	569,763.89	32° 50' 52.345 N	104° 6' 22.211 W
- plan hits target center									
- Point									

DDC  
Well Planning Report

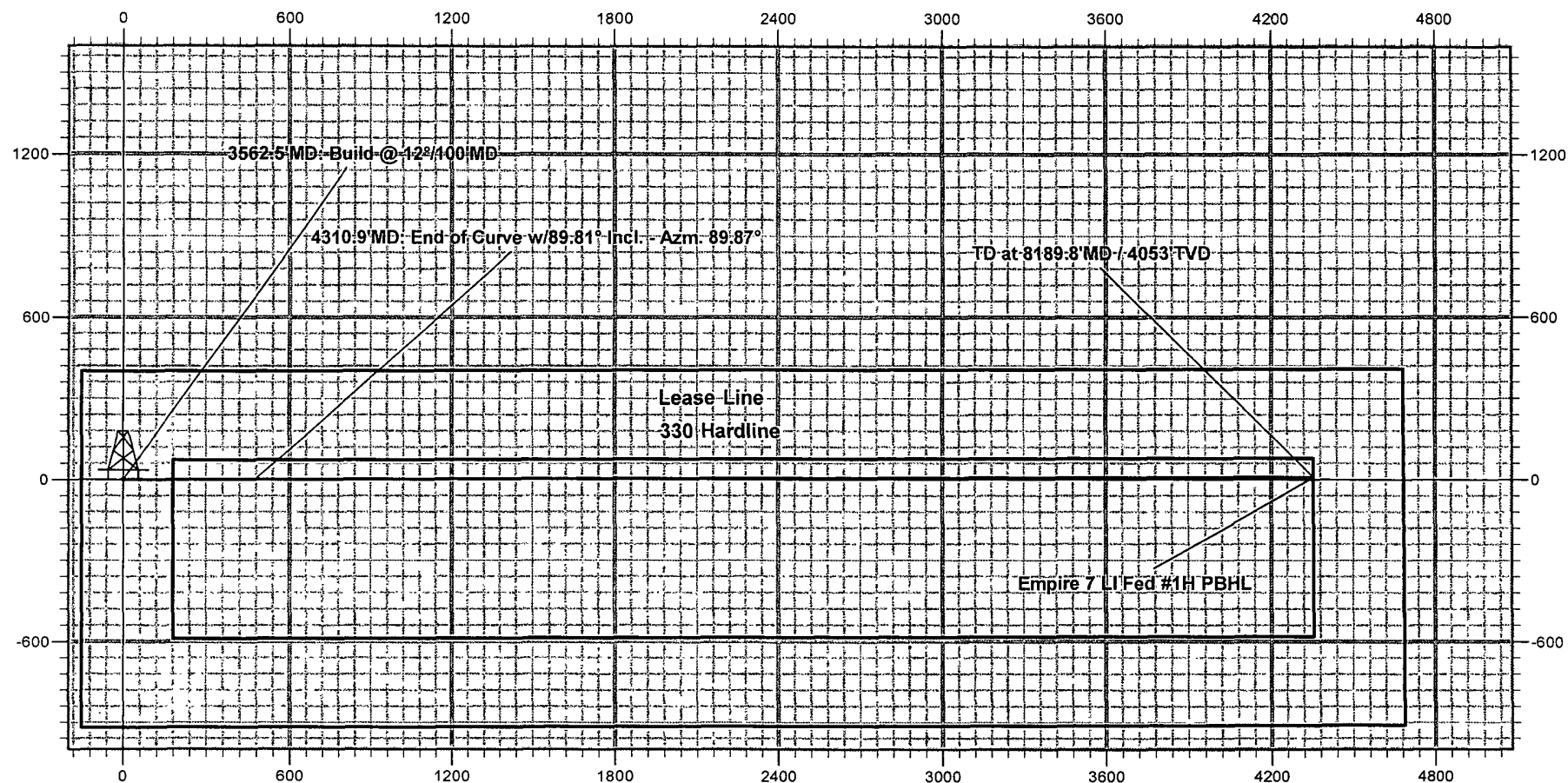


Database:	EDM 5000.1 Single User.Db	Local Co-ordinate Reference:	Well: Empire 7, LI Federal #1H.
Company:	Mewbourne Oil Co	TVD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Project:	Eddy County, New Mexico	MD Reference:	GL 3691 + 19' KB @ 3710.0usft (Patterson UTI 101)
Site:	Sec 7, T17S, R29E	North Reference:	Grid
Well:	Empire 7, LI Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan/Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
3,562.5	3,562.5	0.0	0.0	3562.5'MD: Build @ 12°/100'MD
4,310.9	4,040.0	1.1	475.9	4310.9'MD: End of Curve w/89.81° Incl. - Azm. 89.87°
8,189.8	4,053.0	9.8	4,354.7	TD at 8189.8'MD / 4053'TVD

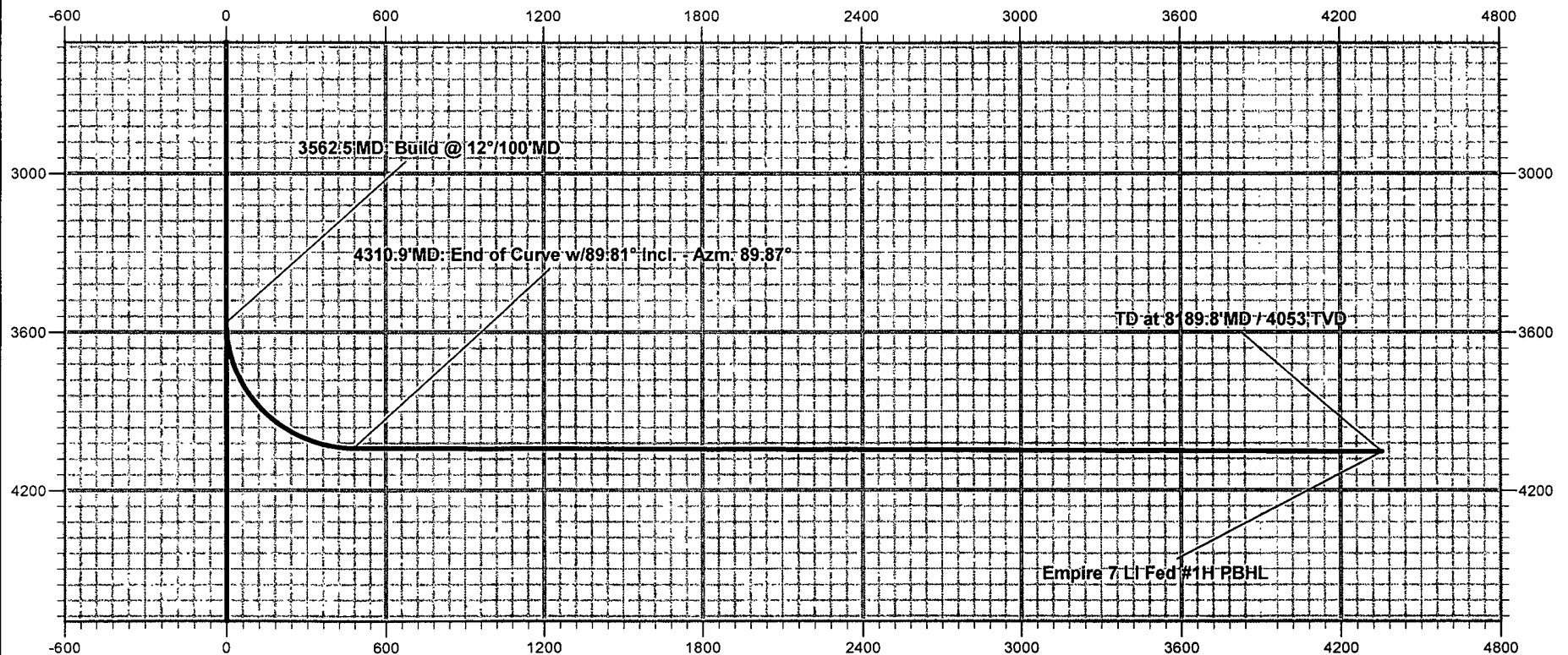
# Mewbourne Oil Co

Empire 7 LI Federal #1H  
Sec 7, T17S, R29E  
Eddy County, New Mexico  
Design #1  
Q12058



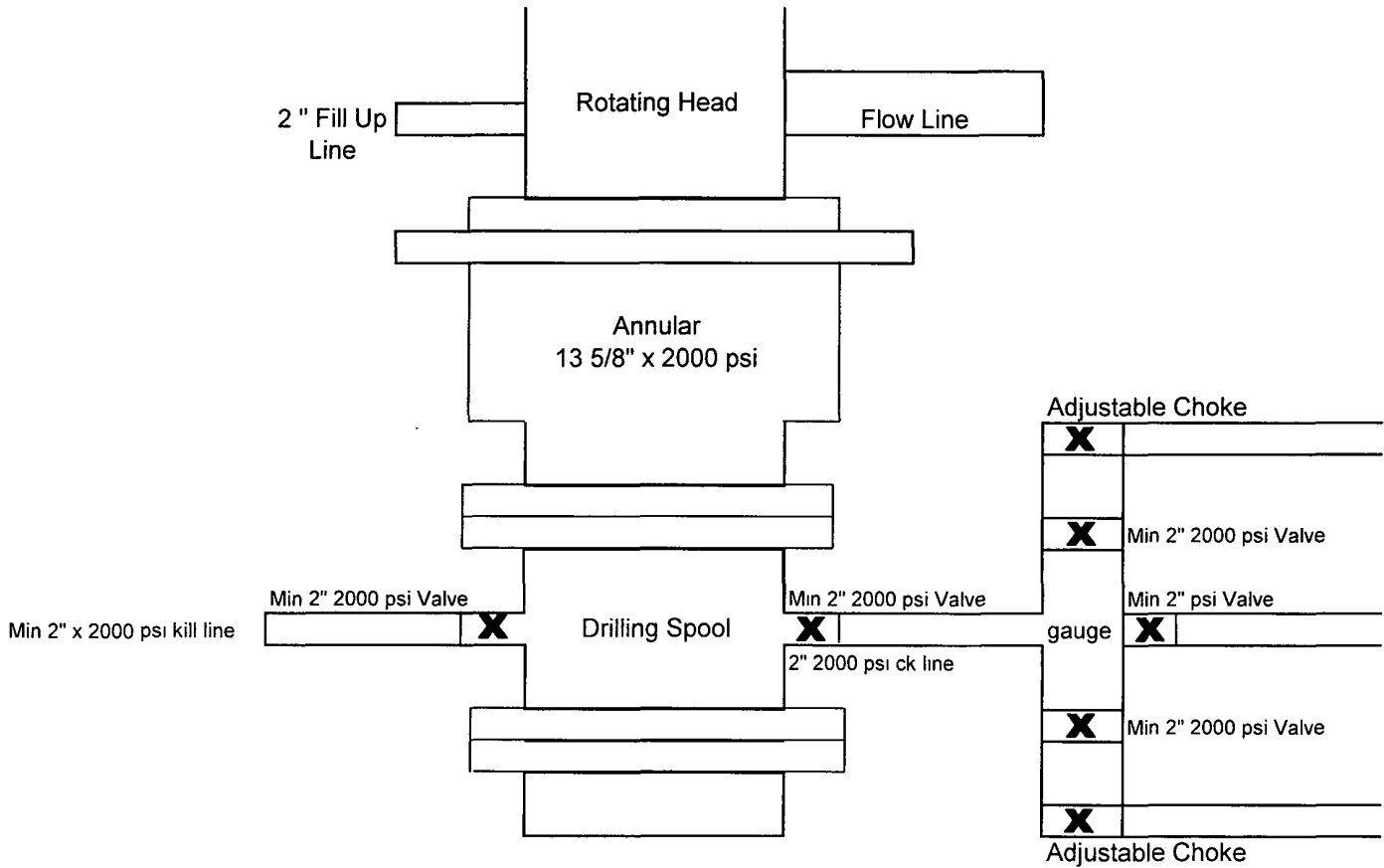
# Mewbourne Oil Co

Empire 7 LI Federal #1H  
Sec 7, T17S, R29E  
Eddy County, New Mexico  
Design #1  
Q12058



Vertical Section at 89.87° (600 usft/in)

**Mewbourne Oil Company**  
 BOP Schematic for  
 12 1/4" Hole

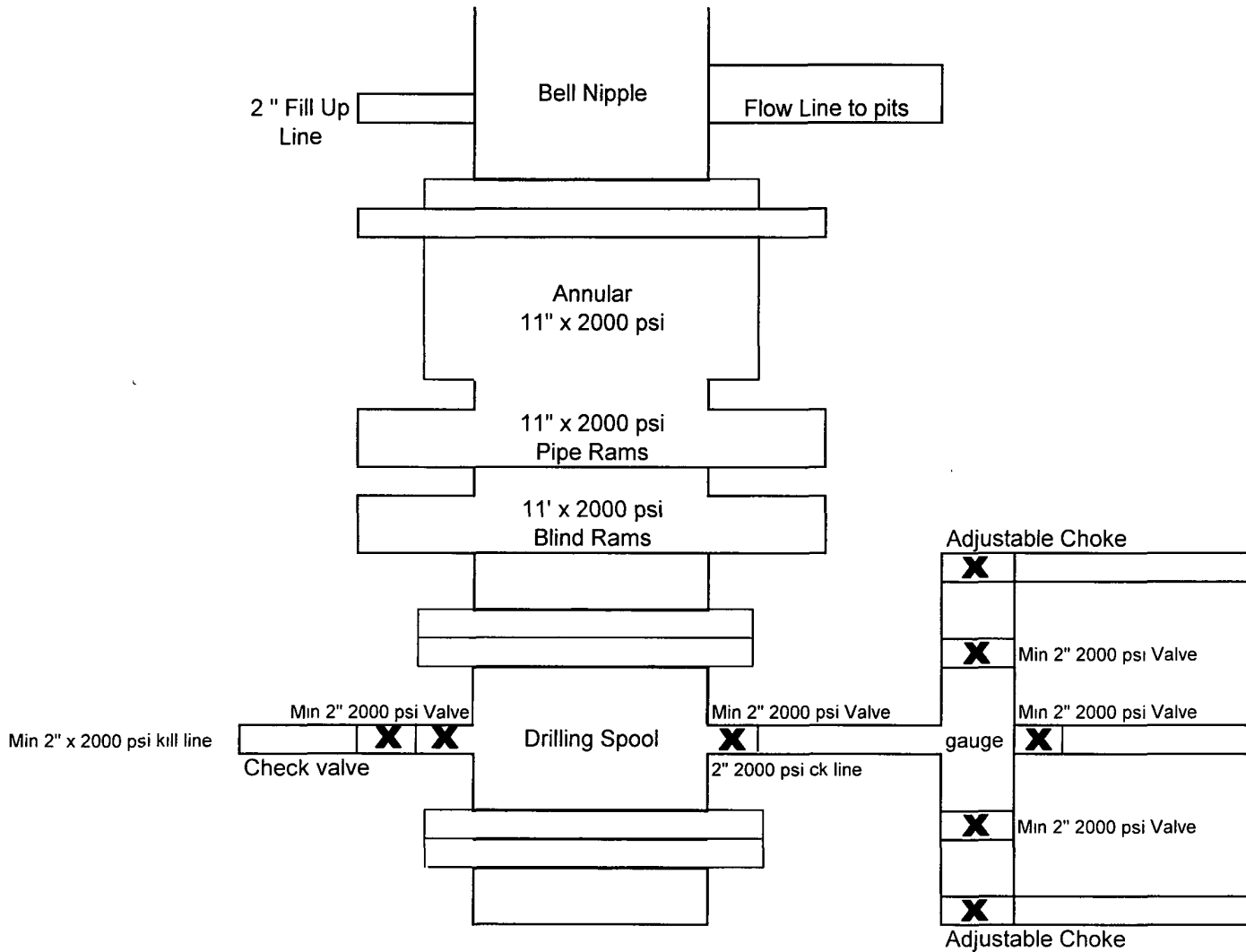


**Exhibit #2**

Empire "7" LI Fed #1H  
 2240' FSL & 150' FWL  
 Sec 7-T17S-R29E  
 Eddy, County  
 New Mexico

# Mewbourne Oil Company

## BOP Schematic for 8 3/4" & 6 1/8" Hole

**Exhibit #2**

Empire "7" LI Fed #1H  
2240' FSL & 150' FWL  
Sec 7-T17S-R29E  
Eddy, County  
New Mexico

**Notes Regarding Blowout Preventer**

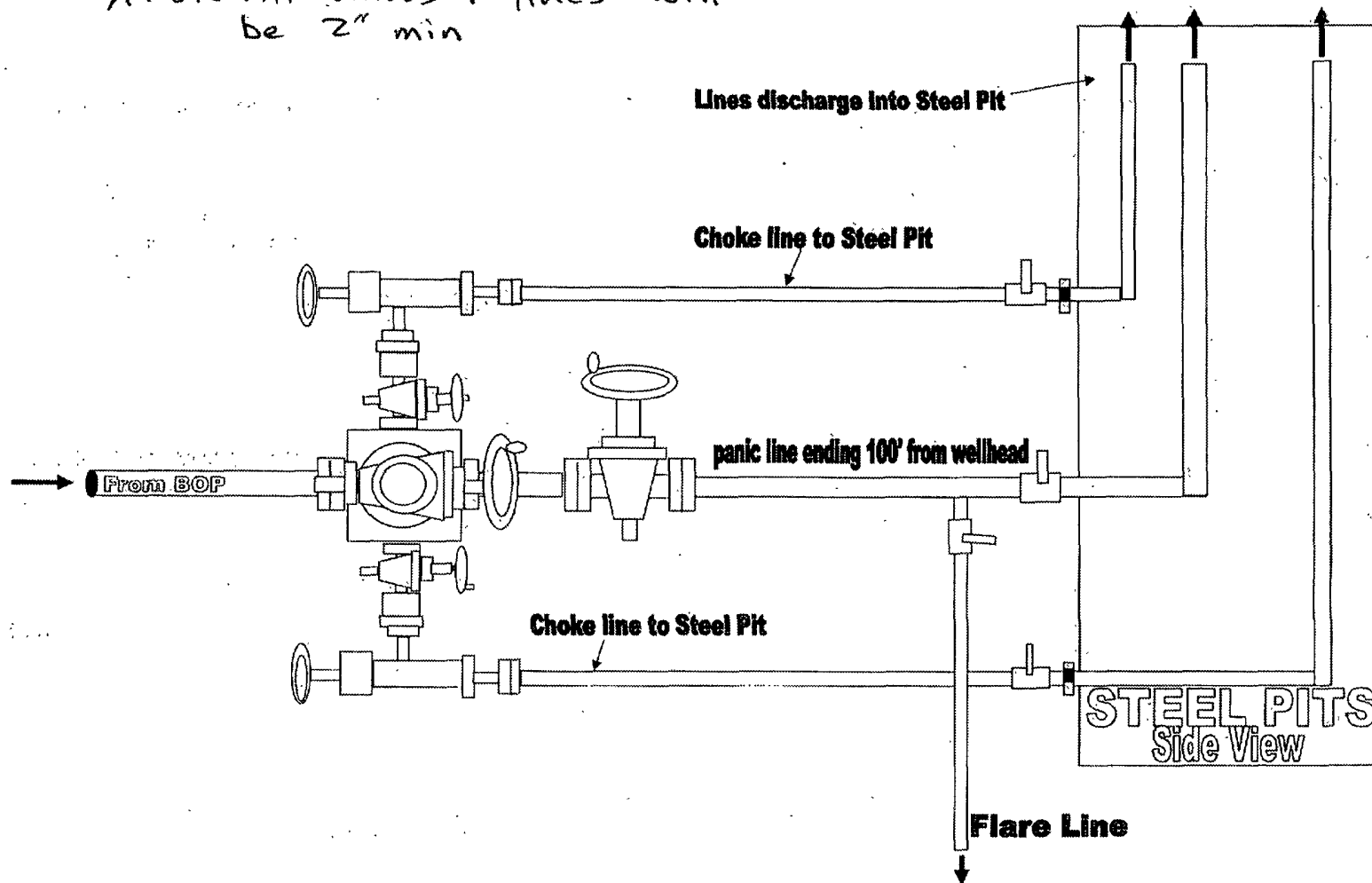
**Mewbourne Oil Company**

Empire "7" LI Fed #1H  
2240' FSL & 150' FWL (SHL)  
Sec 7-T17S-R29E  
Eddy 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 2000 psi working pressure on 13 3/8" casing and 2000 psi working pressure on 9 5/8" & 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 2000 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.

★ Note: All valves + lines will  
be 2" min

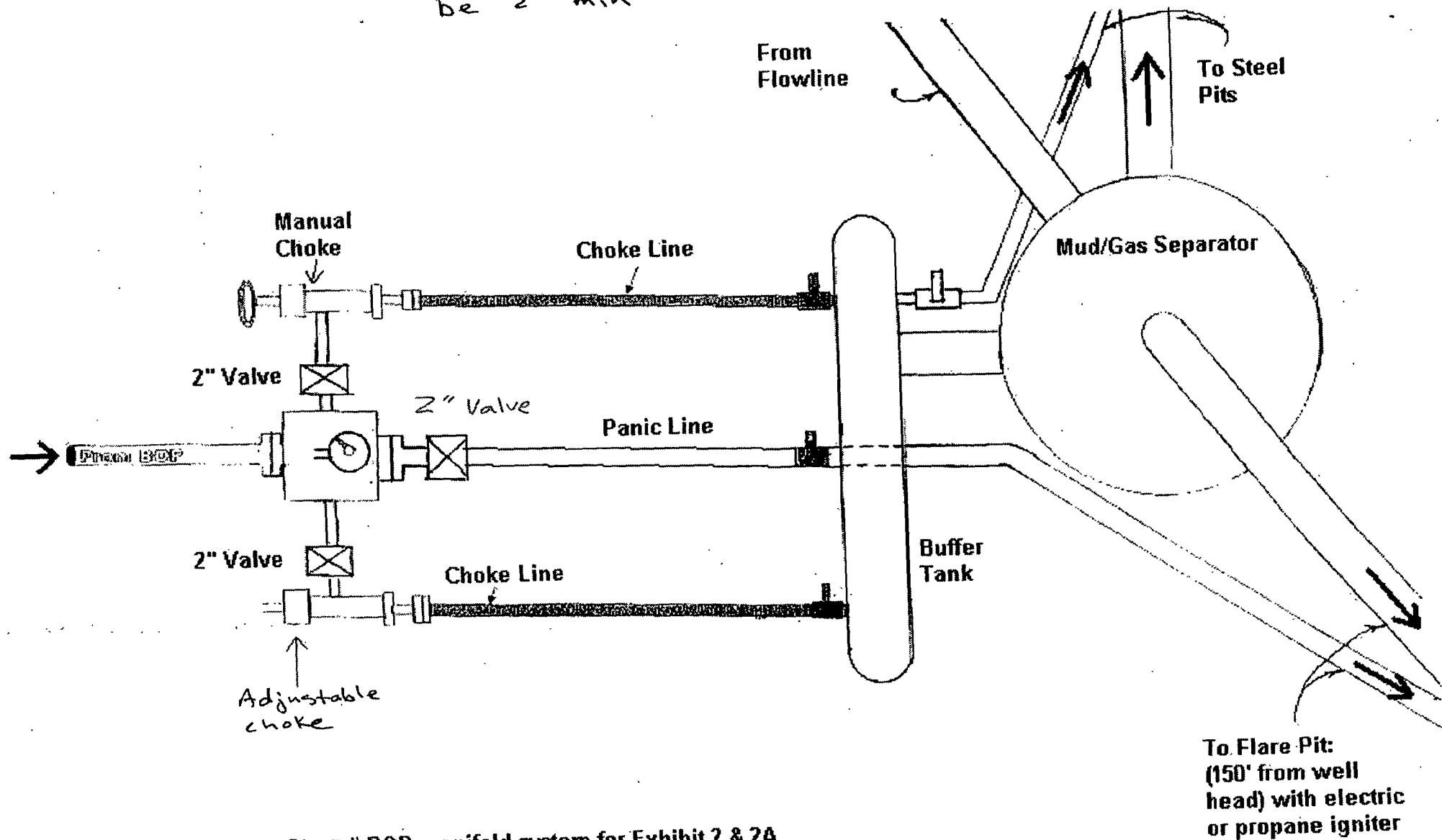


Z000# BOP manifold system for Exhibit 2 & 2A

Empire "7" LI Fed #1H



\*Note: All valves + lines will  
be 2" min

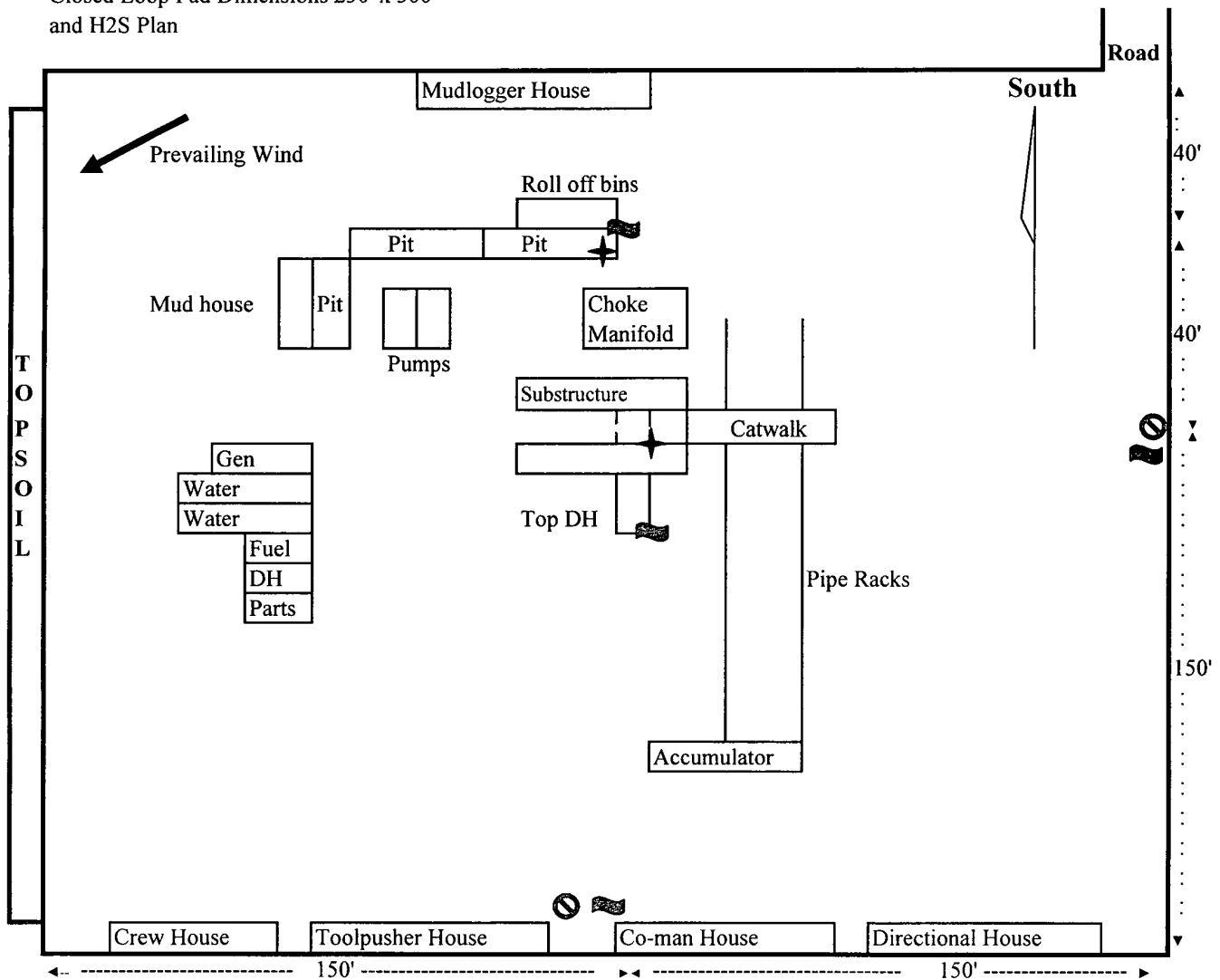


2000# BOP manifold system for Exhibit 2 & 2A  
(only if Mud/Gas Separator is needed)

Empire "7" LI Fed #1H

# Exhibit 5

Closed Loop Pad Dimensions 230' x 300'  
and H2S Plan



Legend	
	Wellbore Location
	Briefing Area w/ SCBA
	H2S Sensors
	Windssocks

**Mewbourne Oil Company**  
 Empire "7" LI Fed #1H  
 2240' FSL & 150' FWL  
 Sec 7-T17S-R29E  
 Eddy County, NM

## Hydrogen Sulfide Drilling Operations Plan

**Mewbourne Oil Company**

Empire "7" LI Fed #1H

2240' FSL & 150' FWL

Sec 7-T17S-R29E

Eddy County, New Mexico

### **1. General Requirements**

MOC will have on location and working all H<sub>2</sub>S safety equipment before the San Andres 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 known 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 H<sub>2</sub>S 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 H<sub>2</sub>S are detected the well will be shut in and a rotating head, mud/gas separator, and flare line with igniter will be installed.

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.

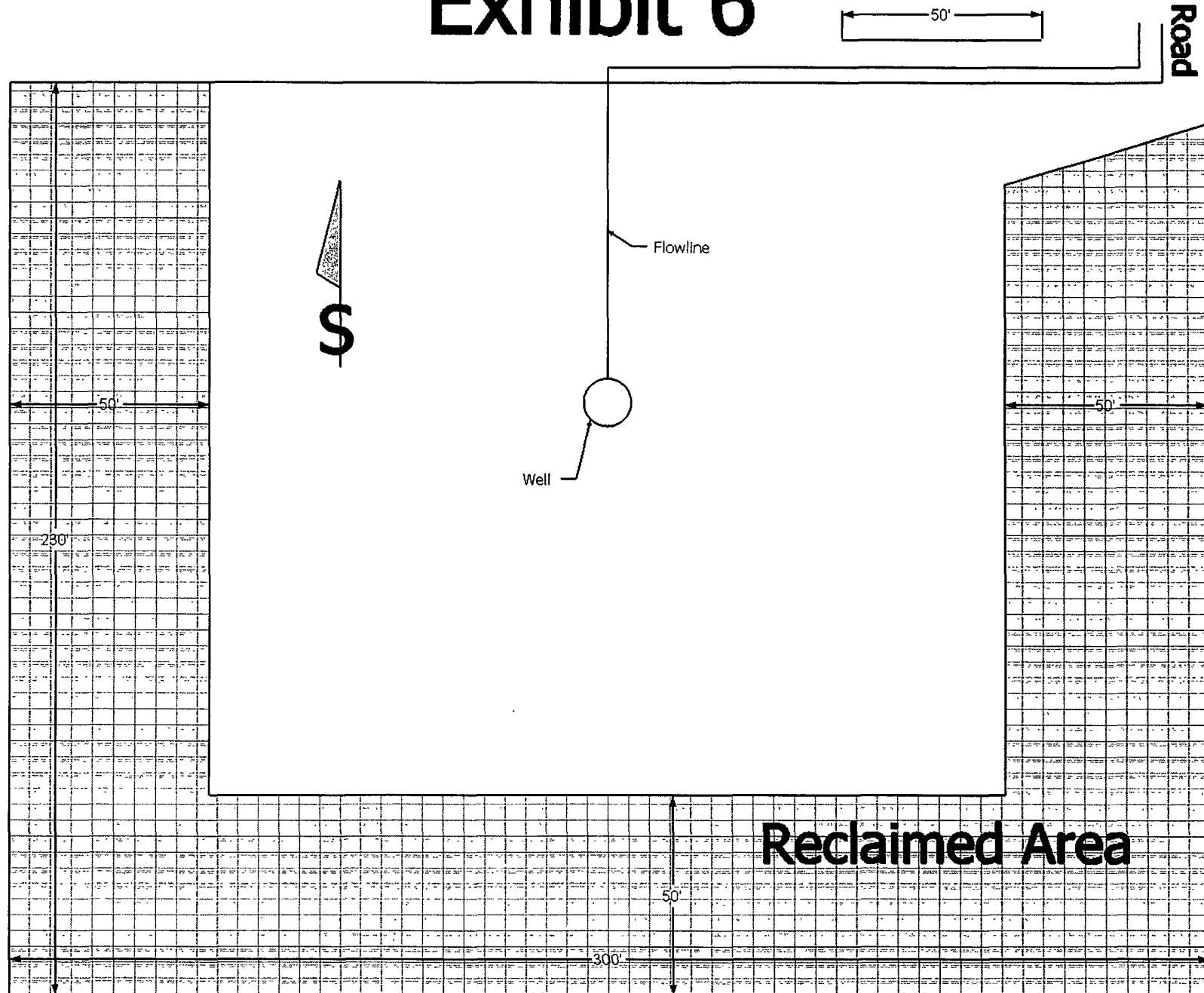
8. **Emergency Phone Numbers**

<b>Eddy County Sheriff's Office</b>	<b>911 or 575-887-7551</b>
<b>Ambulance Service</b>	<b>911 or 575-885-2111</b>
<b>Carlsbad Fire Dept</b>	<b>911 or 575-885-2111</b>
<b>Closest Medical Facility - Columbia Medical Center of Carlsbad</b>	<b>575-492-5000</b>

<b>Mewbourne Oil Company</b>	<b>Hobbs District Office</b>	<b>575-393-5905</b>
	<b>Fax</b>	<b>575-397-6252</b>
	<b>2<sup>nd</sup> Fax</b>	<b>575-393-7259</b>

<b>District Manager</b>	<b>Micky Young</b>	<b>575-390-0999</b>
<b>Drilling Superintendent</b>	<b>Frosty Lathan</b>	<b>575-390-4103</b>
<b>Drilling Foreman</b>	<b>Johnny Burnett</b>	<b>575-631-6322</b>
<b>Engineer</b>	<b>Brett Bednarz</b>	<b>575-390-6838</b>

# Exhibit 6



Empire "7" LI Fed #1H

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NM101967
WELL NAME & NO.:	1H EMPIRE 7 LI FEDERAL
SURFACE HOLE FOOTAGE:	2240' FSL & 150' FWL
BOTTOM HOLE FOOTAGE:	2240' FSL & 330' FEL
LOCATION:	Section 7, T.17 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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Fence Requirement
  - Cattleguard Requirement
  - Road Construction Requirement
  - Pipeline Requirement
- ☒ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - H2S Requirements—Onshore Order #6
  - Logging Requirements
  - Waste Material and Fluids
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**