

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

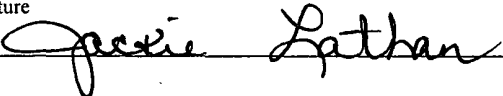
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM-103878
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Mewbourne Oil Company - 14744		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 5270 Hobbs, NM 88240	3b. Phone No (include area code) 575-393-5905 (65010)	8. Lease Name and Well No Thompson 8 Federal #2H
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 870' FNL & 310' FEL Unit A At proposed prod zone 375' FNL & 330' FWL Unit D		9. API Well No 30-015-39295
14. Distance in miles and direction from nearest town or post office* 13 miles NE of Carlsbad, NM		10. Field and Pool, or Exploratory Winchester Bone Spring
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 160'	16. No. of Acres in lease 320	11. Sec, T, R, M, or Blk and Survey or Area Sec 8-T20S-R29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 354'	19. Proposed Depth 7948' TVD 12382' MD	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3285' GL	22. Approximate date work will start* ASAP	13. State NM
23. Estimated duration 45		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall 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 shall be filed with the appropriate Forest Service Office). | 6 Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Jackie Lathan	Date 03/15/11
Title Hobbs Regulatory		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date JUL 22 2011
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.

*(Instructions on reverse)

Capitan Controlled Water Basin



SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Drilling Program
Mewbourne Oil Company
 Thompson "8" Federal Com #2H
 870' FNL & 310' FEL (SHL)
 Sec 8-T20S-R29E
 Eddy County, New Mexico

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

Rustler	275'
Top Salt	550'
Base Salt	700'
*Yates	1065'
Capitan Top	1300'
Capitan Base	2800'
*Delaware	3400'
*Boné Springs	5700'

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

Water	Fresh water is anticipated at 65' 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:

3000

A 2M diverter will be installed after running 20" casing. A 3000# WP Annular will be installed after running 13 3/8" casing. A 3000# WP Double Ram BOP and ~~2000#~~ WP Annular will be installed after running 9 5/8" & 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 5/8" 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.** MOC proposes to drill a vertical wellbore to 7375' & kick off to horizontal @ 7943' TVD. The well will be drilled to 12382' MD (7888' 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>
26"	20"	94#	K55	0'-300' - 320'	BT&C
17 1/2"	13 3/8" (new)	48#	J55	0'-1000'	ST&C
17 1/2"	13 3/8" (new)	54.5#	J55	1000'-1165'	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-3300'	LT&C
12 1/4"	9 5/8" (new)	40#	J55	3300'-3400'	LT&C
8 3/4"	7" (new)	26#	P110	0'-7375' MD	LT&C
8 3/4"	7" (new)	26#	P110	7375'-8385' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	8185'-12382' 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:

- i. Surface Casing: 300 sx Class C light cement (35:65:4) with salt and LCM additives. Yield at 2.0 cuft/sk. 200 sx Class C cement with 2% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface with 100% excess.
- ii. 1st Intermediate Casing: 475sacks Class C light cement (35:65:4) with 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/50% excess.
- iii. 2nd Intermediate Casing: 525 sacks Class C light cement (35:65:4) with 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.
- iii. Production Casing: 250 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 3000' w/25% excess.
- iv. Production Liner: This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

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

6. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-300'	FW spud mud	8.6-9.0	32-34	NA
300'-1165'	Brine water	10.0-10.2	28-30	NA
1165'-7375'	FW	8.3-8.6	28-30	NA
7375'-TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program:

Samples: 10' samples from surface casing to TD
Logging: GR, neutron, & Gyro from KOP -100' (7275') to surface. GR from 7275' 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

9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 40 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 8-20S-29E

Thompson 8 Federal Com #2H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

09 March, 2011



DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Thompson 8 Federal Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3303.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3303.0usft (Patterson UTI #45/47)
Site:	Sec 8-20S-29E	North Reference:	Grid
Well:	Thompson 8 Federal Com #2H	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 8-20S-29E		
Site Position:	Northing:	579,433.40 usft	Latitude: 32° 35' 33.830 N
From: Map	Easting:	575,217.33 usft	Longitude: 104° 5' 20.792 W
Position Uncertainty:	0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.13 °

Well	Thompson 8 Federal Com #2H		
Well Position	+N/-S	0.0 usft	Northing: 579,433.40 usft
	+E/-W	0.0 usft	Easting: 575,217.33 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 3,285.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	3/9/2011	7.88
			Dip Angle
			60.45
			Field Strength
			48,809

Design	Design #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			276.09

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,375.1	0.00	0.00	7,375.1	0.0	0.0	0.00	0.00	0.00	0.00	
8,283.5	90.84	276.09	7,948.0	61.7	-578.1	10.00	10.00	-9.24	276.09	
12,382.4	90.84	276.09	7,888.0	496.5	-4,653.4	0.00	0.00	0.00	0.00	PBHL Thompson 8

DDC Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec: 8-20S-29E
Well: Thompson 8 Federal Com #2H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Thompson 8 Federal Com #2H
TVD Reference: WELL @ 3303.0usft (Patterson UTI #45/47)
MD Reference: WELL @ 3303.0usft (Patterson UTI #45/47)
North Reference: Grid
Survey Calculation Method: 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

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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
Build 10°/100' @ 7375' MD									
7,375.1	0.00	0.00	7,375.1	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	2.49	276.09	7,400.0	0.1	-0.5	0.5	10.00	10.00	0.00
7,500.0	12.49	276.09	7,499.0	1.4	-13.5	13.6	10.00	10.00	0.00
7,600.0	22.49	276.09	7,594.3	4.6	-43.3	43.6	10.00	10.00	0.00
7,700.0	32.49	276.09	7,682.9	9.5	-89.2	89.7	10.00	10.00	0.00
7,800.0	42.49	276.09	7,762.1	16.0	-149.6	150.5	10.00	10.00	0.00
7,900.0	52.49	276.09	7,829.6	23.8	-222.8	224.1	10.00	10.00	0.00
8,000.0	62.49	276.09	7,883.3	32.7	-306.6	308.3	10.00	10.00	0.00
8,100.0	72.49	276.09	7,921.5	42.5	-398.3	400.6	10.00	10.00	0.00
8,200.0	82.49	276.09	7,943.1	52.8	-495.3	498.1	10.00	10.00	0.00
EOB @ 8284' MD / 90.84° Inc / 276.09° Azm / 7948' TVD									
8,283.5	90.84	276.09	7,948.0	61.7	-578.1	581.3	10.00	10.00	0.00
8,300.0	90.84	276.09	7,947.8	63.4	-594.5	597.9	0.00	0.00	0.00
8,400.0	90.84	276.09	7,946.3	74.0	-693.9	697.8	0.00	0.00	0.00
8,500.0	90.84	276.09	7,944.8	84.6	-793.3	797.8	0.00	0.00	0.00
8,600.0	90.84	276.09	7,943.4	95.3	-892.8	897.8	0.00	0.00	0.00
8,700.0	90.84	276.09	7,941.9	105.9	-992.2	997.8	0.00	0.00	0.00
8,800.0	90.84	276.09	7,940.4	116.5	-1,091.6	1,097.8	0.00	0.00	0.00
8,900.0	90.84	276.09	7,939.0	127.1	-1,191.0	1,197.8	0.00	0.00	0.00
9,000.0	90.84	276.09	7,937.5	137.7	-1,290.5	1,297.8	0.00	0.00	0.00
9,100.0	90.84	276.09	7,936.0	148.3	-1,389.9	1,397.8	0.00	0.00	0.00
9,200.0	90.84	276.09	7,934.6	158.9	-1,489.3	1,497.8	0.00	0.00	0.00
9,300.0	90.84	276.09	7,933.1	169.5	-1,588.7	1,597.7	0.00	0.00	0.00
9,400.0	90.84	276.09	7,931.7	180.1	-1,688.2	1,697.7	0.00	0.00	0.00
9,500.0	90.84	276.09	7,930.2	190.7	-1,787.6	1,797.7	0.00	0.00	0.00
9,600.0	90.84	276.09	7,928.7	201.3	-1,887.0	1,897.7	0.00	0.00	0.00
9,700.0	90.84	276.09	7,927.3	211.9	-1,986.4	1,997.7	0.00	0.00	0.00
9,800.0	90.84	276.09	7,925.8	222.6	-2,085.9	2,097.7	0.00	0.00	0.00
9,900.0	90.84	276.09	7,924.3	233.2	-2,185.3	2,197.7	0.00	0.00	0.00
10,000.0	90.84	276.09	7,922.9	243.8	-2,284.7	2,297.7	0.00	0.00	0.00
10,100.0	90.84	276.09	7,921.4	254.4	-2,384.1	2,397.7	0.00	0.00	0.00
10,200.0	90.84	276.09	7,919.9	265.0	-2,483.6	2,497.7	0.00	0.00	0.00

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Thompson 8 Federal Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3303.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3303.0usft (Patterson UTI #45/47)
Site:	Sec 8-20S-29E	North Reference:	Grid
Well:	Thompson 8 Federal Com #2H	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)	
10,300.0	90.84	276.09	7,918.5	275.6	-2,583.0	2,597.6	0.00	0.00	0.00	
10,400.0	90.84	276.09	7,917.0	286.2	-2,682.4	2,697.6	0.00	0.00	0.00	
10,500.0	90.84	276.09	7,915.6	296.8	-2,781.8	2,797.6	0.00	0.00	0.00	
10,600.0	90.84	276.09	7,914.1	307.4	-2,881.3	2,897.6	0.00	0.00	0.00	
10,700.0	90.84	276.09	7,912.6	318.0	-2,980.7	2,997.6	0.00	0.00	0.00	
10,800.0	90.84	276.09	7,911.2	328.6	-3,080.1	3,097.6	0.00	0.00	0.00	
10,900.0	90.84	276.09	7,909.7	339.2	-3,179.5	3,197.6	0.00	0.00	0.00	
11,000.0	90.84	276.09	7,908.2	349.8	-3,279.0	3,297.6	0.00	0.00	0.00	
11,100.0	90.84	276.09	7,906.8	360.5	-3,378.4	3,397.6	0.00	0.00	0.00	
11,200.0	90.84	276.09	7,905.3	371.1	-3,477.8	3,497.5	0.00	0.00	0.00	
11,300.0	90.84	276.09	7,903.8	381.7	-3,577.2	3,597.5	0.00	0.00	0.00	
11,400.0	90.84	276.09	7,902.4	392.3	-3,676.7	3,697.5	0.00	0.00	0.00	
11,500.0	90.84	276.09	7,900.9	402.9	-3,776.1	3,797.5	0.00	0.00	0.00	
11,600.0	90.84	276.09	7,899.5	413.5	-3,875.5	3,897.5	0.00	0.00	0.00	
11,700.0	90.84	276.09	7,898.0	424.1	-3,974.9	3,997.5	0.00	0.00	0.00	
11,800.0	90.84	276.09	7,896.5	434.7	-4,074.4	4,097.5	0.00	0.00	0.00	
11,900.0	90.84	276.09	7,895.1	445.3	-4,173.8	4,197.5	0.00	0.00	0.00	
12,000.0	90.84	276.09	7,893.6	455.9	-4,273.2	4,297.5	0.00	0.00	0.00	
12,100.0	90.84	276.09	7,892.1	466.5	-4,372.6	4,397.4	0.00	0.00	0.00	
12,200.0	90.84	276.09	7,890.7	477.1	-4,472.1	4,497.4	0.00	0.00	0.00	
12,300.0	90.84	276.09	7,889.2	487.8	-4,571.5	4,597.4	0.00	0.00	0.00	
TD @ 12382' MD / 7888' TVD										
12,382.4	90.84	276.09	7,888.0	496.5	-4,653.4	4,679.8	0.00	0.00	0.00	

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Thompson 8 Fe		0.00	0.00	7,888.0	496.5	-4,653.4	579,929.90	570,563.90	32° 35' 38.846 N	104° 6' 15.172 W
- plan hits target center										
- Point										

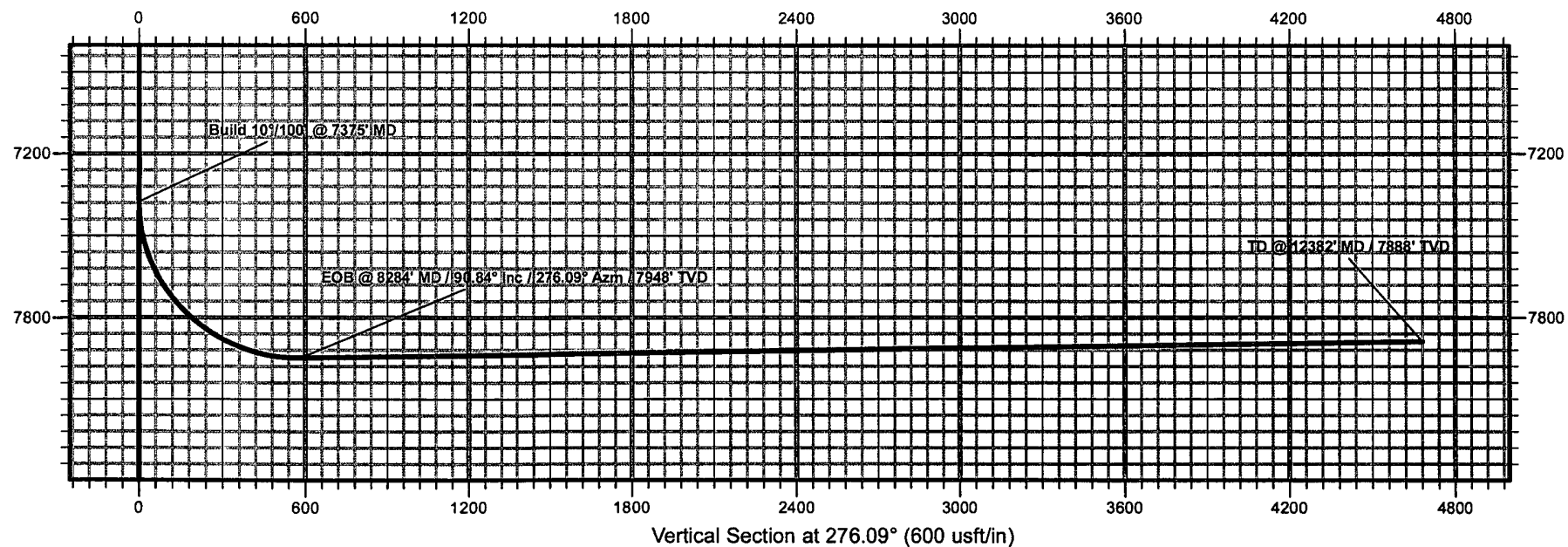
Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,375.1	7,375.1	0.0	0.0	Build 10°/100' @ 7375' MD	
8,283.5	7,948.0	61.7	-578.1	EOB @ 8284' MD / 90.84° Inc / 276.09° Azm / 7948' TVD	
12,382.4	7,888.0	496.5	-4,653.4	TD @ 12382' MD / 7888' TVD	

Mewbourne Oil Company

Eddy County, New Mexico

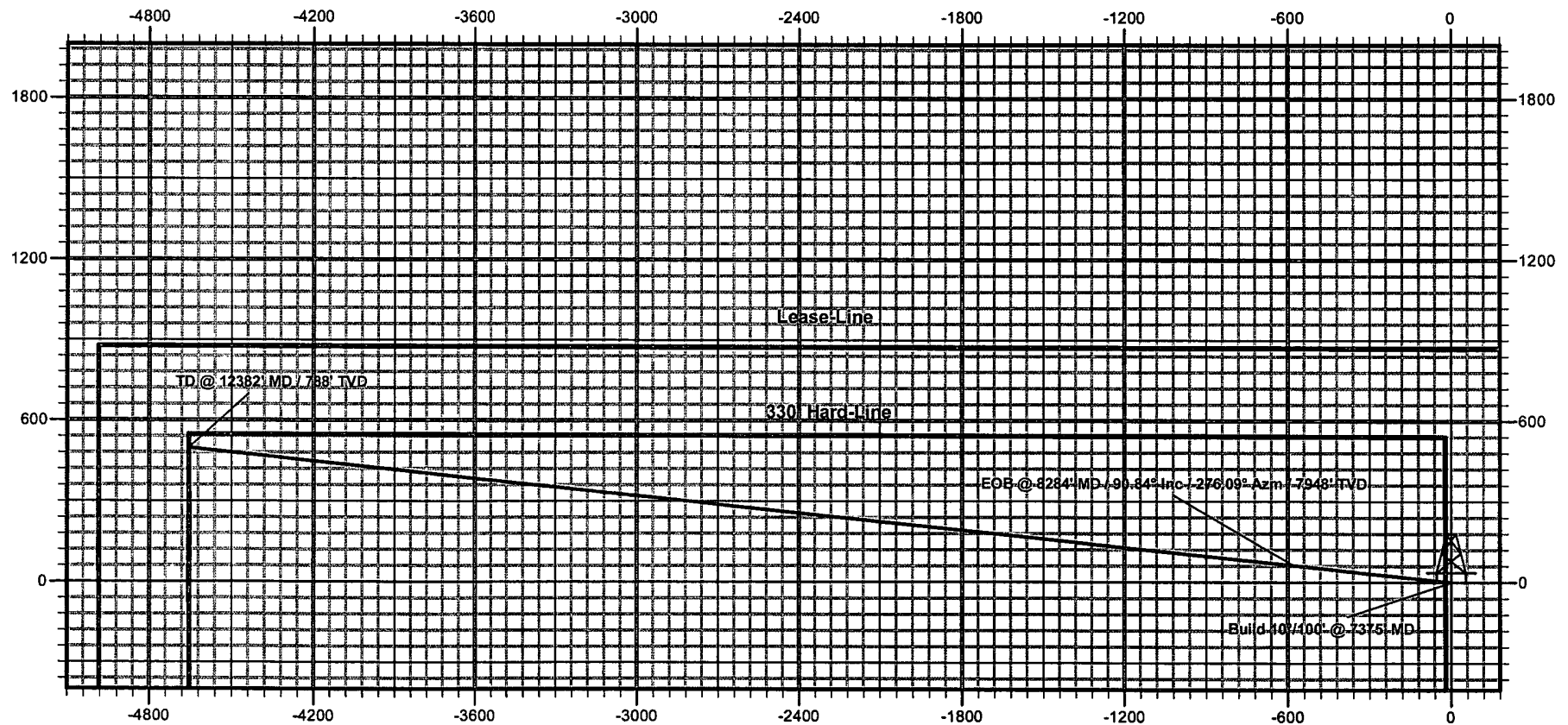
Thompson 8 Federal Com #2H

Q110188

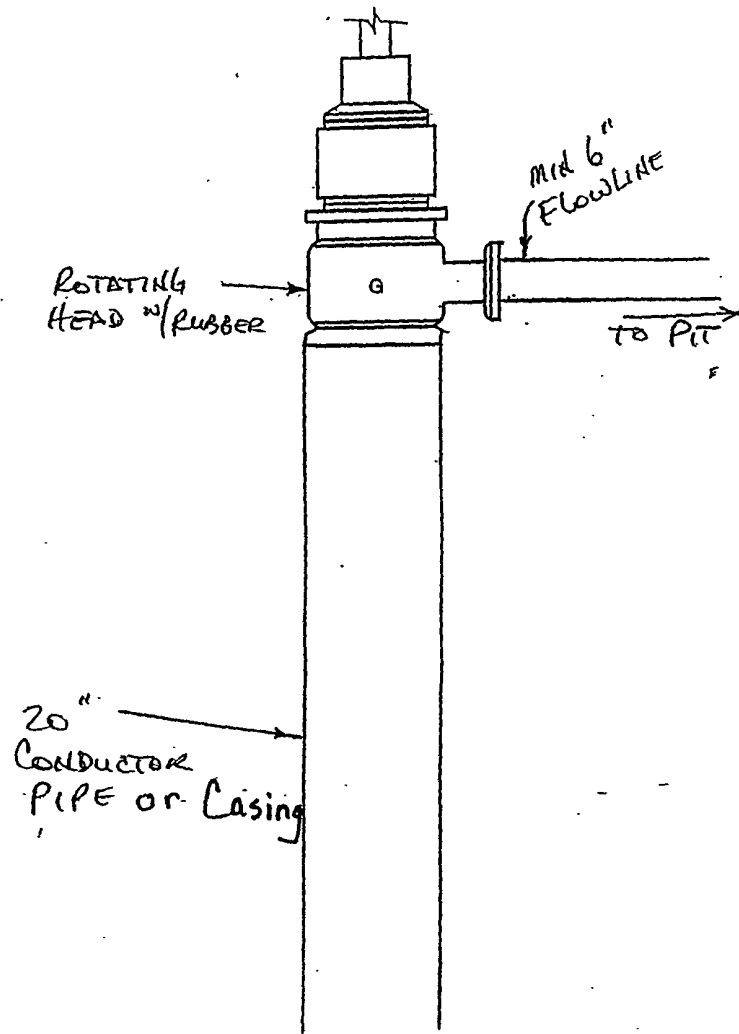


Mewbourne Oil Company

Eddy County, New Mexico
Thompson 8 Federal Com #2H
Q110188



20" DIVERTER SYSTEM



Mewbourne Oil Company
BOP Schematic for
6 1/8" & 8 3/4" Holes

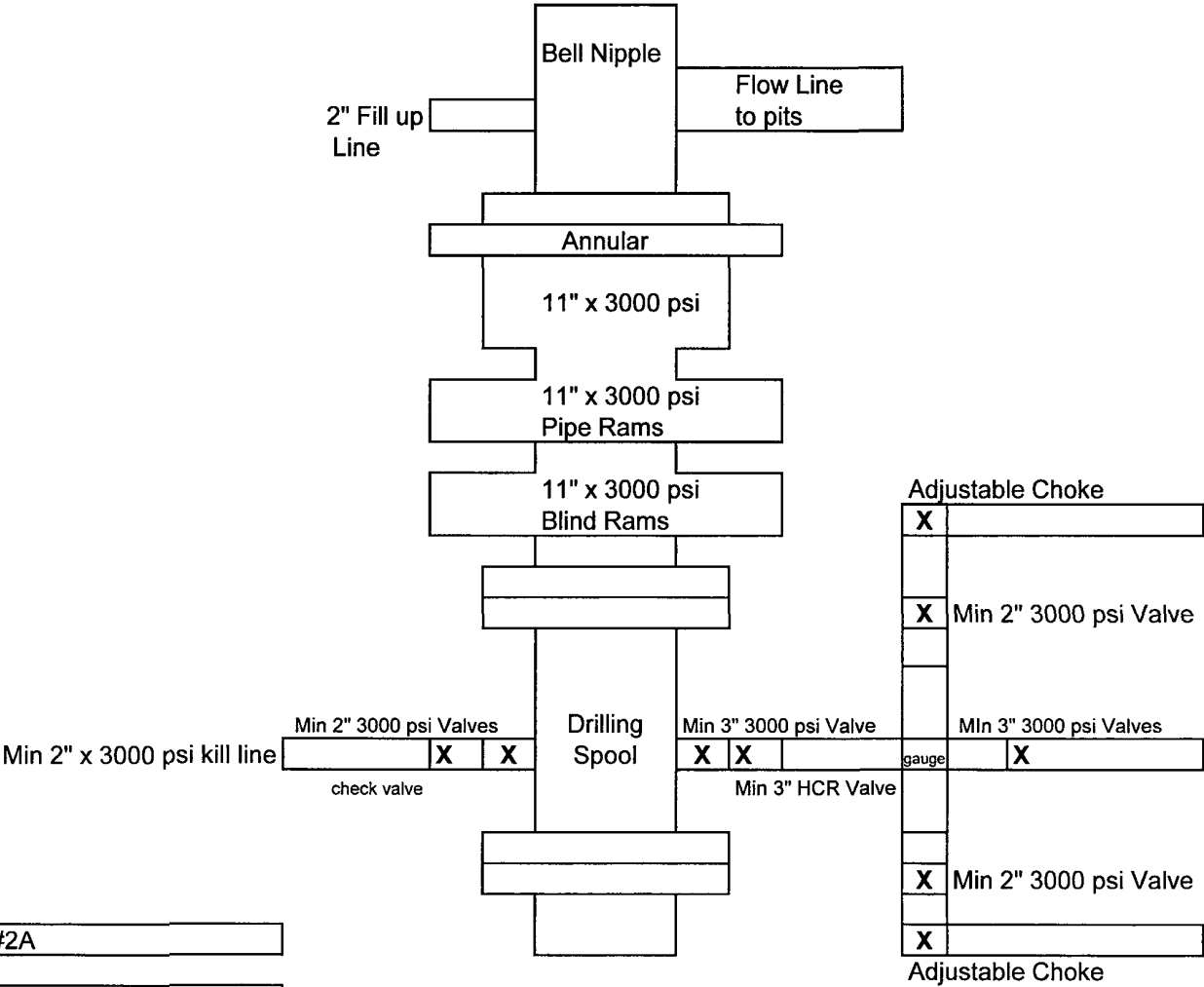


Exhibit #2A

Thompson 8 Fed Com #2H
870' FNL & 310' FEL
Sec 8-T20S-R29E
Eddy, County
New Mexico

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

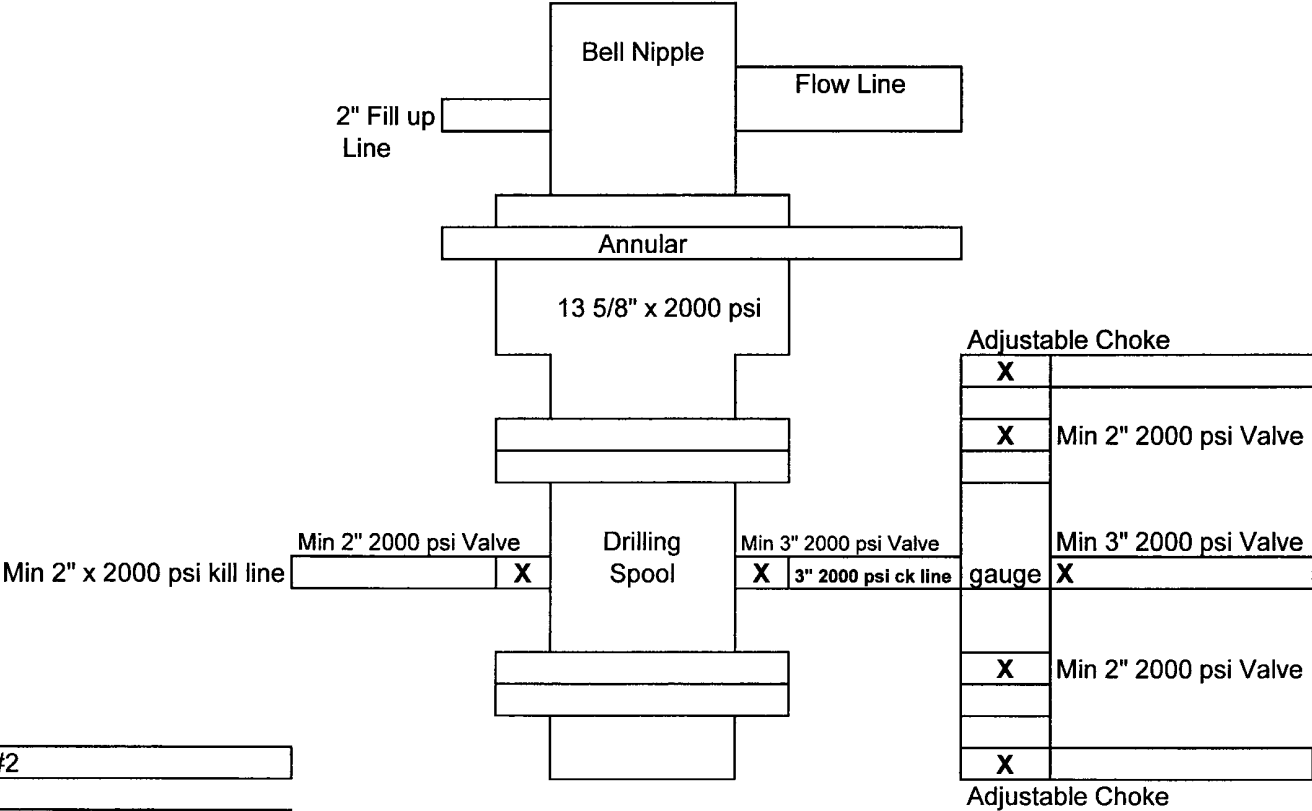
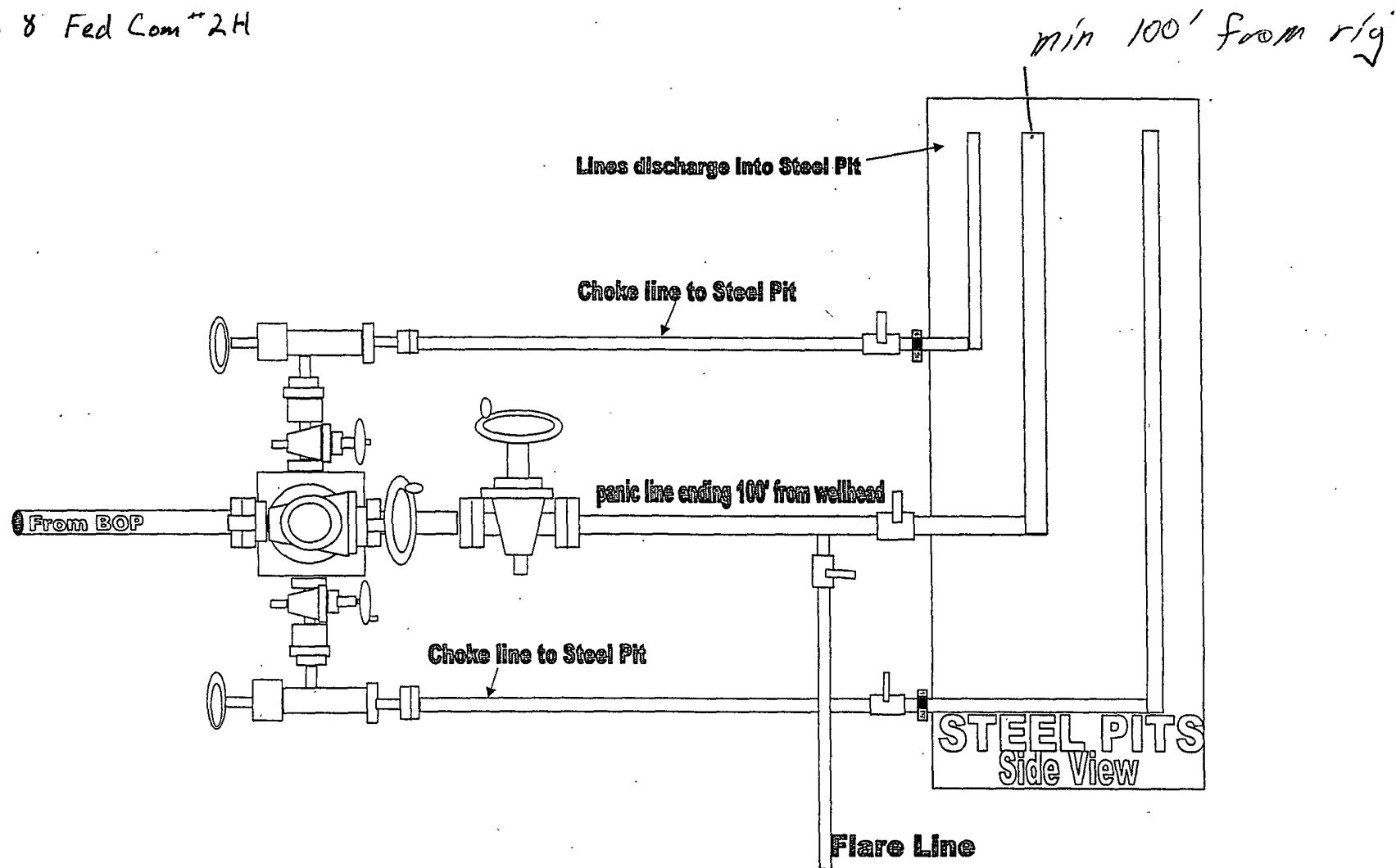


Exhibit #2

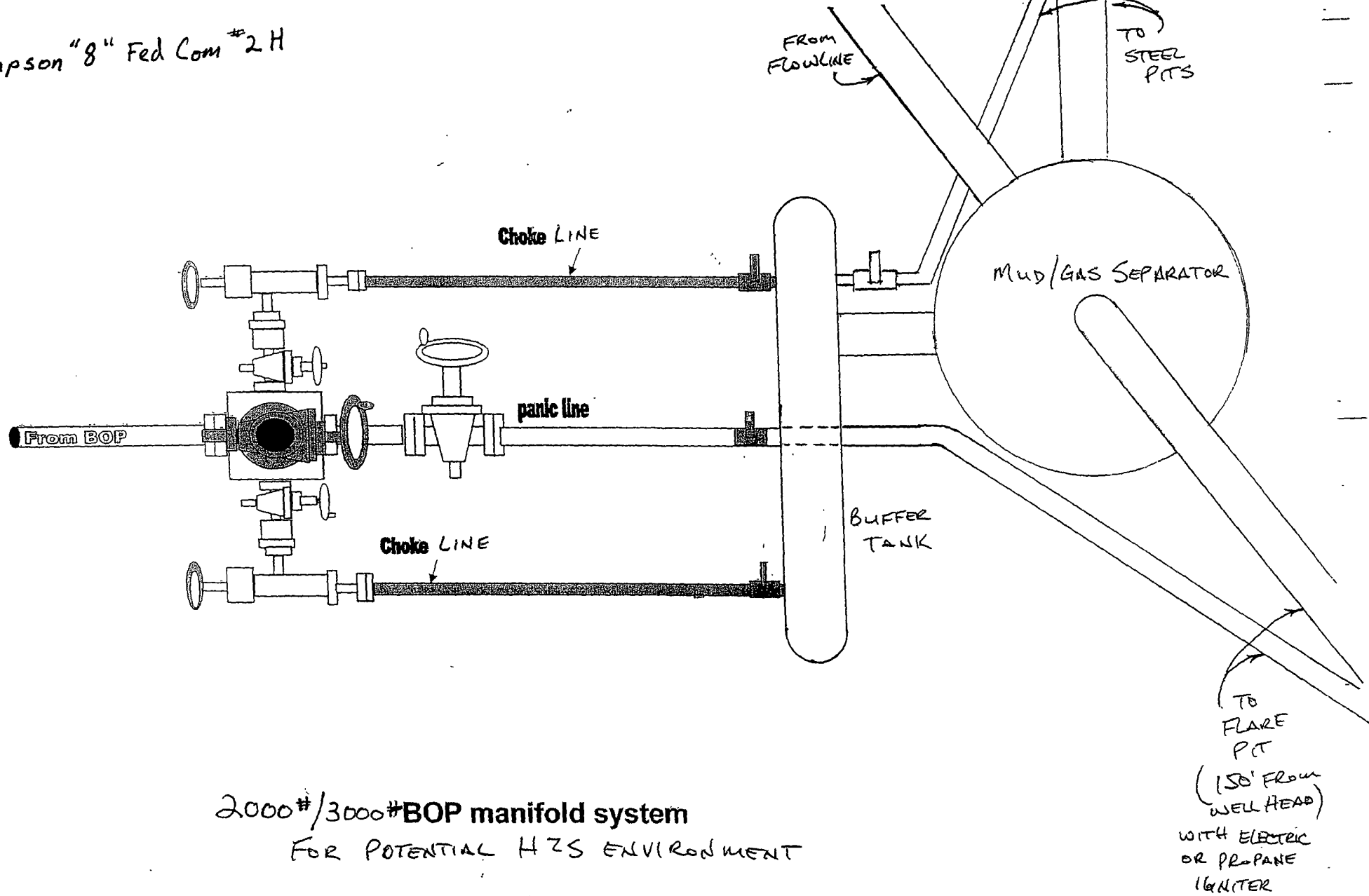
Thompson 8 Fed Com #2H
870' FNL & 310' FEL
Sec 8-T20S-R29E
Eddy, County
New Mexico

Thompson & Fed Com 2H



2000# & 3000# BOP manifold system for Exhibit 2 & 2A

Thompson "8" Fed Com #2 H



2000#/3000#BOP manifold system
FOR POTENTIAL H₂S ENVIRONMENT

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Thompson 8 Federal Com #2H

870' FNL & 310' FEL (SHL)

Sec 8-T20S-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 3000 psi working pressure on 9 5/8" & 7".
- 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.