

Form 3160-3
(August 2007)FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER <i>NOS RCVD 5/16/11</i>		5. Lease Serial No. NM 08277 & FEE
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 <i><14744></i>		7. If Unit or CA Agreement, Name and No.
3a. Address PO BOX 5270 Hobbs, NM 88240	3b. Phone No. (include area code) 575-393-3860	8. Lease Name and Well No. Avalon Ridge "33" Fed Com #2H ☒
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 330' FNL & 345' FWL (Unit D) At proposed prod. zone 330' FSL & 380' FWL (Unit M)		9. API Well No. <i>30-015-39415</i>
14. Distance in miles and direction from nearest town or post office* 13 miles Northeast of Carlsbad, NM		10. Field and Pool, or Exploratory Burton Flat Bone Spring Associated
15. Distance from proposed* location to nearest property or lease line, ft. 330' (Also to nearest drig. unit line, if any)	16. No. of acres in lease 120	11. Sec., T. R. M. or Blk. and Survey or Area Sec 33, T20S, R28E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 440'	19. Proposed Depth 6399' TVD 10778' MD ☒	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3216' GL ☒	22. Approximate date work will start* ASAP	13. State NM
23. Estimated duration 40		
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. | 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM |

25. Signature <i>[Signature]</i>	Name (Printed/Typed) N.M. Young	Date <i>7/7/11</i>
Title Hobbs District Manager		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) Is/ Don Peterson	Date SEP 09 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.

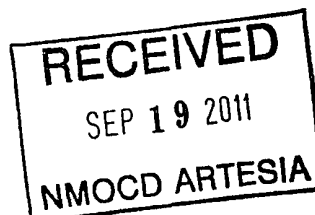
APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Require
& Special Stipulations Attached

Drilling Program
Mewbourne Oil Company
Avalon Ridge "33" Fed Com #2H
330' FNL & 345' FWL (SHL)
Sec 33-T20S-R28E
Lea County, New Mexico

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

Rustler	425'
Salt	Not Present
*Yates	570'
Capitan	780'
*Delaware	2650'
*Bone Springs	5075'
Wolfcamp	Will not penetrate

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

Water	Fresh water is anticipated @ 25' and will be protected by surface casing set at 450' and cemented 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: ** See COA*

A 2000# WP annular BOP 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" and 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. BOPs will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use.

Will test the 9 5/8" and 7" BOPE to 3000# and Annular to 1500# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1st test as per BLM Onshore Oil and Gas Order #2.

4. Drilling Program:

MOC proposes to drill a vertical wellbore to 5821' & kick off to horizontal @ 6394' TVD. The well will be drilled to 10778' MD (6399' TVD). See attached directional plan.

5. Proposed casing and cementing program:

A. Casing Program:

Hole Size	Casing	Wt/Ft	Grade	Depth	Jt Type
17 1/2"	13 3/8" (new)	48#	H40	0'-650' <i>450</i>	ST&C
12 1/4"	9 5/8" (new)	36#	K55	0'-2750' <i>2650</i>	ST&C
8 3/4"	7" (new)	26#	P110	0-5820' MD	LT&C
8 3/4"	7" (new)	26#	P110	5820'-6720' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	6520'-10778' MD	LT&C

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

*Subject to availability of casing.

** See COA*

See COA

see COA

B. Cementing Program:

* See
COA
Wait on
Cement
Time

- i. Surface Casing: 475 sks class "C" cement w/2% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface w/100% excess.
- ii. Intermediate Casing: 250 sacks class "C" (35:65:4) light cement w/salt, fluid loss, and LCM additives. Yield at 2.12 cuft/sk. 400 sks class "C" w/1% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface w/25% excess.
- iii. Production Casing: 345 sacks class "H" (35:65:4) light cement w/salt, fluid loss, and LCM additives. Yield at 2.12 cuft/sk. 400 sks class "H" w/fluid loss additives. Yield at 1.18 cuft/sk. Cmt circulated to surface w/25% excess.
- iv. Production Liner: This will be a Packer/Port Completion from TD up inside 7" casing with packer type liner hanger.

*Referring to above blends of 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'-450'	FW spud mud	8.6-9.0	32-34	NA
450'- 5820' (KOP)	FW	8.5-8.7	28-30	NA
5820'-TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program:

Samples: 10' samples from surface casing to TD
Logging: GR & Gyro from KOP - 100' (5720') to surface. GR from 5820' 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 33-20S-28E

Avalon Ridge 33 Fed Com #2H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

14 June, 2011



DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Avalon Ridge 33 Fed Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3234.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3234.0usft (Patterson UTI #45/47)
Site:	Sec.33-20S-28E	North Reference:	Grid
Well:	Avalon Ridge 33 Fed 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 33-20S-28E		
Site Position:		Northing:	558,806.42 usft
From:	Map	Easting:	544,180.11 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 32' 10.269 N
		Longitude:	104° 11' 23.906 W
		Grid Convergence:	0.08 °

Well:	Avalon Ridge 33 Fed Com #2H		
Well Position	+N/-S	0.0 usft	Northing: 558,806.42 usft
	+E/-W	0.0 usft	Easting: 544,180.11 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 32' 10.269 N
			Longitude: 104° 11' 23.906 W
			Ground Level: 3,216.0 usft

Wellbore:	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/14/2011	7 89	60.37	48,737

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

Vertical Section	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.25

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 (°)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5,821.0	0.00	0.00	5,821.0	0.0	0.0	0.00	0.00	0.00	0.00
6,720.3	89.93	179.25	6,394.0	-572.2	7.5	10.00	10.00	19.93	179.25
10,778.0	89.93	179.25	6,399.0	-4,629.5	60.6	0.00	0.00	0.00	0.00 PBHL Avalon Ridge

DDC Well Planning Report



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Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3234.0usft (Patterson UTI #45/47)
Site:	Sec 33-20S-28E	North Reference:	Grid
Well:	Avalon Ridge 33 Fed 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)
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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Well:	Avalon Ridge 33 Fed 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)	
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	
Build 10°/100' @ 5821' MD										
5,821.0	0.00	0.00	5,821.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,900.0	7.90	179.25	5,899.7	-5.4	0.1	5.4	10.00	10.00	0.00	
6,000.0	17.90	179.25	5,997.1	-27.7	0.4	27.7	10.00	10.00	0.00	
6,100.0	27.90	179.25	6,089.1	-66.6	0.9	66.6	10.00	10.00	0.00	
6,200.0	37.90	179.25	6,173.0	-120.8	1.6	120.8	10.00	10.00	0.00	
6,300.0	47.90	179.25	6,246.1	-188.8	2.5	188.8	10.00	10.00	0.00	
6,400.0	57.90	179.25	6,306.4	-268.5	3.5	268.5	10.00	10.00	0.00	
6,500.0	67.90	179.25	6,351.9	-357.4	4.7	357.4	10.00	10.00	0.00	
6,600.0	77.90	179.25	6,381.2	-452.8	5.9	452.9	10.00	10.00	0.00	
6,700.0	87.90	179.25	6,393.6	-551.9	7.2	552.0	10.00	10.00	0.00	
EOB @ 6720' MD / 89.93° Inc / 179.25° Azm / 6394' TVD										
6,720.3	89.93	179.25	6,394.0	-572.2	7.5	572.2	10.00	10.00	0.00	
6,800.0	89.93	179.25	6,394.1	-651.9	8.5	652.0	0.00	0.00	0.00	
6,900.0	89.93	179.25	6,394.2	-751.9	9.8	752.0	0.00	0.00	0.00	
7,000.0	89.93	179.25	6,394.3	-851.9	11.2	852.0	0.00	0.00	0.00	
7,100.0	89.93	179.25	6,394.4	-951.9	12.5	952.0	0.00	0.00	0.00	
7,200.0	89.93	179.25	6,394.6	-1,051.9	13.8	1,052.0	0.00	0.00	0.00	
7,300.0	89.93	179.25	6,394.7	-1,151.9	15.1	1,152.0	0.00	0.00	0.00	
7,400.0	89.93	179.25	6,394.8	-1,251.8	16.4	1,252.0	0.00	0.00	0.00	
7,500.0	89.93	179.25	6,394.9	-1,351.8	17.7	1,352.0	0.00	0.00	0.00	
7,600.0	89.93	179.25	6,395.1	-1,451.8	19.0	1,452.0	0.00	0.00	0.00	
7,700.0	89.93	179.25	6,395.2	-1,551.8	20.3	1,552.0	0.00	0.00	0.00	
7,800.0	89.93	179.25	6,395.3	-1,651.8	21.6	1,652.0	0.00	0.00	0.00	
7,900.0	89.93	179.25	6,395.4	-1,751.8	22.9	1,752.0	0.00	0.00	0.00	
8,000.0	89.93	179.25	6,395.5	-1,851.8	24.2	1,852.0	0.00	0.00	0.00	
8,100.0	89.93	179.25	6,395.7	-1,951.8	25.6	1,952.0	0.00	0.00	0.00	
8,200.0	89.93	179.25	6,395.8	-2,051.8	26.9	2,052.0	0.00	0.00	0.00	
8,300.0	89.93	179.25	6,395.9	-2,151.8	28.2	2,152.0	0.00	0.00	0.00	
8,400.0	89.93	179.25	6,396.0	-2,251.8	29.5	2,252.0	0.00	0.00	0.00	
8,500.0	89.93	179.25	6,396.2	-2,351.8	30.8	2,352.0	0.00	0.00	0.00	
8,600.0	89.93	179.25	6,396.3	-2,451.7	32.1	2,452.0	0.00	0.00	0.00	
8,700.0	89.93	179.25	6,396.4	-2,551.7	33.4	2,552.0	0.00	0.00	0.00	
8,800.0	89.93	179.25	6,396.5	-2,651.7	34.7	2,652.0	0.00	0.00	0.00	
8,900.0	89.93	179.25	6,396.7	-2,751.7	36.0	2,752.0	0.00	0.00	0.00	
9,000.0	89.93	179.25	6,396.8	-2,851.7	37.3	2,852.0	0.00	0.00	0.00	
9,100.0	89.93	179.25	6,396.9	-2,951.7	38.7	2,952.0	0.00	0.00	0.00	
9,200.0	89.93	179.25	6,397.0	-3,051.7	40.0	3,052.0	0.00	0.00	0.00	
9,300.0	89.93	179.25	6,397.2	-3,151.7	41.3	3,152.0	0.00	0.00	0.00	
9,400.0	89.93	179.25	6,397.3	-3,251.7	42.6	3,252.0	0.00	0.00	0.00	
9,500.0	89.93	179.25	6,397.4	-3,351.7	43.9	3,352.0	0.00	0.00	0.00	
9,600.0	89.93	179.25	6,397.5	-3,451.7	45.2	3,452.0	0.00	0.00	0.00	
9,700.0	89.93	179.25	6,397.7	-3,551.7	46.5	3,552.0	0.00	0.00	0.00	
9,800.0	89.93	179.25	6,397.8	-3,651.6	47.8	3,652.0	0.00	0.00	0.00	
9,900.0	89.93	179.25	6,397.9	-3,751.6	49.1	3,752.0	0.00	0.00	0.00	
10,000.0	89.93	179.25	6,398.0	-3,851.6	50.4	3,852.0	0.00	0.00	0.00	
10,100.0	89.93	179.25	6,398.2	-3,951.6	51.7	3,952.0	0.00	0.00	0.00	
10,200.0	89.93	179.25	6,398.3	-4,051.6	53.1	4,052.0	0.00	0.00	0.00	

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Avalon Ridge 33 Fed Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3234.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3234.0usft (Patterson UTI #45/47)
Site:	Sec 33-20S-28E	North Reference:	Grid
Well:	Avalon Ridge 33 Fed Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

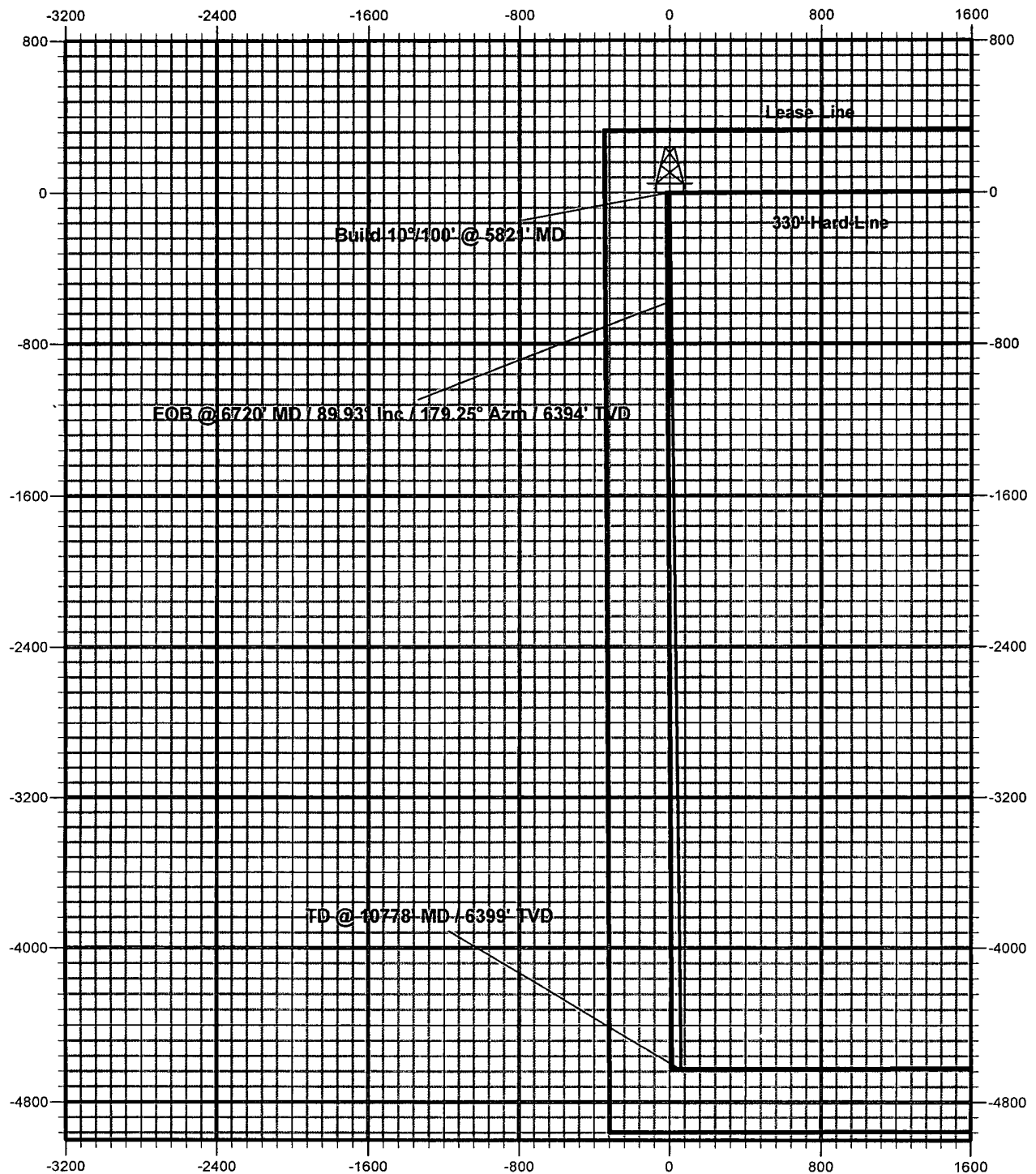
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,300.0	89.93	179.25	6,398.4	-4,151.6	54.4	4,152.0	0.00	0.00	0.00	
10,400.0	89.93	179.25	6,398.5	-4,251.6	55.7	4,252.0	0.00	0.00	0.00	
10,500.0	89.93	179.25	6,398.7	-4,351.6	57.0	4,352.0	0.00	0.00	0.00	
10,600.0	89.93	179.25	6,398.8	-4,451.6	58.3	4,452.0	0.00	0.00	0.00	
10,700.0	89.93	179.25	6,398.9	-4,551.6	59.6	4,552.0	0.00	0.00	0.00	
TD @ 10778' MD / 6399' TVD										
10,778.0	89.93	179.25	6,399.0	-4,629.5	60.6	4,629.9	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 Avalon Ridge 3		0.00	0.00	6,399.0	-4,629.5	60.6	554,176.90	544,240.73	32° 31' 24.455 N	104° 11' 23.271 W
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,821.0	5,821.0	0.0	0.0	Build 10°/100' @ 5821' MD	
6,720.3	6,394.0	-572.2	7.5	EOB @ 6720' MD / 89.93° Inc / 179.25° Azm / 6394' TVD	
10,778.0	6,399.0	-4,629.5	60.6	TD @ 10778' MD / 6399' TVD	

Mewbourne Oil Company

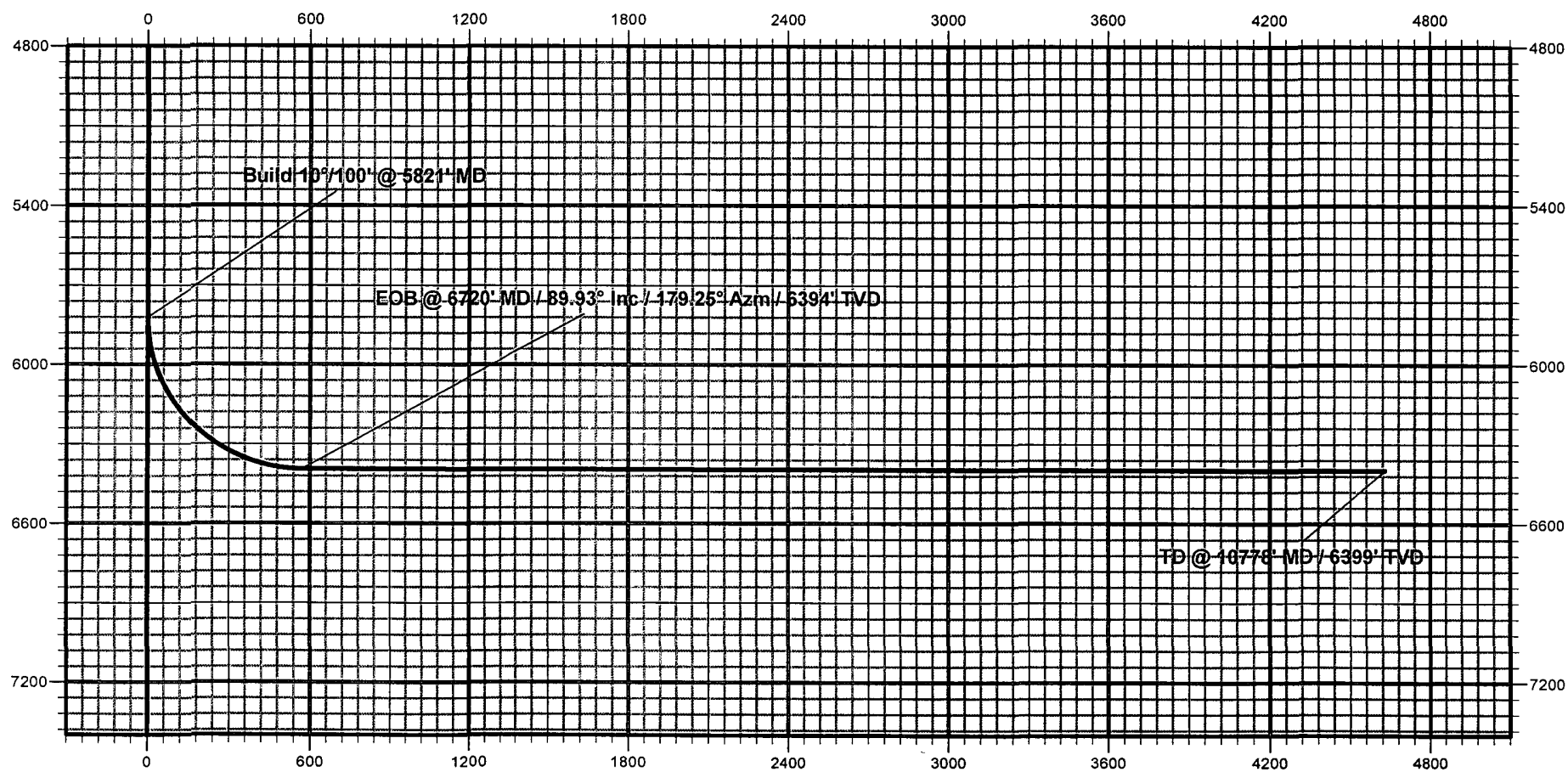
Eddy County, New Mexico
Avalon Ridge 33 Fed Com #2H
Quote 110430



Mewbourne Oil Company



Eddy County, New Mexico
Avalon Ridge 33 Fed Com #2H
Quote 110430



Vertical Section at 179.25° (600 usft/in)

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

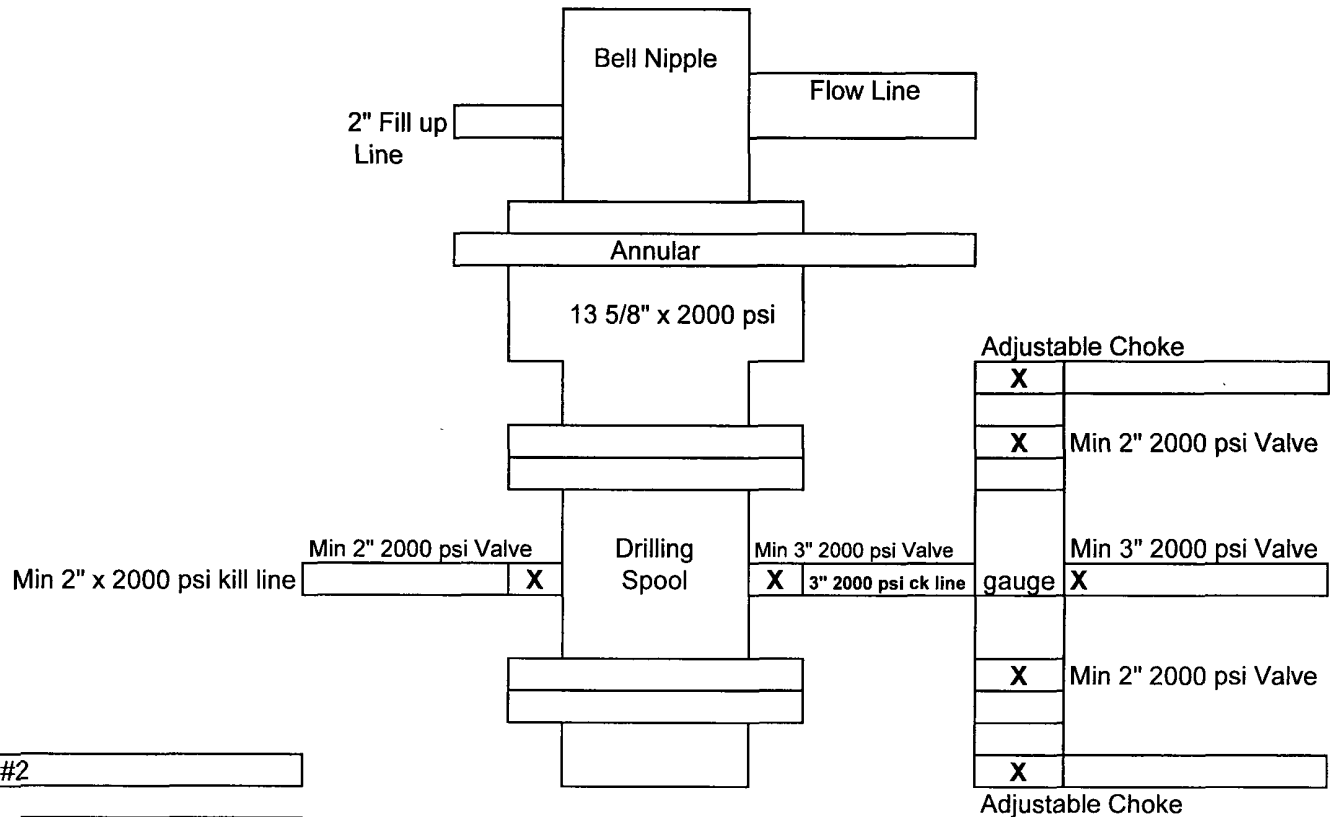


Exhibit #2

Avalon Ridge "33" Fed Com #2H
330' FNL & 345' FWL
Sec 33-T20S-R28E
Eddy, County
New Mexico

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

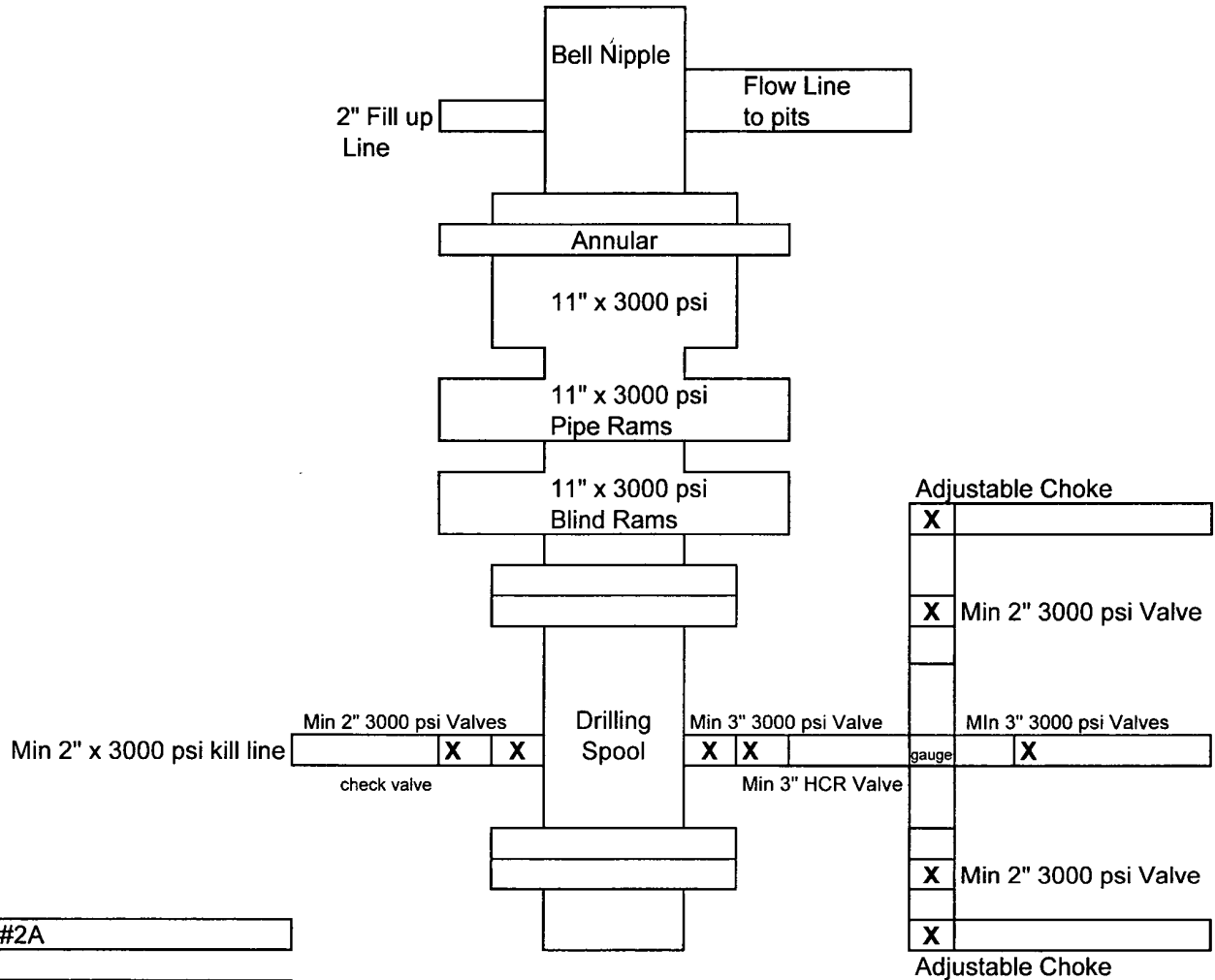


Exhibit #2A

Avalon Ridge "33" Fed Com #2H
330' FNL & 345' FWL
Sec 33-T20S-R28E
Eddy, County
New Mexico

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Avalon Ridge "33" Fed Com #2H

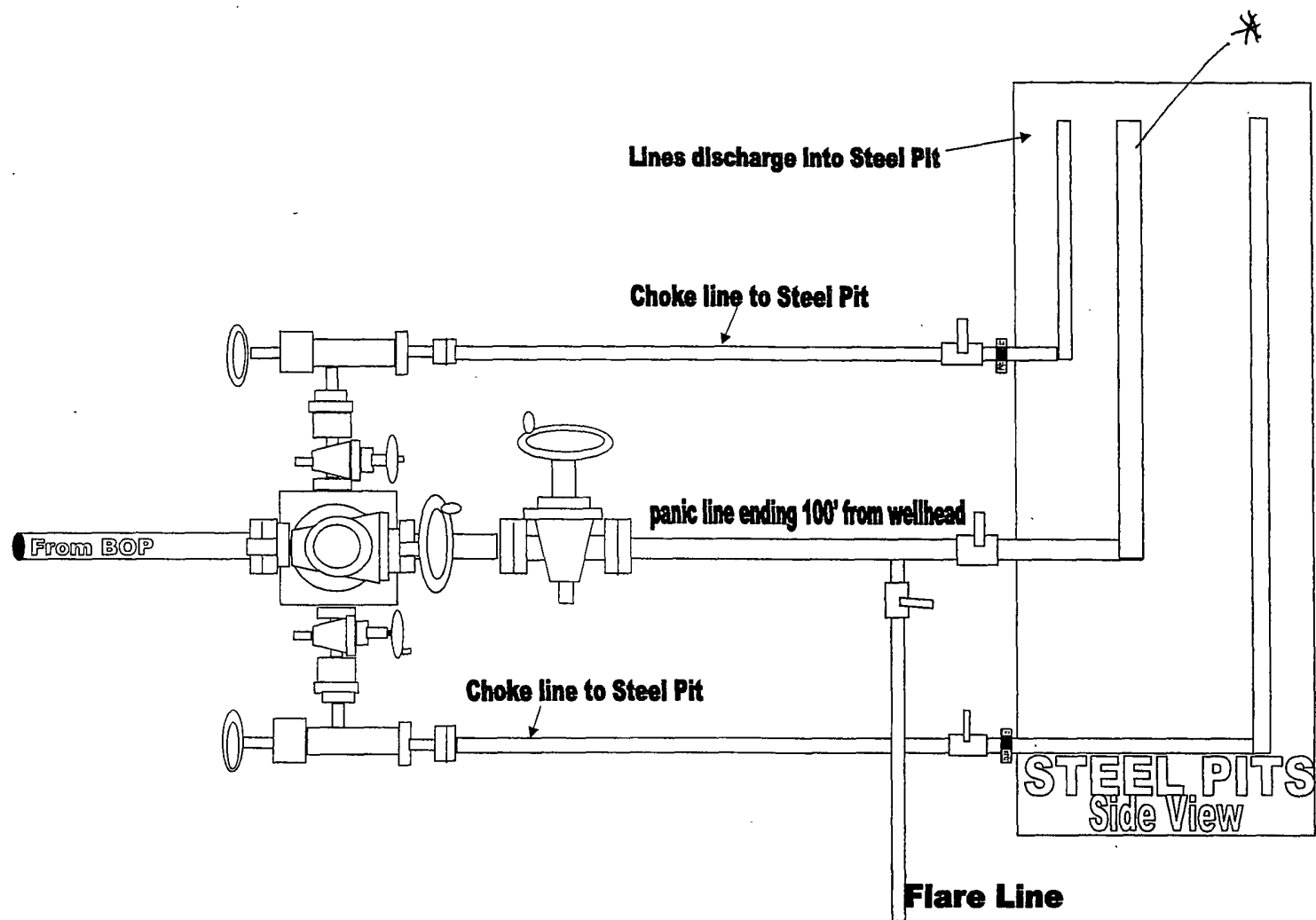
330' FNL & 345' FWL (SHL)

Sec 33-T20S-R28E

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.



3000# BOP manifold system for Exhibit 2 & 2A

* Note:
Panic Line Min... 100' From Rig

