

ATS-11-841

OCD-ARTESIA

SECRETARY'S POTASH

Form 3160-3
(August 2007)

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010 **EA 1168**

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. NM-27279 NM-033775 LC-028978-A 34	
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 88241		8. Lease Name and Well No. Bradley "28" Fed Com (38244)	
3b. Phone No. (include area code) 575-393-5905		9. API Well No. #2H 30-015-39458	
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 500' FNL & 150' FWL (Unit D) At proposed prod. zone 500' FNL & 330' FEL (Unit A)		10. Field and Pool, or Exploratory Santo Nino Bone Spring (54600)	
11. Sec., T. R. M. or Blk. and Survey or Area Sec 28, T18S, R30E		12. County or Parish Eddy	
13. State NM		14. Distance in miles and direction from nearest town or post office* 30 miles NE of Carlsbad, 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 40	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1083'	19. Proposed Depth 8278' TVD 12770' MD ☒	20. BLM/BIA Bond No. on file NM1693, Nationwide	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3420' GL	22. Approximate date work will start* ASAP	23. Estimated duration 45 days	

UNORTHODOX
LOCATION

RECEIVED
SEP 22 2011
NMOSD ARTESIA

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 Brett Bednarz	Name (Printed/Typed) Brett Bednarz	Date July 18, 2011
Title Petroleum Engineer		
Approved by (Signature) /s/ Jesse J. Juen	Name (Printed/Typed)	Date SEP 12 2011
Title ACTING STATE DIRECTOR	Office NM STATE 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 APPROVAL

11-35
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

(Signature)

Drilling Program
Mewbourne Oil Company
Bradley "28" Federal Com #2H
500' FNL & 150' FWL (SHL)
Sec 28-T18S-R30E
Eddy County, New Mexico

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

Rustler	300'
Top Salt	450'
Base Salt	900'
*Yates	1500'
Seven Rivers	1650'
*Queen	2650'
Grayburg	2985'
San Andres	3500'
*Delaware	4000'
*Bone Springs Lime	5100'

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

Water	Fresh water is anticipated at 235' and will be protected by setting surface casing at 325' and by cementing to surface.
Hydrocarbons	Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary

3. Pressure control equipment:

A 2000# WP Annular will be installed after running 13 3/8" casing. A 3000# WP Double Ram BOP and 3000# WP Annular will be installed after running 9 5/8" & 7" 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. BOP's 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 the 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. MOC proposes to drill a vertical wellbore to 7645' & kick off to horizontal @ 8218' TVD. The well will be drilled to 12770' MD (8278' 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	0-325'	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-1600' 1500'	ST&C
8 3/4"	7" (new)	26#	P110	0'-7645' MD	LT&C
8 3/4"	7" (new)	26#	P110	7645'-8545' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	8345'-12770' 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

B. Cementing Program:

- i. Surface Casing: 470 sks Class "C" cement w/2% CaCl. Yield at 1.34 cuft/sk. Cmt circulated to surface w/100% excess..
- ii. Intermediate Casing: 200 sacks Class "C" (35:65:4) light cement w/ salt & LCM additives. Yield @ 2.12 cuft/sk. 200 sacks Class "C" cement w/2% CaCl2. Yield at 1.18 cuft/sk. Cmt circulated to surface w/25% excess.
- see. Production Casing: 520 sacks Class "H" (35:65:4) light cement w/ salt & LCM additives. Yield @ 2.12 cuft/sk. 400 sacks Class "H" cement. Yield @ 1.18 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:

Interval	Type System	Weight	Viscosity	Fluid Loss
0' - 325'	FW spud mud	8.6-9.0	32-34	NA
325' - 1600' 1500	Brine water	10.0-10.2	28-30	NA
1600' - 7645' (KOP)	FW	8.5-8.7	28-30	NA
7645' - TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program:

Samples: 10' samples from surface casing to TD
Logging: CN/GR & Gyro from KOP -100' (7545') to surface. GR from 7545' 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 28-18S-30E

Bradley 28 Fed Com #2H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

07 July, 2011



DDC

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bradley 28 Fed Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3438.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3438.0usft (Patterson UTI #45/47)
Site:	Sec 28-18S-30E	North Reference:	Grid
Well:	Bradley 28 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 28-18S-30E		
Site Position:		Northing:	626,279.25 usft
From:	Map	Easting:	607,181.52 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 43' 16.513 N
		Longitude:	103° 59' 5.373 W
		Grid Convergence:	0.19 °

Well	Bradley 28 Fed Com #2H		
Well Position	+N/-S	1,092.3 usft	Northing: 627,371.57 usft
	+E/-W	85.3 usft	Easting: 607,266.79 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 43' 27.319 N
			Longitude: 103° 59' 4.333 W
			Ground Level: 3,420.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/7/2011	7.81	60.58	48,866

Design	Design #1		
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Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	89.92

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	
7,645.1	0.00	0.00	7,645.1	0.0	0.0	0.00	0.00	0.00	0.00	
8,537.0	89.19	89.92	8,218.0	0.8	564.8	10.00	10.00	10.08	89.92	
12,769.6	89.19	89.92	8,278.0	6.4	4,797.0	0.00	0.00	0.00	0.00	PBHL Bradley 28 F.

DDC Well Planning Report



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Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3438.0usft (Patterson UTI #45/47)
Site:	Sec 28-18S-30E	North Reference:	Grid
Well:	Bradley 28 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	

DDC
Well Planning Report



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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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 10°/100' @ 7645' MD									
7,645.1	0.00	0.00	7,645.1	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	5.49	89.92	7,699.9	0.0	2.6	2.6	10.00	10.00	0.00
7,800.0	15.49	89.92	7,798.1	0.0	20.8	20.8	10.00	10.00	0.00
7,900.0	25.49	89.92	7,891.7	0.1	55.8	55.8	10.00	10.00	0.00
8,000.0	35.49	89.92	7,977.7	0.1	106.4	106.4	10.00	10.00	0.00
8,100.0	45.49	89.92	8,053.7	0.2	171.3	171.3	10.00	10.00	0.00
8,200.0	55.49	89.92	8,117.2	0.3	248.3	248.3	10.00	10.00	0.00
8,300.0	65.49	89.92	8,166.4	0.4	335.3	335.3	10.00	10.00	0.00
8,400.0	75.49	89.92	8,199.8	0.6	429.4	429.4	10.00	10.00	0.00
8,500.0	85.49	89.92	8,216.3	0.7	527.9	527.9	10.00	10.00	0.00
EOB @ 8537' MD / 89.19° Inc / 89.92° Azm / 8218' TVD									
8,537.0	89.19	89.92	8,218.0	0.8	564.8	564.8	10.00	10.00	0.00
8,600.0	89.19	89.92	8,218.9	0.8	627.9	627.9	0.00	0.00	0.00
8,700.0	89.19	89.92	8,220.3	1.0	727.8	727.8	0.00	0.00	0.00
8,800.0	89.19	89.92	8,221.7	1.1	827.8	827.8	0.00	0.00	0.00
8,900.0	89.19	89.92	8,223.1	1.2	927.8	927.8	0.00	0.00	0.00
9,000.0	89.19	89.92	8,224.6	1.4	1,027.8	1,027.8	0.00	0.00	0.00
9,100.0	89.19	89.92	8,226.0	1.5	1,127.8	1,127.8	0.00	0.00	0.00
9,200.0	89.19	89.92	8,227.4	1.6	1,227.8	1,227.8	0.00	0.00	0.00
9,300.0	89.19	89.92	8,228.8	1.8	1,327.8	1,327.8	0.00	0.00	0.00
9,400.0	89.19	89.92	8,230.2	1.9	1,427.8	1,427.8	0.00	0.00	0.00
9,500.0	89.19	89.92	8,231.7	2.0	1,527.8	1,527.8	0.00	0.00	0.00
9,600.0	89.19	89.92	8,233.1	2.2	1,627.7	1,627.8	0.00	0.00	0.00
9,700.0	89.19	89.92	8,234.5	2.3	1,727.7	1,727.7	0.00	0.00	0.00
9,800.0	89.19	89.92	8,235.9	2.5	1,827.7	1,827.7	0.00	0.00	0.00
9,900.0	89.19	89.92	8,237.3	2.6	1,927.7	1,927.7	0.00	0.00	0.00
10,000.0	89.19	89.92	8,238.7	2.7	2,027.7	2,027.7	0.00	0.00	0.00
10,100.0	89.19	89.92	8,240.2	2.9	2,127.7	2,127.7	0.00	0.00	0.00
10,200.0	89.19	89.92	8,241.6	3.0	2,227.7	2,227.7	0.00	0.00	0.00

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bradley 28 Fed Com #2H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3438.0usft (Patterson UTI #45/47)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3438.0usft (Patterson UTI #45/47)
Site:	Sec 28-18S-30E	North Reference:	Grid
Well:	Bradley 28 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	89.19	89.92	8,243.0	3.1	2,327.7	2,327.7	0.00	0.00	0.00
10,400.0	89.19	89.92	8,244.4	3.3	2,427.7	2,427.7	0.00	0.00	0.00
10,500.0	89.19	89.92	8,245.8	3.4	2,527.7	2,527.7	0.00	0.00	0.00
10,600.0	89.19	89.92	8,247.2	3.5	2,627.6	2,627.6	0.00	0.00	0.00
10,700.0	89.19	89.92	8,248.7	3.7	2,727.6	2,727.6	0.00	0.00	0.00
10,800.0	89.19	89.92	8,250.1	3.8	2,827.6	2,827.6	0.00	0.00	0.00
10,900.0	89.19	89.92	8,251.5	3.9	2,927.6	2,927.6	0.00	0.00	0.00
11,000.0	89.19	89.92	8,252.9	4.1	3,027.6	3,027.6	0.00	0.00	0.00
11,100.0	89.19	89.92	8,254.3	4.2	3,127.6	3,127.6	0.00	0.00	0.00
11,200.0	89.19	89.92	8,255.8	4.3	3,227.6	3,227.6	0.00	0.00	0.00
11,300.0	89.19	89.92	8,257.2	4.5	3,327.6	3,327.6	0.00	0.00	0.00
11,400.0	89.19	89.92	8,258.6	4.6	3,427.6	3,427.6	0.00	0.00	0.00
11,500.0	89.19	89.92	8,260.0	4.7	3,527.6	3,527.6	0.00	0.00	0.00
11,600.0	89.19	89.92	8,261.4	4.9	3,627.5	3,627.6	0.00	0.00	0.00
11,700.0	89.19	89.92	8,262.8	5.0	3,727.5	3,727.5	0.00	0.00	0.00
11,800.0	89.19	89.92	8,264.3	5.1	3,827.5	3,827.5	0.00	0.00	0.00
11,900.0	89.19	89.92	8,265.7	5.3	3,927.5	3,927.5	0.00	0.00	0.00
12,000.0	89.19	89.92	8,267.1	5.4	4,027.5	4,027.5	0.00	0.00	0.00
12,100.0	89.19	89.92	8,268.5	5.5	4,127.5	4,127.5	0.00	0.00	0.00
12,200.0	89.19	89.92	8,269.9	5.7	4,227.5	4,227.5	0.00	0.00	0.00
12,300.0	89.19	89.92	8,271.3	5.8	4,327.5	4,327.5	0.00	0.00	0.00
12,400.0	89.19	89.92	8,272.8	5.9	4,427.5	4,427.5	0.00	0.00	0.00
12,500.0	89.19	89.92	8,274.2	6.1	4,527.5	4,527.5	0.00	0.00	0.00
12,600.0	89.19	89.92	8,275.6	6.2	4,627.4	4,627.4	0.00	0.00	0.00
12,700.0	89.19	89.92	8,277.0	6.3	4,727.4	4,727.4	0.00	0.00	0.00
TD @ 12770' MD / 8278' TVD									
12,769.6	89.19	89.92	8,278.0	6.4	4,797.0	4,797.0	0.00	0.00	0.00

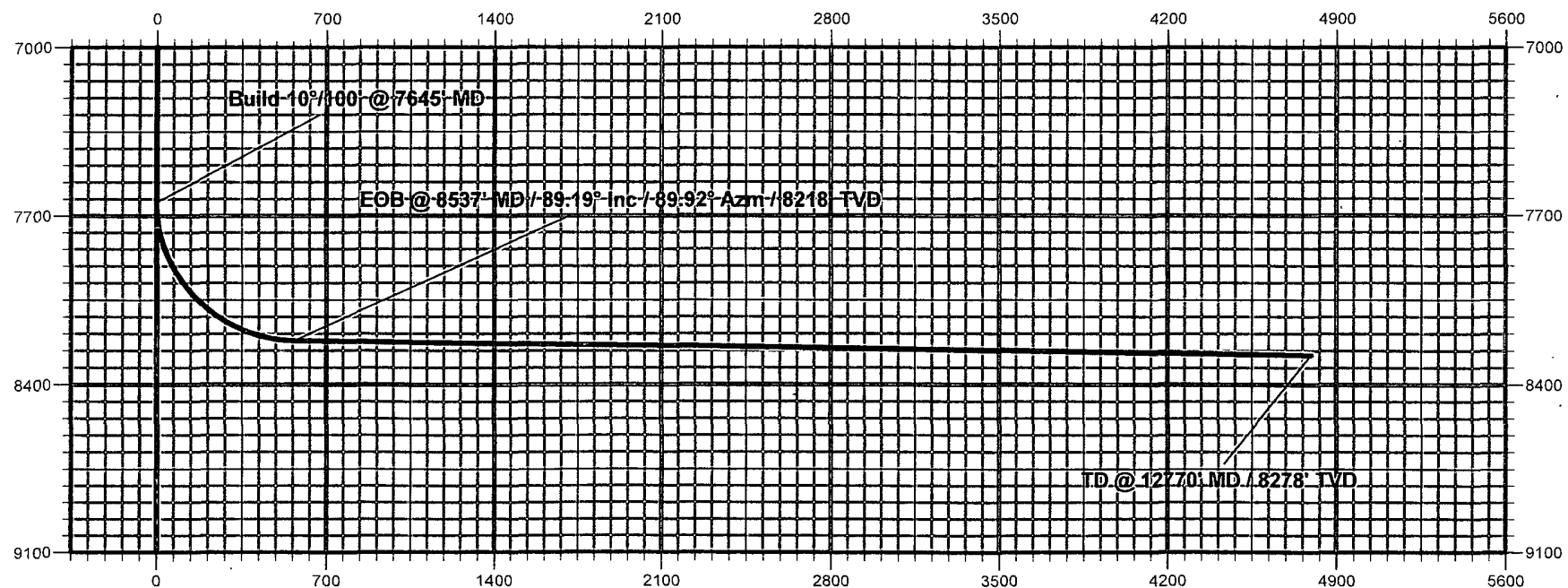
Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Bradley 28 Fed	0.00	0.00	8,278.0	6.4	4,797.0	627,378.00	612,063.80	32° 43' 27.223 N	103° 58' 8.180 W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,645.1	7,645.1	0.0	0.0	Build 10°/100' @ 7645' MD
8,537.0	8,218.0	0.8	564.8	EOB @ 8537' MD / 89.19° Inc / 89.92° Azm / 8218' TVD
12,769.6	8,278.0	6.4	4,797.0	TD @ 12770' MD / 8278' TVD

Mewbourne Oil Company



Eddy County, New Mexico
Bradley 28 Fed Com #2H
Quote 110480



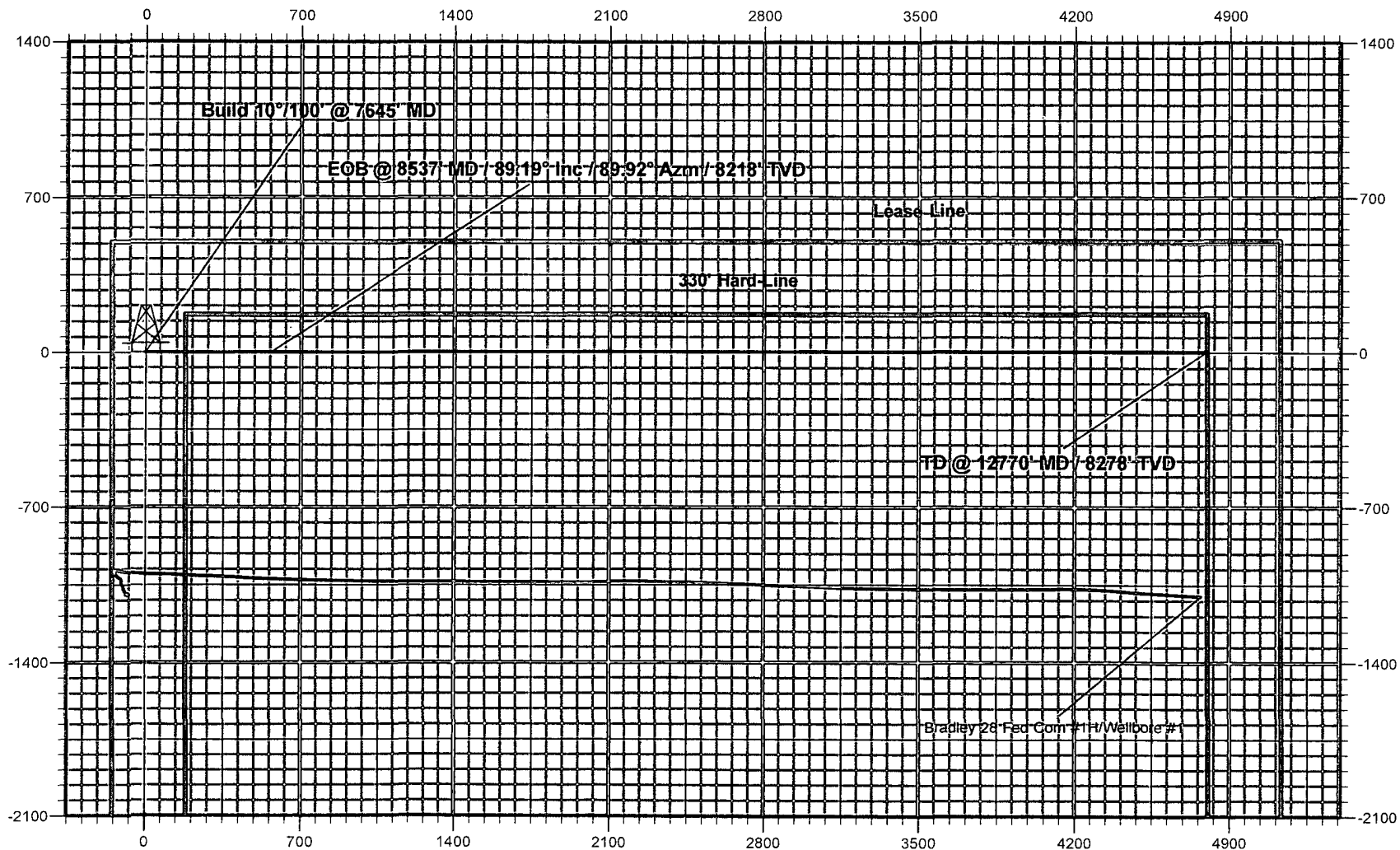
Vertical Section at 89.92° (700 usft/in)

Mewbourne Oil Company

Eddy County, New Mexico

Bradley 28 Fed Com #2H

Quote 110480



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

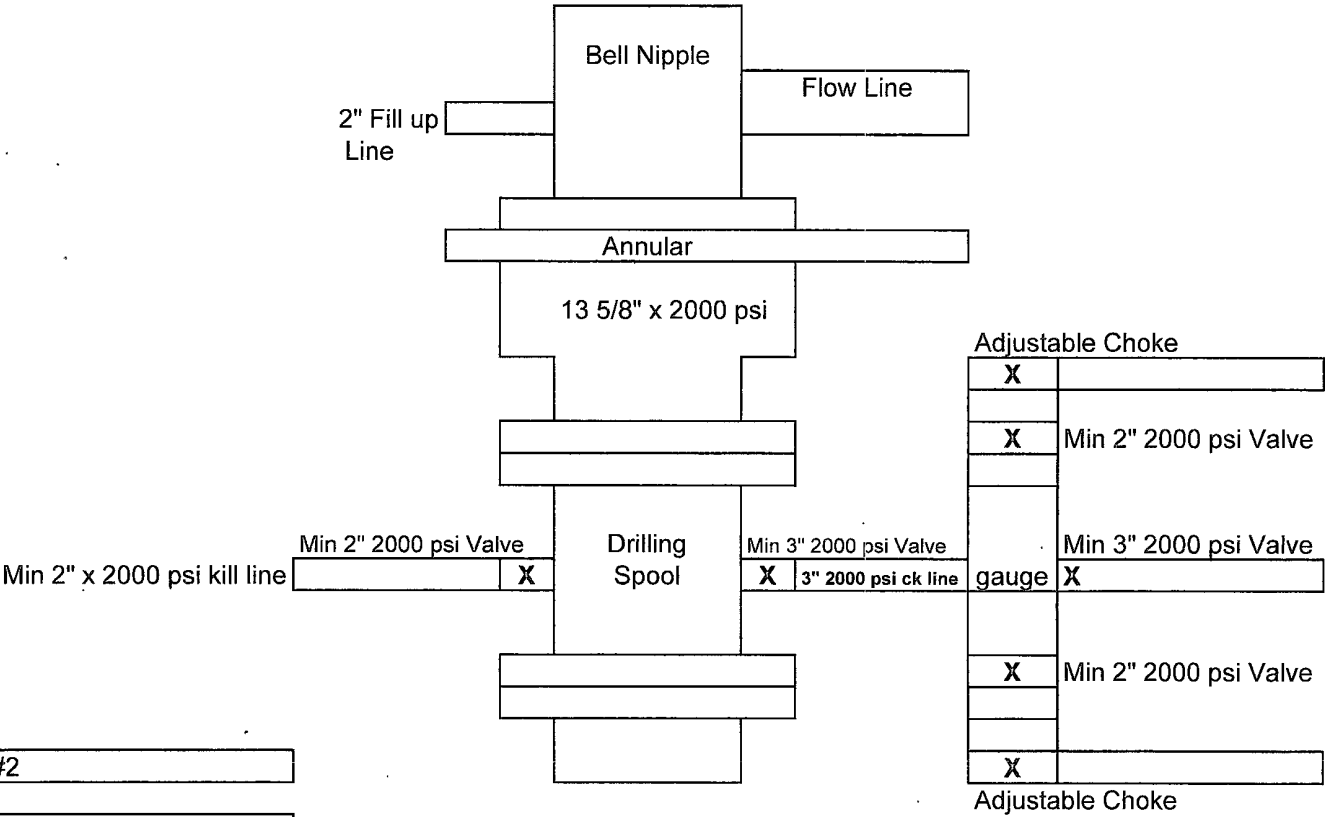


Exhibit #2

Bradley "28" Fed Com #2H
500' FNL & 150' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico

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

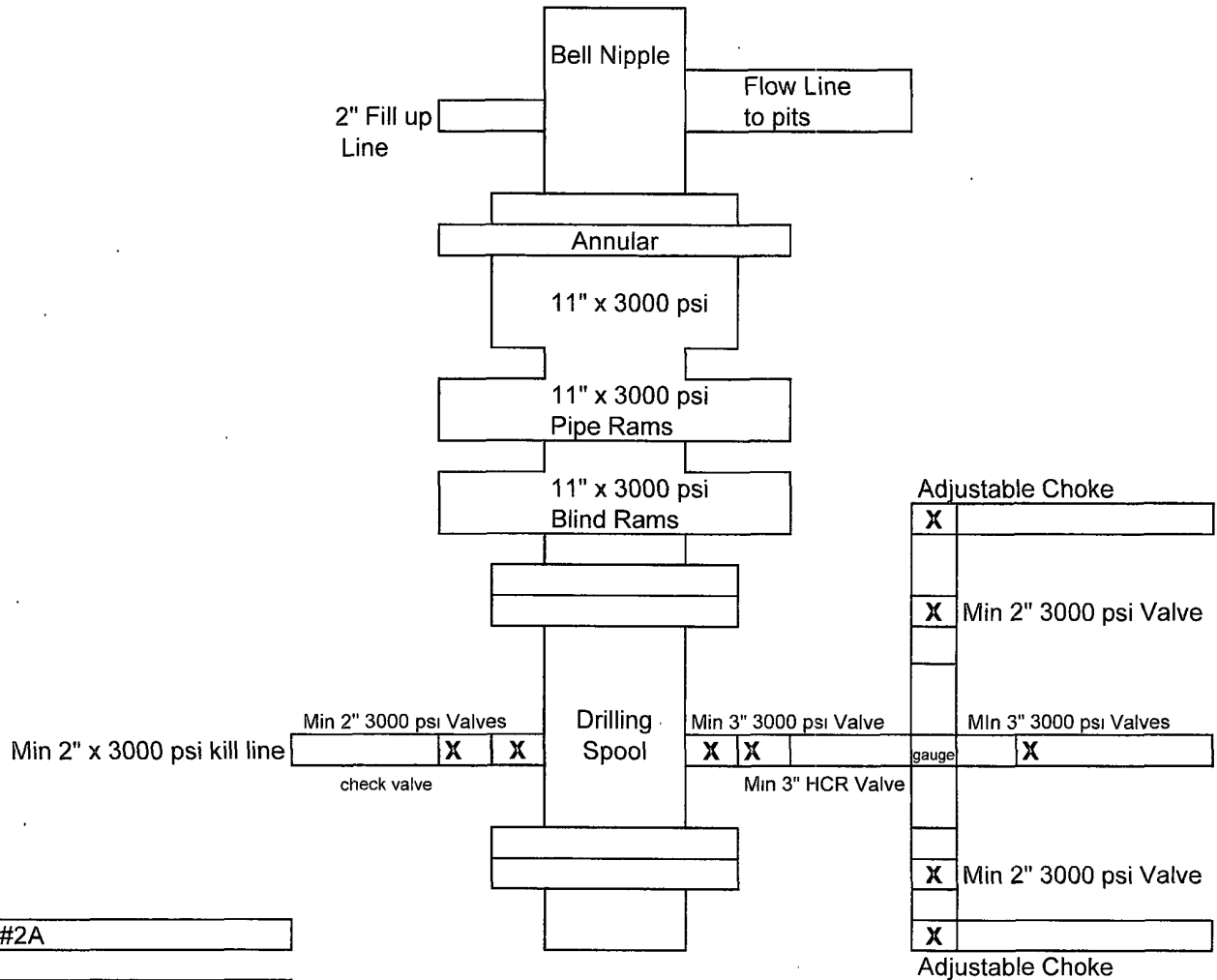


Exhibit #2A

Bradley 28 Federal Com #2H
500' FNL & 150' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Bradley "28" Federal Com #2H

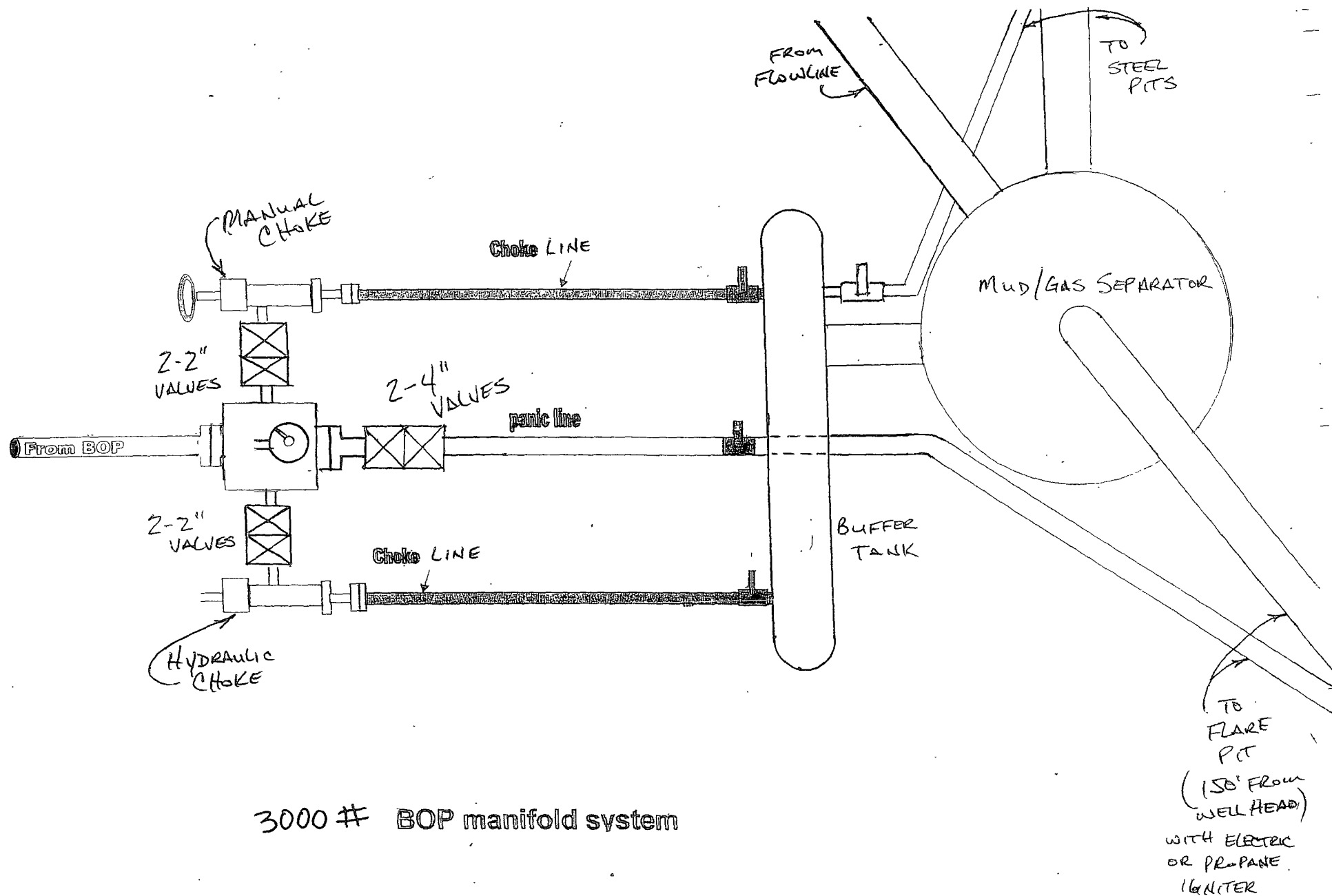
500' FNL & 150' FWL (SHL)

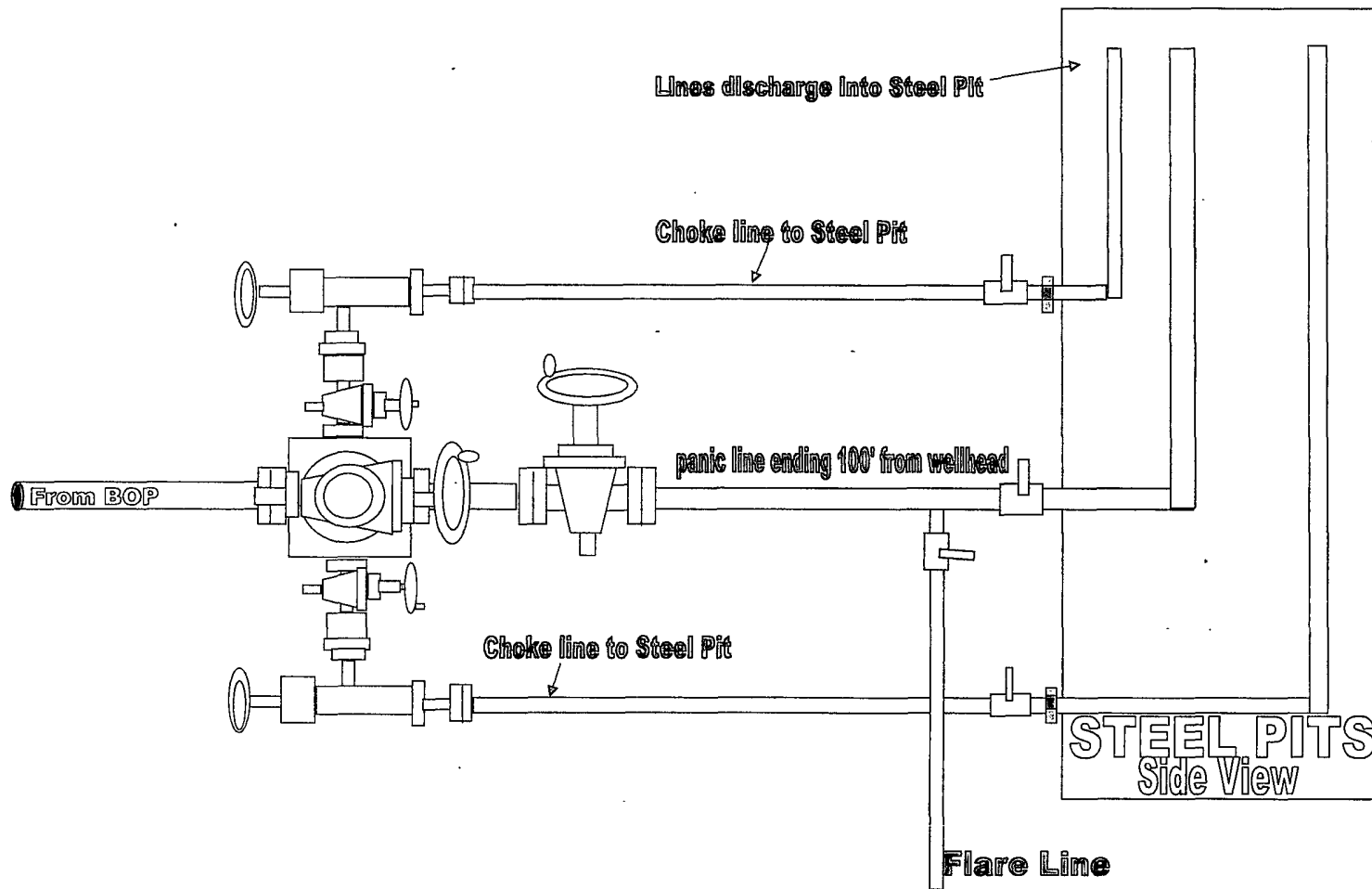
Sec 28-T18S-R30E

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" casing.
- III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.





3000# BOP manifold system for Exhibit 2 & 2A