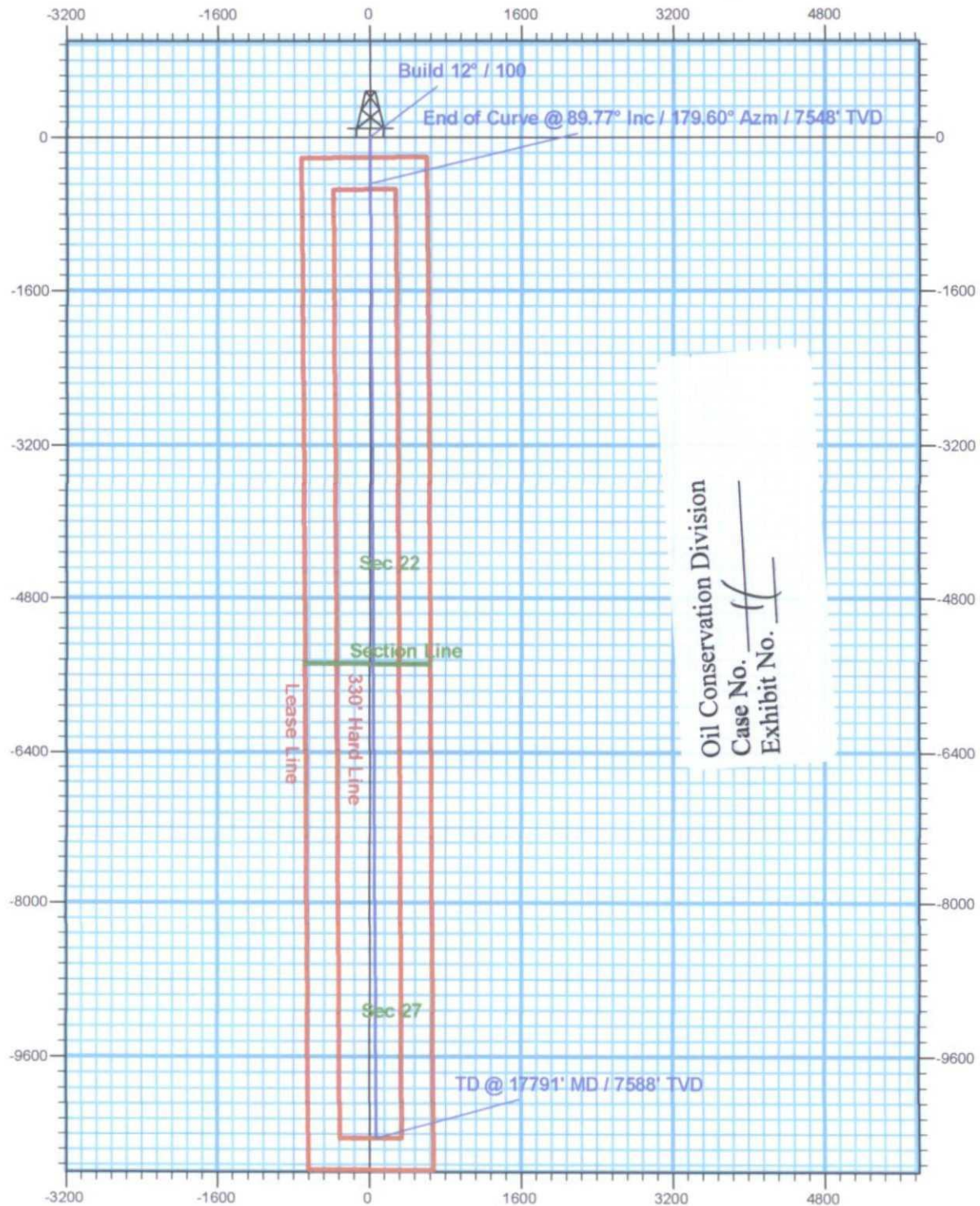


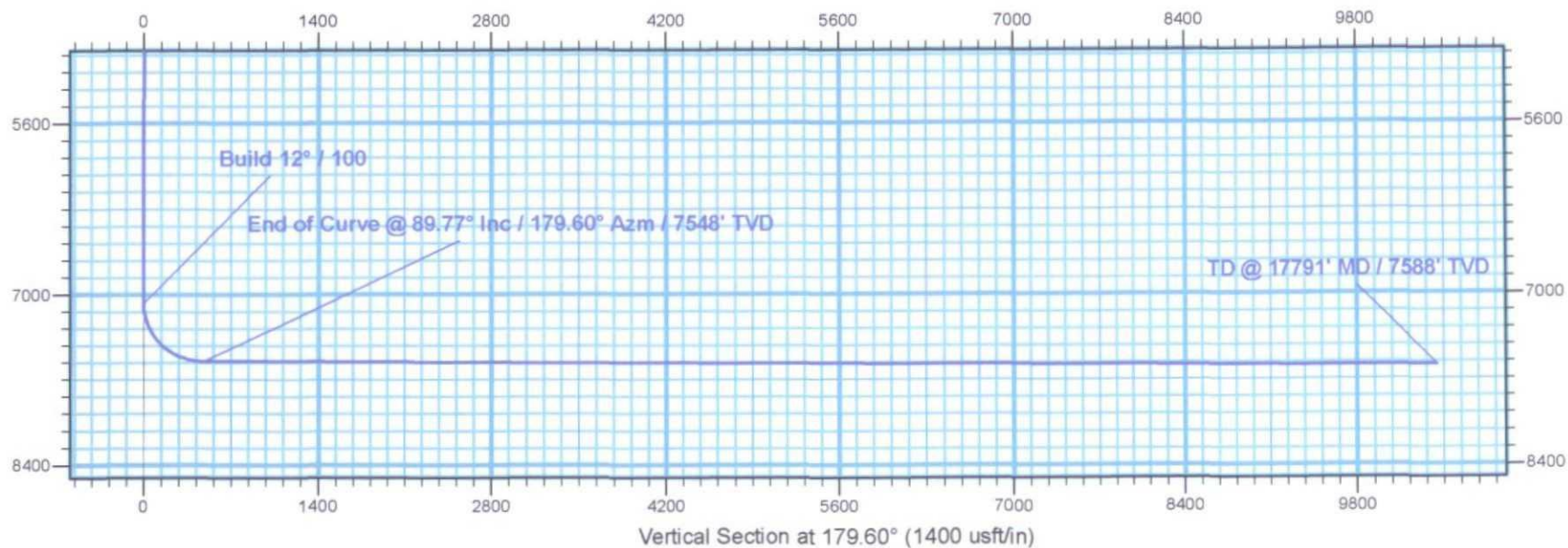
Mewbourne Oil Co

Eddy County, New Mexico
Owl Draw 22 / 27 B2AP Fed Com #1H
Quote 130195
Design #4



Mewbourne Oil Company

Eddy County, New Mexico
Owl Draw 22 / 27 B2AP Fed Com #1H
Quote 130195
Design #4



Mewbourne Oil Co

Eddy County, New Mexico

Sec 15, T26,R27E (NEW SHL)

Owl Draw 22 / 27 B2AP Fed Com #1H

Wellbore #1

Plan: Design #4

DDC Well Planning Report

11 March, 2014



DDC
Well Planning Report



Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Well Owl Draw 22 / 27 B2AP Fed Com #1H
Company: Mewbourne Oil Co	TVD Reference: WELL @ 3168.0usft (Patterson)
Project: Eddy County, New Mexico	MD Reference: WELL @ 3168.0usft (Patterson)
Site: Sec 15, T26,R27E (NEW SHL)	North Reference: Grid
Well: Owl Draw 22 / 27 B2AP Fed Com #1H	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: Design #4	

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 15, T26,R27E (NEW SHL)			
Site Position:	Northing:	376,588.30 usft	Latitude: 32° 2' 6.906 N
From: Map	Easting:	550,339.50 usft	Longitude: 104° 10' 15.179 W
Position Uncertainty:	0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.09 °

Well: Owl Draw 22 / 27 B2AP Fed Com #1H			
Well Position	+N/-S	0.0 usft	Northing: 376,588.30 usft
	+E/-W	0.0 usft	Easting: 550,339.50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 3,148.0 usft

Wellbore: Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/12/2013	7.60	59.86	48,239

Design: Design #4				
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	179.60

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	
7,070.5	0.00	0.00	7,070.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,818.6	89.77	179.60	7,548.0	-475.5	3.3	12.00	12.00	24.01	179.60	
17,790.7	89.77	179.60	7,588.0	-10,447.3	73.1	0.00	0.00	0.00	0.00	PBHL Owl Draw 22 /

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 15, T26,R27E (NEW SHL)
Well: Owl Draw 22 / 27 B2AP Fed Com #1H
Wellbore: Wellbore #1
Design: Design #4

Local Co-ordinate Reference: Well Owl Draw 22 / 27 B2AP Fed Com #1H
TVD Reference: WELL @ 3168.0usft (Patterson)
MD Reference: WELL @ 3168.0usft (Patterson)
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)
Build 12° / 100									
7,070.5	0.00	0.00	7,070.5	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	3.54	179.60	7,100.0	-0.9	0.0	0.9	12.00	12.00	0.00
7,200.0	15.54	179.60	7,198.4	-17.5	0.1	17.5	12.00	12.00	0.00
7,300.0	27.54	179.60	7,291.3	-54.1	0.4	54.1	12.00	12.00	0.00
7,400.0	39.54	179.60	7,374.5	-109.3	0.8	109.3	12.00	12.00	0.00
7,500.0	51.54	179.60	7,444.4	-180.5	1.3	180.5	12.00	12.00	0.00
7,600.0	63.54	179.60	7,497.9	-264.7	1.9	264.7	12.00	12.00	0.00
7,700.0	75.54	179.60	7,532.8	-358.2	2.5	358.2	12.00	12.00	0.00
7,800.0	87.54	179.60	7,547.5	-457.0	3.2	457.0	12.00	12.00	0.00
End of Curve @ 89.77° Inc / 179.60° Azm / 7548' TVD									
7,818.6	89.77	179.60	7,548.0	-475.5	3.3	475.5	12.00	12.00	0.00
7,900.0	89.77	179.60	7,548.3	-557.0	3.9	557.0	0.00	0.00	0.00
8,000.0	89.77	179.60	7,548.7	-656.9	4.6	657.0	0.00	0.00	0.00
8,100.0	89.77	179.60	7,549.1	-756.9	5.3	757.0	0.00	0.00	0.00
8,200.0	89.77	179.60	7,549.5	-856.9	6.0	857.0	0.00	0.00	0.00
8,300.0	89.77	179.60	7,549.9	-956.9	6.7	957.0	0.00	0.00	0.00
8,400.0	89.77	179.60	7,550.3	-1,056.9	7.4	1,057.0	0.00	0.00	0.00
8,500.0	89.77	179.60	7,550.7	-1,156.9	8.1	1,157.0	0.00	0.00	0.00
8,600.0	89.77	179.60	7,551.1	-1,256.9	8.8	1,257.0	0.00	0.00	0.00
8,700.0	89.77	179.60	7,551.5	-1,356.9	9.5	1,357.0	0.00	0.00	0.00
8,800.0	89.77	179.60	7,551.9	-1,456.9	10.2	1,457.0	0.00	0.00	0.00
8,900.0	89.77	179.60	7,552.3	-1,556.9	10.9	1,557.0	0.00	0.00	0.00
9,000.0	89.77	179.60	7,552.7	-1,656.9	11.6	1,657.0	0.00	0.00	0.00
9,100.0	89.77	179.60	7,553.1	-1,756.9	12.3	1,757.0	0.00	0.00	0.00
9,200.0	89.77	179.60	7,553.5	-1,856.9	13.0	1,857.0	0.00	0.00	0.00
9,300.0	89.77	179.60	7,553.9	-1,956.9	13.7	1,957.0	0.00	0.00	0.00
9,400.0	89.77	179.60	7,554.3	-2,056.9	14.4	2,057.0	0.00	0.00	0.00
9,500.0	89.77	179.60	7,554.7	-2,156.9	15.1	2,157.0	0.00	0.00	0.00
9,600.0	89.77	179.60	7,555.1	-2,256.9	15.8	2,257.0	0.00	0.00	0.00
9,700.0	89.77	179.60	7,555.5	-2,356.9	16.5	2,356.9	0.00	0.00	0.00
9,800.0	89.77	179.60	7,555.9	-2,456.9	17.2	2,456.9	0.00	0.00	0.00
9,900.0	89.77	179.60	7,556.3	-2,556.9	17.9	2,556.9	0.00	0.00	0.00
10,000.0	89.77	179.60	7,556.7	-2,656.9	18.6	2,656.9	0.00	0.00	0.00
10,100.0	89.77	179.60	7,557.1	-2,756.9	19.3	2,756.9	0.00	0.00	0.00
10,200.0	89.77	179.60	7,557.5	-2,856.9	20.0	2,856.9	0.00	0.00	0.00
10,300.0	89.77	179.60	7,557.9	-2,956.9	20.7	2,956.9	0.00	0.00	0.00
10,400.0	89.77	179.60	7,558.3	-3,056.9	21.4	3,056.9	0.00	0.00	0.00
10,500.0	89.77	179.60	7,558.7	-3,156.9	22.1	3,156.9	0.00	0.00	0.00
10,600.0	89.77	179.60	7,559.1	-3,256.9	22.8	3,256.9	0.00	0.00	0.00
10,700.0	89.77	179.60	7,559.5	-3,356.9	23.5	3,356.9	0.00	0.00	0.00
10,800.0	89.77	179.60	7,559.9	-3,456.9	24.2	3,456.9	0.00	0.00	0.00
10,900.0	89.77	179.60	7,560.3	-3,556.9	24.9	3,556.9	0.00	0.00	0.00
11,000.0	89.77	179.60	7,560.7	-3,656.8	25.6	3,656.9	0.00	0.00	0.00
11,100.0	89.77	179.60	7,561.1	-3,756.8	26.3	3,756.9	0.00	0.00	0.00
11,200.0	89.77	179.60	7,561.5	-3,856.8	27.0	3,856.9	0.00	0.00	0.00
11,300.0	89.77	179.60	7,561.9	-3,956.8	27.7	3,956.9	0.00	0.00	0.00
11,400.0	89.77	179.60	7,562.3	-4,056.8	28.4	4,056.9	0.00	0.00	0.00
11,500.0	89.77	179.60	7,562.7	-4,156.8	29.1	4,156.9	0.00	0.00	0.00
11,600.0	89.77	179.60	7,563.1	-4,256.8	29.8	4,256.9	0.00	0.00	0.00
11,700.0	89.77	179.60	7,563.5	-4,356.8	30.5	4,356.9	0.00	0.00	0.00
11,800.0	89.77	179.60	7,563.9	-4,456.8	31.2	4,456.9	0.00	0.00	0.00
11,900.0	89.77	179.60	7,564.3	-4,556.8	31.9	4,556.9	0.00	0.00	0.00
12,000.0	89.77	179.60	7,564.7	-4,656.8	32.6	4,656.9	0.00	0.00	0.00

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 15, T26,R27E (NEW SHL)
Well: Owl Draw 22 / 27 B2AP Fed Com #1H
Wellbore: Wellbore #1
Design: Design #4

Local Co-ordinate Reference: Well Owl Draw 22 / 27 B2AP Fed Com #1H
TVD Reference: WELL @ 3168.0usft (Patterson)
MD Reference: WELL @ 3168.0usft (Patterson)
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)
12,100.0	89.77	179.60	7,565.2	-4,756.8	33.3	4,756.9	0.00	0.00	0.00
12,200.0	89.77	179.60	7,565.6	-4,856.8	34.0	4,856.9	0.00	0.00	0.00
12,300.0	89.77	179.60	7,566.0	-4,956.8	34.7	4,956.9	0.00	0.00	0.00
12,400.0	89.77	179.60	7,566.4	-5,056.8	35.4	5,056.9	0.00	0.00	0.00
12,500.0	89.77	179.60	7,566.8	-5,156.8	36.1	5,156.9	0.00	0.00	0.00
12,600.0	89.77	179.60	7,567.2	-5,256.8	36.8	5,256.9	0.00	0.00	0.00
12,700.0	89.77	179.60	7,567.6	-5,356.8	37.5	5,356.9	0.00	0.00	0.00
12,800.0	89.77	179.60	7,568.0	-5,456.8	38.2	5,456.9	0.00	0.00	0.00
12,900.0	89.77	179.60	7,568.4	-5,556.8	38.9	5,556.9	0.00	0.00	0.00
13,000.0	89.77	179.60	7,568.8	-5,656.8	39.6	5,656.9	0.00	0.00	0.00
13,100.0	89.77	179.60	7,569.2	-5,756.8	40.3	5,756.9	0.00	0.00	0.00
13,200.0	89.77	179.60	7,569.6	-5,856.8	41.0	5,856.9	0.00	0.00	0.00
13,300.0	89.77	179.60	7,570.0	-5,956.8	41.7	5,956.9	0.00	0.00	0.00
13,400.0	89.77	179.60	7,570.4	-6,056.8	42.4	6,056.9	0.00	0.00	0.00
13,500.0	89.77	179.60	7,570.8	-6,156.8	43.1	6,156.9	0.00	0.00	0.00
13,600.0	89.77	179.60	7,571.2	-6,256.8	43.8	6,256.9	0.00	0.00	0.00
13,700.0	89.77	179.60	7,571.6	-6,356.8	44.5	6,356.9	0.00	0.00	0.00
13,800.0	89.77	179.60	7,572.0	-6,456.8	45.2	6,456.9	0.00	0.00	0.00
13,900.0	89.77	179.60	7,572.4	-6,556.8	45.9	6,556.9	0.00	0.00	0.00
14,000.0	89.77	179.60	7,572.8	-6,656.8	46.6	6,656.9	0.00	0.00	0.00
14,100.0	89.77	179.60	7,573.2	-6,756.7	47.3	6,756.9	0.00	0.00	0.00
14,200.0	89.77	179.60	7,573.6	-6,856.7	48.0	6,856.9	0.00	0.00	0.00
14,300.0	89.77	179.60	7,574.0	-6,956.7	48.7	6,956.9	0.00	0.00	0.00
14,400.0	89.77	179.60	7,574.4	-7,056.7	49.4	7,056.9	0.00	0.00	0.00
14,500.0	89.77	179.60	7,574.8	-7,156.7	50.1	7,156.9	0.00	0.00	0.00
14,600.0	89.77	179.60	7,575.2	-7,256.7	50.8	7,256.9	0.00	0.00	0.00
14,700.0	89.77	179.60	7,575.6	-7,356.7	51.5	7,356.9	0.00	0.00	0.00
14,800.0	89.77	179.60	7,576.0	-7,456.7	52.2	7,456.9	0.00	0.00	0.00
14,900.0	89.77	179.60	7,576.4	-7,556.7	52.9	7,556.9	0.00	0.00	0.00
15,000.0	89.77	179.60	7,576.8	-7,656.7	53.6	7,656.9	0.00	0.00	0.00
15,100.0	89.77	179.60	7,577.2	-7,756.7	54.3	7,756.9	0.00	0.00	0.00
15,200.0	89.77	179.60	7,577.6	-7,856.7	55.0	7,856.9	0.00	0.00	0.00
15,300.0	89.77	179.60	7,578.0	-7,956.7	55.7	7,956.9	0.00	0.00	0.00
15,400.0	89.77	179.60	7,578.4	-8,056.7	56.4	8,056.9	0.00	0.00	0.00
15,500.0	89.77	179.60	7,578.8	-8,156.7	57.1	8,156.9	0.00	0.00	0.00
15,600.0	89.77	179.60	7,579.2	-8,256.7	57.8	8,256.9	0.00	0.00	0.00
15,700.0	89.77	179.60	7,579.6	-8,356.7	58.5	8,356.9	0.00	0.00	0.00
15,800.0	89.77	179.60	7,580.0	-8,456.7	59.2	8,456.9	0.00	0.00	0.00
15,900.0	89.77	179.60	7,580.4	-8,556.7	59.9	8,556.9	0.00	0.00	0.00
16,000.0	89.77	179.60	7,580.8	-8,656.7	60.6	8,656.9	0.00	0.00	0.00
16,100.0	89.77	179.60	7,581.2	-8,756.7	61.3	8,756.9	0.00	0.00	0.00
16,200.0	89.77	179.60	7,581.6	-8,856.7	62.0	8,856.9	0.00	0.00	0.00
16,300.0	89.77	179.60	7,582.0	-8,956.7	62.7	8,956.9	0.00	0.00	0.00
16,400.0	89.77	179.60	7,582.4	-9,056.7	63.4	9,056.9	0.00	0.00	0.00
16,500.0	89.77	179.60	7,582.8	-9,156.7	64.1	9,156.9	0.00	0.00	0.00
16,600.0	89.77	179.60	7,583.2	-9,256.7	64.8	9,256.9	0.00	0.00	0.00
16,700.0	89.77	179.60	7,583.6	-9,356.7	65.5	9,356.9	0.00	0.00	0.00
16,800.0	89.77	179.60	7,584.0	-9,456.7	66.2	9,456.9	0.00	0.00	0.00
16,900.0	89.77	179.60	7,584.4	-9,556.7	66.9	9,556.9	0.00	0.00	0.00
17,000.0	89.77	179.60	7,584.8	-9,656.7	67.6	9,656.9	0.00	0.00	0.00
17,100.0	89.77	179.60	7,585.2	-9,756.7	68.3	9,756.9	0.00	0.00	0.00
17,200.0	89.77	179.60	7,585.6	-9,856.6	69.0	9,856.9	0.00	0.00	0.00
17,300.0	89.77	179.60	7,586.0	-9,956.6	69.7	9,956.9	0.00	0.00	0.00
17,400.0	89.77	179.60	7,586.4	-10,056.6	70.4	10,056.9	0.00	0.00	0.00

DDC
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Owl Draw 22 / 27 B2AP Fed Com #1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3168.0usft (Patterson)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3168.0usft (Patterson)
Site:	Sec 15, T26,R27E (NEW SHL)	North Reference:	Grid
Well:	Owl Draw 22 / 27 B2AP Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
17,500.0	89.77	179.60	7,586.8	-10,156.6	71.1	10,156.9	0.00	0.00	0.00
17,600.0	89.77	179.60	7,587.2	-10,256.6	71.8	10,256.9	0.00	0.00	0.00
17,700.0	89.77	179.60	7,587.6	-10,356.6	72.5	10,356.9	0.00	0.00	0.00
TD @ 17791' MD / 7588' TVD									
17,790.7	89.77	179.60	7,588.0	-10,447.3	73.1	10,447.6	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
- hit/miss target									
- Shape									
PBHL Owl Draw 22 / 27	0.00	0.00	7,508.0	-10,447.3	73.1	366,141.00	550,412.60	32° 0' 23.512 N	104° 10' 14.512 W
- plan misses target center by 80.0usft at 17790.4usft MD (7588.0 TVD, -10447.0 N, 73.1 E)									
- Point									
PBHL Owl Draw 22 / 27	0.00	0.00	7,588.0	-10,447.3	73.1	366,141.00	550,412.60	32° 0' 23.512 N	104° 10' 14.512 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,070.5	7,070.5	0.0	0.0	Build 12° / 100
7,818.6	7,548.0	-475.5	3.3	End of Curve @ 89.77° Inc / 179.60° Azm / 7548' TVD
17,790.7	7,588.0	-10,447.3	73.1	TD @ 17791' MD / 7588' TVD