

Mewbourne Oil Company

Lea County, New Mexico

El Mar 21 A1DM Fed Com #4H

Sec 21, T26S, R33E

SL: 175' FNL & 450' FWL

BHL: 330' FSL & 330' FWL

Plan: Design #1

Standard Planning Report

13 April, 2015

DEC 21 2015

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1DM Fed Com #4H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3295.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3295.0usft (Original Well Elev)
Site:	El Mar 21 A1DM Fed Com #4H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL		
Design:	Design #1		

Project	Lea 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	El Mar 21 A1DM Fed Com #4H		
Site Position:		Northing:	377,505.30 usft
From:	Map	Easting:	732,253.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 8.381 N
		Longitude:	103° 35' 1.807 W
		Grid Convergence:	0.40 °

Well	Sec 21, T26S, R33E		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,295.0 usft
		Latitude:	32° 2' 8.381 N
		Longitude:	103° 35' 1.807 W
		Ground Level:	3,275.0 usft

Wellbore	BHL: 330' FSL & 330' FWL		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	4/13/2015	7.11
			Dip Angle
			(°)
			59.91
			Field Strength
			(nT)
			48,120

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			181.01

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	
8,738.0	0.00	0.00	8,738.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,632.1	89.40	181.01	9,311.0	-567.0	-10.0	10.00	10.00	0.00	-178.99	
13,840.6	89.40	181.01	9,355.0	-4,774.5	-84.2	0.00	0.00	0.00	0.00	BHL: 330' FSL & 330

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1DM Fed Com #4H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3295.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3295.0usft (Original Well Elev)
Site:	El Mar 21 A1DM Fed Com #4H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL		
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
SL: 175 FNL & 450 FWL									
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

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1DM Fed Com #4H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3295.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3295.0usft (Original Well Elev)
Site:	El Mar 21 A1DM Fed Com #4H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL 330' FSL & 330' FWL		
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)	
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
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	
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,738.0	0.00	0.00	8,738.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP @ 8738										
8,800.0	6.20	181.01	8,799.9	-3.4	-0.1	3.4	10.00	10.00	0.00	
8,900.0	16.20	181.01	8,897.9	-22.7	-0.4	22.7	10.00	10.00	0.00	
9,000.0	26.20	181.01	8,991.0	-58.9	-1.0	58.9	10.00	10.00	0.00	
9,100.0	36.20	181.01	9,076.4	-110.6	-1.9	110.6	10.00	10.00	0.00	
9,169.7	43.16	181.01	9,130.0	-155.0	-2.7	155.1	10.00	10.00	0.00	
FTP: 330 FNL & 447 FWL										
9,200.0	46.19	181.01	9,151.6	-176.3	-3.1	176.4	10.00	10.00	0.00	
9,300.0	56.19	181.01	9,214.1	-254.2	-4.5	254.2	10.00	10.00	0.00	
9,400.0	66.19	181.01	9,262.3	-341.7	-6.0	341.7	10.00	10.00	0.00	
9,500.0	76.19	181.01	9,294.5	-436.2	-7.7	436.2	10.00	10.00	0.00	
9,600.0	86.19	181.01	9,309.8	-534.9	-9.4	534.9	10.00	10.00	0.00	
9,632.2	89.40	181.01	9,311.0	-567.0	-10.0	567.1	9.98	9.98	0.00	
LP: 742 FNL & 434 FWL										
9,700.0	89.40	181.01	9,311.7	-634.8	-11.2	634.9	0.00	0.00	0.00	
9,800.0	89.40	181.01	9,312.8	-734.8	-13.0	734.9	0.00	0.00	0.00	
9,900.0	89.40	181.01	9,313.8	-834.8	-14.7	834.9	0.00	0.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1DM Fed Com #4H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3295.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3295.0usft (Original Well Elev)
Site:	El Mar 21 A1DM Fed Com #4H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL		
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)
10,000.0	89.40	181.01	9,314.8	-934.8	-16.5	934.9	0.00	0.00	0.00
10,100.0	89.40	181.01	9,315.9	-1,034.7	-18.2	1,034.9	0.00	0.00	0.00
10,200.0	89.40	181.01	9,316.9	-1,134.7	-20.0	1,134.9	0.00	0.00	0.00
10,300.0	89.40	181.01	9,318.0	-1,234.7	-21.8	1,234.9	0.00	0.00	0.00
10,400.0	89.40	181.01	9,319.0	-1,334.7	-23.5	1,334.9	0.00	0.00	0.00
10,500.0	89.40	181.01	9,320.1	-1,434.6	-25.3	1,434.9	0.00	0.00	0.00
10,600.0	89.40	181.01	9,321.1	-1,534.6	-27.1	1,534.9	0.00	0.00	0.00
10,700.0	89.40	181.01	9,322.2	-1,634.6	-28.8	1,634.9	0.00	0.00	0.00
10,800.0	89.40	181.01	9,323.2	-1,734.6	-30.6	1,734.9	0.00	0.00	0.00
10,900.0	89.40	181.01	9,324.3	-1,834.6	-32.4	1,834.8	0.00	0.00	0.00
11,000.0	89.40	181.01	9,325.3	-1,934.5	-34.1	1,934.8	0.00	0.00	0.00
11,100.0	89.40	181.01	9,326.3	-2,034.5	-35.9	2,034.8	0.00	0.00	0.00
11,200.0	89.40	181.01	9,327.4	-2,134.5	-37.6	2,134.8	0.00	0.00	0.00
11,300.0	89.40	181.01	9,328.4	-2,234.5	-39.4	2,234.8	0.00	0.00	0.00
11,400.0	89.40	181.01	9,329.5	-2,334.5	-41.2	2,334.8	0.00	0.00	0.00
11,500.0	89.40	181.01	9,330.5	-2,434.4	-42.9	2,434.8	0.00	0.00	0.00
11,600.0	89.40	181.01	9,331.6	-2,534.4	-44.7	2,534.8	0.00	0.00	0.00
11,700.0	89.40	181.01	9,332.6	-2,634.4	-46.5	2,634.8	0.00	0.00	0.00
11,800.0	89.40	181.01	9,333.7	-2,734.4	-48.2	2,734.8	0.00	0.00	0.00
11,900.0	89.40	181.01	9,334.7	-2,834.4	-50.0	2,834.8	0.00	0.00	0.00
12,000.0	89.40	181.01	9,335.8	-2,934.3	-51.7	2,934.8	0.00	0.00	0.00
12,100.0	89.40	181.01	9,336.8	-3,034.3	-53.5	3,034.8	0.00	0.00	0.00
12,200.0	89.40	181.01	9,337.8	-3,134.3	-55.3	3,134.8	0.00	0.00	0.00
12,300.0	89.40	181.01	9,338.9	-3,234.3	-57.0	3,234.8	0.00	0.00	0.00
12,400.0	89.40	181.01	9,339.9	-3,334.2	-58.8	3,334.8	0.00	0.00	0.00
12,500.0	89.40	181.01	9,341.0	-3,434.2	-60.6	3,434.8	0.00	0.00	0.00
12,600.0	89.40	181.01	9,342.0	-3,534.2	-62.3	3,534.8	0.00	0.00	0.00
12,700.0	89.40	181.01	9,343.1	-3,634.2	-64.1	3,634.7	0.00	0.00	0.00
12,800.0	89.40	181.01	9,344.1	-3,734.2	-65.9	3,734.7	0.00	0.00	0.00
12,900.0	89.40	181.01	9,345.2	-3,834.1	-67.6	3,834.7	0.00	0.00	0.00
13,000.0	89.40	181.01	9,346.2	-3,934.1	-69.4	3,934.7	0.00	0.00	0.00
13,100.0	89.40	181.01	9,347.3	-4,034.1	-71.1	4,034.7	0.00	0.00	0.00
13,200.0	89.40	181.01	9,348.3	-4,134.1	-72.9	4,134.7	0.00	0.00	0.00
13,300.0	89.40	181.01	9,349.3	-4,234.1	-74.7	4,234.7	0.00	0.00	0.00
13,400.0	89.40	181.01	9,350.4	-4,334.0	-76.4	4,334.7	0.00	0.00	0.00
13,500.0	89.40	181.01	9,351.4	-4,434.0	-78.2	4,434.7	0.00	0.00	0.00
13,600.0	89.40	181.01	9,352.5	-4,534.0	-80.0	4,534.7	0.00	0.00	0.00
13,700.0	89.40	181.01	9,353.5	-4,634.0	-81.7	4,634.7	0.00	0.00	0.00
13,800.0	89.40	181.01	9,354.6	-4,734.0	-83.5	4,734.7	0.00	0.00	0.00
13,840.6	89.40	181.01	9,355.0	-4,774.5	-84.2	4,775.2	0.00	0.00	0.00

BHL: 330' FSL & 330' FWL

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1DM Fed Com #4H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3295.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3295.0usft (Original Well Elev)
Site:	El Mar 21 A1DM Fed Com #4H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL		
Design:	Design #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 175 FNL & 450 FWL - plan hits target center - Point	0.00	0.01	0.0	0.0	0.0	377,505.30	732,253.40	32° 2' 8.381 N	103° 35' 1.807 W
KOP @ 8738 - plan hits target center - Point	0.00	0.01	8,738.0	0.0	0.0	377,505.30	732,253.40	32° 2' 8.381 N	103° 35' 1.807 W
FTP: 330 FNL & 447 FV - plan hits target center - Point	0.00	0.00	9,130.0	-155.0	-2.7	377,350.30	732,250.70	32° 2' 6.848 N	103° 35' 1.850 W
LP: 742 FNL & 434 FWL - plan hits target center - Point	0.00	0.00	9,311.0	-567.0	-10.0	376,938.30	732,243.40	32° 2' 2.771 N	103° 35' 1.968 W
BHL: 330' FSL & 330 FV - plan hits target center - Point	0.00	0.00	9,355.0	-4,774.5	-84.2	372,730.80	732,169.20	32° 1' 21.139 N	103° 35' 3.169 W

El Mar 21 A1DM Fed Com #4H

