



30-015-41954

Mewbourne Oil Company .

Eddy County, New Mexico

Section 3/10-20S-25E Long Draw 10 DM Fed Com

Long Draw 10 DM Federal com #2H

Original Hole

Design: Original Hole

Standard Survey Report

24 March, 2014





Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County New Mexico	TVD Reference:	GL 3462' +20 @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' +20 @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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	Section 3/10-20S-25E Long Draw 10 DM Fed Com		
Site Position:		Northing:	580,387.42 usft
From:	Map	Easting:	455,539.09 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 35' 43.827 N
		Longitude:	104° 28' 39.716 W
		Grid Convergence:	-0.08 °

Well	Long Draw 10 DM Federal com #2H		
Well Position	+N-S	0.0 usft	Northing: 580,382.93 usft
	+E-W	0.0 usft	Easting: 455,049.07 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 35' 43.776 N
		Longitude:	104° 28' 45.444 W
		Ground Level:	3,462.0 usft

Wellbore	Original Hole		
-----------------	---------------	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/28/2013	7.74	60.32	48,502

Design	Original Hole		
---------------	---------------	--	--

Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.0	0.0	0.0	181.59

Survey Program		Date	3/24/2014	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	1,925.0	MS Gyro Survey #1 (Original Hole)	GyroFlex	
2,018.0	7,400.0	MWD Survey #2 (Original Hole)	MWD	MWD - Standard

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	1.23	251.43	100.0	-0.3	-1.0	0.4	1.23	1.23	0.00
	200.0	1.21	251.38	200.0	-1.0	-3.0	1.1	0.02	-0.02	-0.05
	300.0	1.32	250.35	299.9	-1.7	-5.1	1.9	0.11	0.11	-1.03
	400.0	0.94	267.94	399.9	-2.2	-7.0	2.4	0.51	-0.38	17.59
	500.0	0.78	296.09	499.9	-1.9	-8.5	2.1	0.45	-0.16	28.15
	600.0	0.78	296.89	599.9	-1.3	-9.7	1.6	0.01	0.00	0.80
	700.0	0.64	306.31	699.9	-0.6	-10.7	0.9	0.18	-0.14	9.42
	800.0	0.68	306.48	799.9	0.0	-11.7	0.3	0.04	0.04	0.17



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County New Mexico	TVD Reference:	GL 3462' + 20 @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' + 20 @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
900.0	0.64	303.18	899.9	0.7	-12.6	-0.3	0.06	-0.04	-3.30
1,000.0	0.60	308.94	999.9	1.3	-13.5	-1.0	0.07	-0.04	5.76
1,100.0	0.59	305.81	1,099.9	2.0	-14.3	-1.6	0.03	-0.01	-3.13
1,200.0	0.14	273.71	1,199.9	2.3	-14.8	-1.9	0.48	-0.45	-32.10
1,300.0	0.31	226.11	1,299.9	2.1	-15.2	-1.7	0.24	0.17	-47.60
1,400.0	0.42	194.37	1,399.9	1.5	-15.4	-1.1	0.23	0.11	-31.74
1,500.0	0.27	182.85	1,499.9	1.0	-15.5	-0.5	0.16	-0.15	-11.52
1,600.0	0.11	177.60	1,599.9	0.6	-15.6	-0.2	0.16	-0.16	-5.25
1,700.0	0.17	262.17	1,699.9	0.5	-15.7	-0.1	0.19	0.06	84.57
1,800.0	0.36	235.11	1,799.9	0.3	-16.1	0.1	0.22	0.19	-27.06
1,900.0	0.42	211.39	1,899.9	-0.2	-16.6	0.6	0.17	0.06	-23.72
1,925.0	0.32	222.12	1,924.9	-0.3	-16.6	0.8	0.48	-0.40	42.92
1925 MD MS Gyro									
2,018.0	1.90	179.00	2,017.8	-2.0	-16.8	2.5	1.81	1.70	-46.37
2,047.0	6.30	168.50	2,046.8	-4.1	-16.5	4.5	15.33	15.17	-36.21
2,079.0	12.80	168.30	2,078.3	-9.3	-15.4	9.7	20.31	20.31	-0.63
2,110.0	18.50	174.80	2,108.1	-17.6	-14.3	17.9	19.21	18.39	20.97
2,142.0	22.70	180.10	2,138.1	-28.8	-13.8	29.2	14.35	13.13	16.56
2,173.0	25.00	181.80	2,166.4	-41.3	-14.0	41.7	7.74	7.42	5.48
2,205.0	26.70	182.20	2,195.2	-55.3	-14.5	55.6	5.34	5.31	1.25
2,236.0	28.80	181.70	2,222.7	-69.7	-15.0	70.1	6.82	6.77	-1.61
2,268.0	31.40	179.70	2,250.4	-85.7	-15.2	86.1	8.71	8.13	-6.25
2,300.0	33.40	178.00	2,277.4	-102.9	-14.8	103.2	6.87	6.25	-5.31
2,331.0	35.30	177.40	2,303.0	-120.3	-14.1	120.7	6.23	6.13	-1.94
2,363.0	38.40	176.90	2,328.6	-139.5	-13.2	139.8	9.73	9.69	-1.56
2,395.0	41.00	177.30	2,353.2	-159.9	-12.1	160.2	8.16	8.13	1.25
2,427.0	44.00	179.00	2,376.8	-181.5	-11.5	181.8	10.04	9.38	5.31
2,459.0	47.10	180.80	2,399.2	-204.4	-11.4	204.6	10.49	9.69	5.63
2,491.0	50.10	181.70	2,420.3	-228.4	-11.9	228.6	9.61	9.38	2.81
2,523.0	52.90	181.80	2,440.3	-253.4	-12.7	253.6	8.75	8.75	0.31
2,554.0	55.80	182.00	2,458.3	-278.6	-13.5	278.8	9.37	9.35	0.65
2,586.0	58.50	181.70	2,475.7	-305.4	-14.4	305.7	8.47	8.44	-0.94
2,617.0	60.90	181.30	2,491.3	-332.2	-15.1	332.5	7.82	7.74	-1.29
2,649.0	64.30	180.30	2,506.1	-360.6	-15.5	360.9	10.98	10.63	-3.13
2,680.0	66.70	179.90	2,518.9	-388.8	-15.6	389.1	7.83	7.74	-1.29
2,712.0	70.10	179.60	2,530.7	-418.5	-15.4	418.8	10.66	10.63	-0.94
2,744.0	74.30	179.40	2,540.5	-449.0	-15.2	449.3	13.14	13.13	-0.63
2,776.0	78.50	179.00	2,548.0	-480.1	-14.7	480.3	13.18	13.13	-1.25
2,812.0	84.50	178.90	2,553.3	-515.7	-14.1	515.9	16.67	16.67	-0.28
2,871.0	91.00	179.70	2,555.6	-574.6	-13.4	574.7	11.10	11.02	1.36
2,903.0	91.00	179.40	2,555.1	-606.6	-13.1	606.7	0.94	0.00	-0.94
2,934.0	90.90	178.50	2,554.5	-637.6	-12.5	637.7	2.92	-0.32	-2.90



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County New Mexico	TVD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
2,966.0	90.80	178.90	2,554.1	-669.6	-11.8	669.6	1.29	-0.31	1.25
2,997.0	90.10	179.20	2,553.8	-700.6	-11.3	700.6	2.46	-2.26	0.97
3,029.0	90.00	179.60	2,553.8	-732.6	-11.0	732.6	1.29	-0.31	1.25
3,061.0	90.20	179.60	2,553.7	-764.6	-10.7	764.6	0.63	0.63	0.00
3,092.0	89.60	180.60	2,553.8	-795.6	-10.8	795.6	3.76	-1.94	3.23
3,124.0	89.70	180.30	2,554.0	-827.6	-11.0	827.5	0.99	0.31	-0.94
3,155.0	89.40	180.60	2,554.2	-858.6	-11.3	858.5	1.37	-0.97	0.97
3,218.0	90.10	181.70	2,554.5	-921.5	-12.5	921.5	2.07	1.11	1.75
3,282.0	90.00	179.90	2,554.5	-985.5	-13.4	985.5	2.82	-0.16	-2.81
3,350.0	89.00	181.00	2,555.1	-1,053.5	-14.0	1,053.5	2.19	-1.47	1.62
3,413.0	88.70	180.80	2,556.3	-1,116.5	-15.0	1,116.5	0.57	-0.48	-0.32
3,476.0	88.70	181.00	2,557.7	-1,179.5	-16.0	1,179.5	0.32	0.00	0.32
3,539.0	88.60	181.10	2,559.2	-1,242.5	-17.1	1,242.5	0.22	-0.16	0.16
3,602.0	89.80	180.80	2,560.1	-1,305.4	-18.2	1,305.4	1.96	1.90	-0.48
3,667.0	90.10	181.30	2,560.2	-1,370.4	-19.3	1,370.4	0.90	0.46	0.77
3,729.0	90.70	181.00	2,559.7	-1,432.4	-20.6	1,432.4	1.08	0.97	-0.48
3,793.0	90.20	180.40	2,559.2	-1,496.4	-21.4	1,496.4	1.22	-0.78	-0.94
3,856.0	90.40	179.60	2,558.9	-1,559.4	-21.4	1,559.4	1.31	0.32	-1.27
3,919.0	90.60	180.10	2,558.4	-1,622.4	-21.2	1,622.4	0.85	0.32	0.79
3,983.0	90.90	180.40	2,557.5	-1,686.4	-21.5	1,686.3	0.66	0.47	0.47
4,046.0	90.00	181.50	2,557.0	-1,749.4	-22.5	1,749.3	2.26	-1.43	1.75
4,110.0	89.30	183.10	2,557.4	-1,813.3	-25.1	1,813.3	2.73	-1.09	2.50
4,173.0	89.10	183.10	2,558.3	-1,876.2	-28.5	1,876.3	0.32	-0.32	0.00
4,236.0	89.40	183.20	2,559.1	-1,939.1	-32.0	1,939.3	0.50	0.48	0.16
4,299.0	90.30	183.60	2,559.3	-2,002.0	-35.7	2,002.2	1.56	1.43	0.63
4,363.0	89.80	182.90	2,559.2	-2,065.9	-39.3	2,066.2	1.34	-0.78	-1.09
4,426.0	90.40	183.60	2,559.1	-2,128.8	-42.9	2,129.2	1.46	0.95	1.11
4,489.0	90.30	183.20	2,558.7	-2,191.7	-46.6	2,192.2	0.65	-0.16	-0.63
4,552.0	90.20	183.10	2,558.5	-2,254.6	-50.1	2,255.1	0.22	-0.16	-0.16
4,616.0	90.10	183.20	2,558.3	-2,318.5	-53.6	2,319.1	0.22	-0.16	0.16
4,680.0	91.00	183.20	2,557.7	-2,382.4	-57.2	2,383.1	1.41	1.41	0.00
4,743.0	91.00	182.20	2,556.6	-2,445.3	-60.2	2,446.1	1.59	0.00	-1.59
4,806.0	90.80	182.90	2,555.6	-2,508.3	-63.0	2,509.0	1.16	-0.32	1.11
4,869.0	91.10	181.30	2,554.5	-2,571.2	-65.3	2,572.0	2.58	0.48	-2.54
4,933.0	90.50	181.30	2,553.6	-2,635.2	-66.7	2,636.0	0.94	-0.94	0.00
4,996.0	90.30	182.00	2,553.2	-2,698.1	-68.5	2,699.0	1.16	-0.32	1.11
5,059.0	89.40	181.00	2,553.4	-2,761.1	-70.2	2,762.0	2.14	-1.43	-1.59
5,122.0	89.50	181.00	2,554.0	-2,824.1	-71.3	2,825.0	0.16	0.16	0.00
5,185.0	89.30	181.30	2,554.6	-2,887.1	-72.5	2,888.0	0.57	-0.32	0.48
5,248.0	89.30	181.00	2,555.4	-2,950.1	-73.8	2,951.0	0.48	0.00	-0.48
5,312.0	89.20	181.50	2,556.2	-3,014.1	-75.2	3,015.0	0.80	-0.16	0.78
5,375.0	89.10	181.40	2,557.2	-3,077.0	-76.8	3,078.0	0.22	-0.16	-0.16
5,437.0	89.40	180.60	2,558.0	-3,139.0	-77.9	3,140.0	1.38	0.48	-1.29



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well-Long Draw, 10 DM Federal com #2H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw, 10 DM Fed Com	MD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Well:	Long Draw, 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

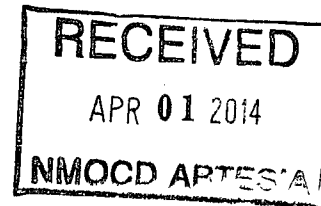
Survey

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)
5,499.0	89.30	181.50	2,558.7	-3,201.0	-79.0	3,202.0	1.46	-0.16	1.45
5,591.0	90.10	181.70	2,559.2	-3,293.0	-81.6	3,294.0	0.90	0.87	0.22
5,685.0	90.10	181.50	2,559.0	-3,386.9	-84.2	3,388.0	0.21	0.00	-0.21
5,777.0	90.50	181.00	2,558.5	-3,478.9	-86.2	3,480.0	0.70	0.43	-0.54
5,870.0	90.70	180.80	2,557.6	-3,571.9	-87.7	3,572.9	0.30	0.22	-0.22
5,962.0	90.60	181.10	2,556.5	-3,663.9	-89.2	3,664.9	0.34	-0.11	0.33
6,054.0	90.70	181.10	2,555.5	-3,755.8	-91.0	3,756.9	0.11	0.11	0.00
6,147.0	90.40	181.70	2,554.6	-3,848.8	-93.2	3,849.9	0.72	-0.32	0.65
6,240.0	89.90	180.60	2,554.3	-3,941.8	-95.1	3,942.9	1.30	-0.54	-1.18
6,332.0	89.80	180.40	2,554.6	-4,033.8	-95.9	4,034.9	0.24	-0.11	-0.22
6,426.0	89.80	181.30	2,554.9	-4,127.8	-97.3	4,128.9	0.96	0.00	0.96
6,519.0	89.80	181.30	2,555.2	-4,220.8	-99.4	4,221.9	0.00	0.00	0.00
6,612.0	89.40	180.60	2,555.9	-4,313.7	-101.0	4,314.9	0.87	-0.43	-0.75
6,705.0	89.30	179.70	2,556.9	-4,406.7	-101.2	4,407.8	0.97	-0.11	-0.97
6,800.0	90.00	181.00	2,557.5	-4,501.7	-101.8	4,502.8	1.55	0.74	1.37
6,895.0	89.90	180.10	2,557.6	-4,596.7	-102.7	4,597.8	0.95	-0.11	-0.95
6,990.0	90.10	181.30	2,557.6	-4,691.7	-103.9	4,692.8	1.28	0.21	1.26
7,085.0	90.00	181.30	2,557.5	-4,786.7	-106.0	4,787.8	0.11	-0.11	0.00
7,180.0	90.00	181.70	2,557.5	-4,881.6	-108.5	4,882.8	0.42	0.00	0.42
7,275.0	89.80	181.10	2,557.7	-4,976.6	-110.8	4,977.8	0.67	-0.21	-0.63
7,354.0	90.00	180.10	2,557.8	-5,055.6	-111.6	5,056.8	1.29	0.25	-1.27
7,400.0	90.20	180.10	2,557.7	-5,101.6	-111.7	5,102.8	0.43	0.43	0.00

7400' MD Projected to Bit

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,925.0	1,924.9	-0.3	-16.6	1925' MD MS Gyro
7,400.0	2,557.7	-5,101.6	-111.7	7400' MD Projected to Bit



Mewbourne Oil Company .

Eddy County, New Mexico

Section 3/10-20S-25E Long Draw 10 DM Fed Com

Long Draw 10 DM Federal com #2H

Original Hole

Design: Original Hole

Survey Report - Geographic

24 March, 2014





Stryker Directional Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3462' +20' @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' +20' @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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:	Section 3/10-20S-25E Long Draw 10 DM Fed Com
-------	--

Site Position:		Northing:	580,387.42 usft	Latitude:	32° 35' 43.827 N
From:	Map	Easting:	455,539.09 usft	Longitude:	104° 28' 39.716 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.08 °

Well	LongiDraw:10 DM Federal com #2H					
Well Position	+N-S	0.0 usft	Northing:	580,382.93 usft	Latitude:	32° 35' 43.776 N
	+E-W	0.0 usft	Easting:	455,049.07 usft	Longitude:	104° 28' 45.444 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,462.0 usft	

Wellbore:	Original Hole
-----------	---------------

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/28/2013	7.74	60.32	48,502

Design:	Original Hole
---------	---------------

Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.0	0.0	0.0	181.59

Survey Program		Date: 3/24/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	1,925.0	MS Gyro Survey #1 (Original Hole)	GyroFlex	
2,018.0	7,400.0	MWD Survey #2 (Original Hole)	MWD	MWD - Standard

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
	0.0	0.00	0.00	0.0	0.0	0.0	580,382.93	455,049.07	32° 35' 43.776 N	104° 28' 45.444 W
	100.0	1.23	251.43	100.0	-0.3	-1.0	580,382.59	455,048.05	32° 35' 43.772 N	104° 28' 45.456 W
	200.0	1.21	251.38	200.0	-1.0	-3.0	580,381.91	455,046.03	32° 35' 43.766 N	104° 28' 45.479 W
	300.0	1.32	250.35	299.9	-1.7	-5.1	580,381.19	455,043.95	32° 35' 43.758 N	104° 28' 45.504 W
	400.0	0.94	267.94	399.9	-2.2	-7.0	580,380.77	455,042.04	32° 35' 43.754 N	104° 28' 45.526 W
	500.0	0.78	296.09	499.9	-1.9	-8.5	580,381.04	455,040.61	32° 35' 43.757 N	104° 28' 45.543 W
	600.0	0.78	296.89	599.9	-1.3	-9.7	580,381.65	455,039.39	32° 35' 43.763 N	104° 28' 45.557 W
	700.0	0.64	306.31	699.9	-0.6	-10.7	580,382.29	455,038.33	32° 35' 43.769 N	104° 28' 45.569 W
	800.0	0.68	306.48	799.9	0.0	-11.7	580,382.97	455,037.41	32° 35' 43.776 N	104° 28' 45.580 W
	900.0	0.64	303.18	899.9	0.7	-12.6	580,383.63	455,036.46	32° 35' 43.783 N	104° 28' 45.591 W



Stryker Directional Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Site:	Section 3/4-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,000.0	0.60	308.94	999.9	1.3	-13.5	580,384.26	455,035.59	32° 35' 43.789 N	104° 28' 45.601 W
1,100.0	0.59	305.81	1,099.9	2.0	-14.3	580,384.89	455,034.76	32° 35' 43.795 N	104° 28' 45.611 W
1,200.0	0.14	273.71	1,199.9	2.3	-14.8	580,385.20	455,034.22	32° 35' 43.798 N	104° 28' 45.617 W
1,300.0	0.31	226.11	1,299.9	2.1	-15.2	580,385.02	455,033.91	32° 35' 43.796 N	104° 28' 45.621 W
1,400.0	0.42	194.37	1,399.9	1.5	-15.4	580,384.48	455,033.62	32° 35' 43.791 N	104° 28' 45.624 W
1,500.0	0.27	182.85	1,499.9	1.0	-15.5	580,383.89	455,033.52	32° 35' 43.785 N	104° 28' 45.625 W
1,600.0	0.11	177.60	1,599.9	0.6	-15.6	580,383.56	455,033.51	32° 35' 43.782 N	104° 28' 45.626 W
1,700.0	0.17	262.17	1,699.9	0.5	-15.7	580,383.44	455,033.37	32° 35' 43.781 N	104° 28' 45.627 W
1,800.0	0.36	235.11	1,799.9	0.3	-16.1	580,383.24	455,032.96	32° 35' 43.779 N	104° 28' 45.632 W
1,900.0	0.42	211.39	1,899.9	-0.2	-16.6	580,382.75	455,032.51	32° 35' 43.774 N	104° 28' 45.637 W
1,925.0	0.32	222.12	1,924.9	-0.3	-16.6	580,382.62	455,032.42	32° 35' 43.772 N	104° 28' 45.638 W
1925' MD MS Gyro									
2,018.0	1.90	179.00	2,017.8	-2.0	-16.8	580,380.89	455,032.27	32° 35' 43.755 N	104° 28' 45.640 W
2,047.0	6.30	168.50	2,046.8	-4.1	-16.5	580,378.85	455,032.60	32° 35' 43.735 N	104° 28' 45.636 W
2,079.0	12.80	168.30	2,078.3	-9.3	-15.4	580,373.65	455,033.67	32° 35' 43.684 N	104° 28' 45.624 W
2,110.0	18.50	174.80	2,108.1	-17.6	-14.3	580,365.38	455,034.81	32° 35' 43.602 N	104° 28' 45.610 W
2,142.0	22.70	180.10	2,138.1	-28.8	-13.8	580,354.14	455,035.26	32° 35' 43.491 N	104° 28' 45.605 W
2,173.0	25.00	181.80	2,166.4	-41.3	-14.0	580,341.61	455,035.05	32° 35' 43.367 N	104° 28' 45.607 W
2,205.0	26.70	182.20	2,195.2	-55.3	-14.5	580,327.67	455,034.56	32° 35' 43.229 N	104° 28' 45.612 W
2,236.0	28.80	181.70	2,222.7	-69.7	-15.0	580,313.24	455,034.07	32° 35' 43.086 N	104° 28' 45.618 W
2,268.0	31.40	179.70	2,250.4	-85.7	-15.2	580,297.20	455,033.88	32° 35' 42.927 N	104° 28' 45.620 W
2,300.0	33.40	178.00	2,277.4	-102.9	-14.8	580,280.06	455,034.23	32° 35' 42.758 N	104° 28' 45.615 W
2,331.0	35.30	177.40	2,303.0	-120.3	-14.1	580,262.58	455,034.94	32° 35' 42.585 N	104° 28' 45.607 W
2,363.0	38.40	176.90	2,328.6	-139.5	-13.2	580,243.42	455,035.90	32° 35' 42.395 N	104° 28' 45.595 W
2,395.0	41.00	177.30	2,353.2	-159.9	-12.1	580,223.01	455,036.93	32° 35' 42.193 N	104° 28' 45.583 W
2,427.0	44.00	179.00	2,376.8	-181.5	-11.5	580,201.40	455,037.62	32° 35' 41.979 N	104° 28' 45.575 W
2,459.0	47.10	180.80	2,399.2	-204.4	-11.4	580,178.56	455,037.65	32° 35' 41.753 N	104° 28' 45.574 W
2,491.0	50.10	181.70	2,420.3	-228.4	-11.9	580,154.57	455,037.12	32° 35' 41.516 N	104° 28' 45.580 W
2,523.0	52.90	181.80	2,440.3	-253.4	-12.7	580,129.54	455,036.35	32° 35' 41.268 N	104° 28' 45.588 W
2,554.0	55.80	182.00	2,458.3	-278.6	-13.5	580,104.37	455,035.52	32° 35' 41.019 N	104° 28' 45.598 W
2,586.0	58.50	181.70	2,475.7	-305.4	-14.4	580,077.50	455,034.65	32° 35' 40.753 N	104° 28' 45.607 W
2,617.0	60.90	181.30	2,491.3	-332.2	-15.1	580,050.75	455,033.95	32° 35' 40.488 N	104° 28' 45.615 W
2,649.0	64.30	180.30	2,506.1	-360.6	-15.5	580,022.34	455,033.56	32° 35' 40.207 N	104° 28' 45.619 W
2,680.0	66.70	179.90	2,518.9	-388.8	-15.6	579,994.14	455,033.51	32° 35' 39.928 N	104° 28' 45.619 W
2,712.0	70.10	179.60	2,530.7	-418.5	-15.4	579,964.39	455,033.64	32° 35' 39.634 N	104° 28' 45.617 W
2,744.0	74.30	179.40	2,540.5	-449.0	-15.2	579,933.93	455,033.91	32° 35' 39.332 N	104° 28' 45.614 W
2,776.0	78.50	179.00	2,548.0	-480.1	-14.7	579,902.84	455,034.34	32° 35' 39.025 N	104° 28' 45.608 W
2,812.0	84.50	178.90	2,553.3	-515.7	-14.1	579,867.25	455,034.99	32° 35' 38.673 N	104° 28' 45.600 W
2,871.0	91.00	179.70	2,555.6	-574.6	-13.4	579,808.33	455,035.71	32° 35' 38.090 N	104° 28' 45.591 W
2,903.0	91.00	179.40	2,555.1	-606.6	-13.1	579,776.34	455,035.97	32° 35' 37.773 N	104° 28' 45.587 W
2,934.0	90.90	178.50	2,554.5	-637.6	-12.5	579,745.35	455,036.53	32° 35' 37.466 N	104° 28' 45.580 W
2,966.0	90.80	178.90	2,554.1	-669.6	-11.8	579,713.36	455,037.26	32° 35' 37.150 N	104° 28' 45.571 W
2,997.0	90.10	179.20	2,553.8	-700.6	-11.3	579,682.37	455,037.77	32° 35' 36.843 N	104° 28' 45.565 W
3,029.0	90.00	179.60	2,553.8	-732.6	-11.0	579,650.37	455,038.11	32° 35' 36.526 N	104° 28' 45.560 W
3,061.0	90.20	179.60	2,553.7	-764.6	-10.7	579,618.37	455,038.33	32° 35' 36.210 N	104° 28' 45.557 W
3,092.0	89.60	180.60	2,553.8	-795.6	-10.8	579,587.37	455,038.28	32° 35' 35.903 N	104° 28' 45.557 W
3,124.0	89.70	180.30	2,554.0	-827.6	-11.0	579,555.37	455,038.03	32° 35' 35.586 N	104° 28' 45.560 W
3,155.0	89.40	180.60	2,554.2	-858.6	-11.3	579,524.37	455,037.78	32° 35' 35.280 N	104° 28' 45.562 W
3,218.0	90.10	181.70	2,554.5	-921.5	-12.5	579,461.39	455,036.52	32° 35' 34.656 N	104° 28' 45.576 W
3,282.0	90.00	179.90	2,554.5	-985.5	-13.4	579,397.40	455,035.62	32° 35' 34.023 N	104° 28' 45.585 W
3,350.0	89.00	181.00	2,555.1	-1,053.5	-14.0	579,329.40	455,035.09	32° 35' 33.350 N	104° 28' 45.590 W
3,413.0	88.70	180.80	2,556.3	-1,116.5	-15.0	579,266.43	455,034.10	32° 35' 32.727 N	104° 28' 45.601 W
3,476.0	88.70	181.00	2,557.7	-1,179.5	-16.0	579,203.45	455,033.11	32° 35' 32.104 N	104° 28' 45.611 W
3,539.0	88.60	181.10	2,559.2	-1,242.5	-17.1	579,140.48	455,031.96	32° 35' 31.481 N	104° 28' 45.624 W



Stryker Directional Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw-10, DM Federal com #2H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3462' + 20 @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' + 20 @ 3482.0usft (Patterson #41)
Well:	Long Draw-10, DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,602.0	89.80	180.80	2,560.1	-1,305.4	-18.2	579,077.49	455,030.91	32° 35' 30.857 N	104° 28' 45.635 W	
3,667.0	90.10	181.30	2,560.2	-1,370.4	-19.3	579,012.50	455,029.72	32° 35' 30.214 N	104° 28' 45.648 W	
3,729.0	90.70	181.00	2,559.7	-1,432.4	-20.6	578,950.52	455,028.48	32° 35' 29.601 N	104° 28' 45.661 W	
3,793.0	90.20	180.40	2,559.2	-1,496.4	-21.4	578,886.53	455,027.70	32° 35' 28.967 N	104° 28' 45.670 W	
3,856.0	90.40	179.60	2,558.9	-1,559.4	-21.4	578,823.53	455,027.70	32° 35' 28.344 N	104° 28' 45.669 W	
3,919.0	90.60	180.10	2,558.4	-1,622.4	-21.2	578,760.53	455,027.86	32° 35' 27.721 N	104° 28' 45.666 W	
3,983.0	90.90	180.40	2,557.5	-1,686.4	-21.5	578,696.54	455,027.58	32° 35' 27.087 N	104° 28' 45.668 W	
4,046.0	90.00	181.50	2,557.0	-1,749.4	-22.5	578,633.55	455,026.54	32° 35' 26.464 N	104° 28' 45.679 W	
4,110.0	89.30	183.10	2,557.4	-1,813.3	-25.1	578,569.60	455,023.97	32° 35' 25.831 N	104° 28' 45.708 W	
4,173.0	89.10	183.10	2,558.3	-1,876.2	-28.5	578,506.70	455,020.56	32° 35' 25.209 N	104° 28' 45.747 W	
4,236.0	89.40	183.20	2,559.1	-1,939.1	-32.0	578,443.80	455,017.10	32° 35' 24.586 N	104° 28' 45.786 W	
4,299.0	90.30	183.60	2,559.3	-2,002.0	-35.7	578,380.92	455,013.36	32° 35' 23.964 N	104° 28' 45.829 W	
4,363.0	89.80	182.90	2,559.2	-2,065.9	-39.3	578,317.02	455,009.74	32° 35' 23.331 N	104° 28' 45.870 W	
4,426.0	90.40	183.60	2,559.1	-2,128.8	-42.9	578,254.12	455,006.16	32° 35' 22.709 N	104° 28' 45.911 W	
4,489.0	90.30	183.20	2,558.7	-2,191.7	-46.6	578,191.23	455,002.43	32° 35' 22.087 N	104° 28' 45.954 W	
4,552.0	90.20	183.10	2,558.5	-2,254.6	-50.1	578,128.33	454,998.97	32° 35' 21.464 N	104° 28' 45.993 W	
4,616.0	90.10	183.20	2,558.3	-2,318.5	-53.6	578,064.43	454,995.45	32° 35' 20.832 N	104° 28' 46.033 W	
4,680.0	91.00	183.20	2,557.7	-2,382.4	-57.2	578,000.53	454,991.88	32° 35' 20.199 N	104° 28' 46.074 W	
4,743.0	91.00	182.20	2,556.6	-2,445.3	-60.2	577,937.61	454,988.91	32° 35' 19.577 N	104° 28' 46.108 W	
4,806.0	90.80	182.90	2,555.6	-2,508.3	-63.0	577,874.68	454,986.11	32° 35' 18.954 N	104° 28' 46.139 W	
4,869.0	91.10	181.30	2,554.5	-2,571.2	-65.3	577,811.73	454,983.80	32° 35' 18.331 N	104° 28' 46.165 W	
4,933.0	90.50	181.30	2,553.6	-2,635.2	-66.7	577,747.76	454,982.35	32° 35' 17.698 N	104° 28' 46.181 W	
4,996.0	90.30	182.00	2,553.2	-2,698.1	-68.5	577,684.78	454,980.53	32° 35' 17.075 N	104° 28' 46.201 W	
5,059.0	89.40	181.00	2,553.4	-2,761.1	-70.2	577,621.81	454,978.88	32° 35' 16.451 N	104° 28' 46.220 W	
5,122.0	89.50	181.00	2,554.0	-2,824.1	-71.3	577,558.82	454,977.79	32° 35' 15.828 N	104° 28' 46.232 W	
5,185.0	89.30	181.30	2,554.6	-2,887.1	-72.5	577,495.84	454,976.52	32° 35' 15.205 N	104° 28' 46.245 W	
5,248.0	89.30	181.00	2,555.4	-2,950.1	-73.8	577,432.85	454,975.26	32° 35' 14.581 N	104° 28' 46.259 W	
5,312.0	89.20	181.50	2,556.2	-3,014.1	-75.2	577,368.87	454,973.86	32° 35' 13.948 N	104° 28' 46.274 W	
5,375.0	89.10	181.40	2,557.2	-3,077.0	-76.8	577,305.90	454,972.27	32° 35' 13.325 N	104° 28' 46.292 W	
5,437.0	89.40	180.60	2,558.0	-3,139.0	-77.9	577,243.92	454,971.18	32° 35' 12.712 N	104° 28' 46.304 W	
5,499.0	89.30	181.50	2,558.7	-3,201.0	-79.0	577,181.93	454,970.05	32° 35' 12.098 N	104° 28' 46.316 W	
5,591.0	90.10	181.70	2,559.2	-3,293.0	-81.6	577,089.97	454,967.48	32° 35' 11.188 N	104° 28' 46.345 W	
5,685.0	90.10	181.50	2,559.0	-3,386.9	-84.2	576,996.01	454,964.86	32° 35' 10.258 N	104° 28' 46.374 W	
5,777.0	90.50	181.00	2,558.5	-3,478.9	-86.2	576,904.03	454,962.85	32° 35' 9.348 N	104° 28' 46.396 W	
5,870.0	90.70	180.80	2,557.6	-3,571.9	-87.7	576,811.05	454,961.39	32° 35' 8.428 N	104° 28' 46.411 W	
5,962.0	90.60	181.10	2,556.5	-3,663.9	-89.2	576,719.07	454,959.86	32° 35' 7.518 N	104° 28' 46.428 W	
6,054.0	90.70	181.10	2,555.5	-3,755.8	-91.0	576,627.09	454,958.10	32° 35' 6.608 N	104° 28' 46.447 W	
6,147.0	90.40	181.70	2,554.6	-3,848.8	-93.2	576,534.12	454,955.82	32° 35' 5.688 N	104° 28' 46.472 W	
6,240.0	89.90	180.60	2,554.3	-3,941.8	-95.1	576,441.14	454,953.96	32° 35' 4.767 N	104° 28' 46.492 W	
6,332.0	89.80	180.40	2,554.6	-4,033.8	-95.9	576,349.15	454,953.15	32° 35' 3.857 N	104° 28' 46.500 W	
6,426.0	89.80	181.30	2,554.9	-4,127.8	-97.3	576,255.16	454,951.76	32° 35' 2.927 N	104° 28' 46.515 W	
6,519.0	89.80	181.30	2,555.2	-4,220.8	-99.4	576,162.18	454,949.65	32° 35' 2.007 N	104° 28' 46.538 W	
6,612.0	89.40	180.60	2,555.9	-4,313.7	-101.0	576,069.20	454,948.11	32° 35' 1.087 N	104° 28' 46.555 W	
6,705.0	89.30	179.70	2,556.9	-4,406.7	-101.2	575,976.21	454,947.87	32° 35' 0.166 N	104° 28' 46.556 W	
6,800.0	90.00	181.00	2,557.5	-4,501.7	-101.8	575,881.21	454,947.28	32° 34' 59.226 N	104° 28' 46.561 W	
6,895.0	89.90	180.10	2,557.6	-4,596.7	-102.7	575,786.22	454,946.37	32° 34' 58.286 N	104° 28' 46.570 W	
6,990.0	90.10	181.30	2,557.6	-4,691.7	-103.9	575,691.23	454,945.21	32° 34' 57.346 N	104° 28' 46.582 W	
7,085.0	90.00	181.30	2,557.5	-4,786.7	-106.0	575,596.25	454,943.06	32° 34' 56.406 N	104° 28' 46.606 W	
7,180.0	90.00	181.70	2,557.5	-4,881.6	-108.5	575,501.28	454,940.57	32° 34' 55.467 N	104° 28' 46.634 W	
7,275.0	89.80	181.10	2,557.7	-4,976.6	-110.8	575,406.31	454,938.25	32° 34' 54.527 N	104° 28' 46.659 W	
7,354.0	90.00	180.10	2,557.8	-5,055.6	-111.6	575,327.32	454,937.42	32° 34' 53.745 N	104° 28' 46.668 W	
7,400.0	90.20	180.10	2,557.7	-5,101.6	-111.7	575,281.32	454,937.34	32° 34' 53.290 N	104° 28' 46.668 W	

7400 MD Projected to Bit



Stryker Directional Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Long Draw 10 DM Federal com #2H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Site:	Section 3/10-20S-25E Long Draw 10 DM Fed Com	MD Reference:	GL 3462' + 20' @ 3482.0usft (Patterson #41)
Well:	Long Draw 10 DM Federal com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM-5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,925.0	1,924.9	-0.3	-16.6	1925' MD MS Gyro
7,400.0	2,557.7	-5,101.6	-111.7	7400' MD Projected to Bit



COMPANY: Mewbourne Oil Company
 WELL: Long Draw 10 DM Federal com #2H
 COUNTY: Eddy County, New Mexico
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson #41



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.82°

OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico East 3001
 GL 3462' + 20 @ 3482.0usft (Patterson #41)
 GROUND ELEVATION: 3462.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	580382.93	455049.07	32° 35' 43.776 N	104° 28' 45.444 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSeet	Target
1	1925.0	0.32	222.12	1924.9	-0.3	-16.8	0.00	0.00	0.8	
2	2094.2	0.32	222.12	2094.1	-1.0	-17.3	0.00	0.00	1.5	
3	2822.4	89.99	179.29	2557.0	-465.8	-13.2	12.33	-42.83	466.0	
4	2836.8	89.99	179.29	2557.0	-480.1	-13.1	0.00	0.00	480.3	LP Long Draw 10 DM Federal Com #2H
5	3073.8	90.00	181.66	2557.0	-717.1	-15.0	1.00	89.80	717.3	
6	7467.7	90.00	181.66	2557.0	-5109.2	-142.0	0.00	0.00	5111.2	PBHL Long Draw 10 DM Federal Com #2H

