

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 13 2014

15-42526

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Mewbourne Oil Company .

Eddy County, New Mexico

Section 27-18S-30E Ursa 27 B2IL Fed Com #1H

Ursa 27 B2IL Fed Com #1H

Original Hole

Design: Original Hole

Standard Survey Report

04 September, 2014

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ursa 27 B2IL Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Site:	Section 27-18S-30E Ursa 27 B2IL Fed Com #1H	MD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Well:	Ursa 27 B2IL Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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 27-18S-30E Ursa 27 B2IL Fed Com #1H		
Site Position:		Northing:	624,026.70 usft
From:	Map	Easting:	618,585.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 42' 53.833 N
		Longitude:	103° 56' 51.987 W
		Grid Convergence:	0.21 °

Well	Ursa 27 B2IL Fed Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 624,026.70 usft
	+E/-W	0.0 usft	Easting: 618,585.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 42' 53.833 N
		Longitude:	103° 56' 51.987 W
		Ground Level:	3,408.0 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	3/3/2014	7.46
			Dip Angle (°)
			60.51
			Field Strength (nT)
			48,599

Design	Original Hole		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			276.48

Survey Program	Date	9/4/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	7,640.0	VES Gyro Survey #1 (Original Hole)	GyroFlex	
7,674.0	13,960.0	Survey #2 (Original Hole)	MWD	MWD v3:standard declination

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.23	64.71	100.0	0.1	0.2	-0.2	0.23	0.23	0.00
200.0	0.36	73.37	200.0	0.3	0.7	-0.6	0.14	0.13	8.66
300.0	0.73	96.94	300.0	0.3	1.6	-1.6	0.43	0.37	23.57
400.0	0.65	93.55	400.0	0.2	2.8	-2.8	0.09	-0.08	-3.39
500.0	0.75	88.09	500.0	0.1	4.0	-4.0	0.12	0.10	-5.46
600.0	0.58	68.06	600.0	0.4	5.1	-5.1	0.29	-0.17	-20.03
700.0	0.59	95.08	700.0	0.5	6.1	-6.0	0.27	0.01	27.02
800.0	0.67	81.17	800.0	0.5	7.2	-7.1	0.17	0.08	-13.91
900.0	0.58	116.68	900.0	0.4	8.2	-8.1	0.39	-0.09	35.51

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Site:	Section 27-18S-30E Ursa 27 B2IL Fed Com #1H	MD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Well:	Ursa 27 B2IL Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
1,000.0	0.50	110.31	1,000.0	0.0	9.1	-9.0	0.10	-0.08	-6.37
1,100.0	0.61	135.31	1,099.9	-0.5	9.9	-9.9	0.26	0.11	25.00
1,200.0	0.56	114.36	1,199.9	-1.1	10.7	-10.8	0.22	-0.05	-20.95
1,300.0	1.04	116.66	1,299.9	-1.7	12.0	-12.1	0.48	0.48	2.30
1,400.0	1.27	101.66	1,399.9	-2.3	13.9	-14.0	0.38	0.23	-15.00
1,500.0	1.67	87.75	1,499.9	-2.5	16.4	-16.6	0.53	0.40	-13.91
1,600.0	1.73	88.51	1,599.8	-2.4	19.4	-19.5	0.06	0.06	0.76
1,700.0	1.37	79.06	1,699.8	-2.1	22.0	-22.1	0.44	-0.36	-9.45
1,800.0	1.31	80.06	1,799.8	-1.7	24.3	-24.4	0.06	-0.06	1.00
1,900.0	1.08	58.12	1,899.7	-1.0	26.3	-26.2	0.51	-0.23	-21.94
2,000.0	1.02	40.65	1,999.7	0.2	27.7	-27.5	0.32	-0.06	-17.47
2,100.0	1.05	29.01	2,099.7	1.6	28.7	-28.3	0.21	0.03	-11.64
2,200.0	1.06	26.14	2,199.7	3.3	29.5	-29.0	0.05	0.01	-2.87
2,300.0	1.19	38.45	2,299.7	4.9	30.6	-29.8	0.27	0.13	12.31
2,400.0	1.14	36.71	2,399.7	6.5	31.8	-30.9	0.06	-0.05	-1.74
2,500.0	0.96	19.82	2,499.6	8.1	32.7	-31.6	0.36	-0.18	-16.89
2,600.0	0.67	357.87	2,599.6	9.5	33.0	-31.7	0.42	-0.29	-21.95
2,700.0	0.74	6.04	2,699.6	10.7	33.0	-31.6	0.12	0.07	8.17
2,800.0	0.83	5.68	2,799.6	12.1	33.2	-31.6	0.09	0.09	-0.36
2,900.0	0.84	7.13	2,899.6	13.5	33.3	-31.6	0.02	0.01	1.45
3,000.0	0.92	6.28	2,999.6	15.1	33.5	-31.6	0.08	0.08	-0.85
3,100.0	0.70	2.51	3,099.6	16.5	33.6	-31.5	0.23	-0.22	-3.77
3,200.0	0.90	7.47	3,199.6	17.9	33.7	-31.5	0.21	0.20	4.96
3,300.0	0.70	4.24	3,299.6	19.2	33.9	-31.5	0.20	-0.20	-3.23
3,400.0	0.65	350.69	3,399.6	20.4	33.8	-31.3	0.17	-0.05	-13.55
3,500.0	0.74	358.24	3,499.6	21.6	33.7	-31.1	0.13	0.09	7.55
3,600.0	0.88	353.75	3,599.5	23.0	33.6	-30.8	0.15	0.14	-4.49
3,700.0	0.70	356.86	3,699.5	24.4	33.5	-30.5	0.18	-0.18	3.11
3,800.0	0.71	357.04	3,799.5	25.6	33.4	-30.3	0.01	0.01	0.18
3,900.0	0.84	355.08	3,899.5	27.0	33.3	-30.1	0.13	0.13	-1.96
4,000.0	1.00	346.48	3,999.5	28.6	33.1	-29.6	0.21	0.16	-8.60
4,100.0	0.92	356.23	4,099.5	30.2	32.8	-29.2	0.18	-0.08	9.75
4,200.0	0.98	347.30	4,199.5	31.8	32.6	-28.8	0.16	0.06	-8.93
4,300.0	0.61	310.64	4,299.5	33.0	32.0	-28.1	0.61	-0.37	-36.66
4,400.0	0.78	305.98	4,399.5	33.8	31.0	-27.0	0.18	0.17	-4.66
4,500.0	0.66	314.06	4,499.4	34.6	30.1	-26.0	0.16	-0.12	8.08
4,600.0	0.30	250.21	4,599.4	34.9	29.4	-25.3	0.59	-0.36	-63.85
4,700.0	0.23	251.78	4,699.4	34.7	29.0	-24.9	0.07	-0.07	1.57
4,800.0	0.45	263.91	4,799.4	34.6	28.4	-24.3	0.23	0.22	12.13
4,900.0	0.31	261.67	4,899.4	34.5	27.7	-23.7	0.14	-0.14	-2.24
5,000.0	0.15	249.92	4,999.4	34.5	27.3	-23.3	0.17	-0.16	-11.75
5,100.0	0.20	259.24	5,099.4	34.4	27.0	-23.0	0.06	0.05	9.32
5,200.0	0.06	248.03	5,199.4	34.3	26.8	-22.8	0.14	-0.14	-11.21

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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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	0.02	244.56	5,299.4	34.3	26.8	-22.7	0.04	-0.04	-3.47	
5,400.0	0.10	249.82	5,399.4	34.3	26.7	-22.6	0.08	0.08	5.26	
5,500.0	0.06	247.85	5,499.4	34.2	26.5	-22.5	0.04	-0.04	-1.97	
5,600.0	0.06	135.19	5,599.4	34.2	26.5	-22.5	0.10	0.00	-112.66	
5,700.0	0.05	153.42	5,699.4	34.1	26.6	-22.6	0.02	-0.01	18.23	
5,800.0	0.80	120.80	5,799.4	33.7	27.2	-23.2	0.76	0.75	-32.62	
5,900.0	0.85	125.46	5,899.4	32.9	28.4	-24.5	0.08	0.05	4.66	
6,000.0	0.57	132.62	5,999.4	32.1	29.4	-25.6	0.29	-0.28	7.16	
6,100.0	0.23	128.25	6,099.4	31.7	29.9	-26.1	0.34	-0.34	-4.37	
6,200.0	0.32	258.66	6,199.4	31.5	29.8	-26.0	0.50	0.09	130.41	
6,300.0	0.23	264.39	6,299.4	31.4	29.3	-25.6	0.09	-0.09	5.73	
6,400.0	0.78	276.62	6,399.4	31.5	28.4	-24.7	0.56	0.55	12.23	
6,500.0	0.89	298.97	6,499.4	31.9	27.1	-23.3	0.34	0.11	22.35	
6,600.0	1.57	266.94	6,599.4	32.2	25.0	-21.2	0.94	0.68	-32.03	
6,700.0	1.75	264.58	6,699.3	32.0	22.1	-18.4	0.19	0.18	-2.36	
6,800.0	1.90	283.62	6,799.3	32.3	19.0	-15.2	0.62	0.15	19.04	
6,900.0	1.88	295.30	6,899.2	33.3	15.9	-12.0	0.39	-0.02	11.68	
7,000.0	2.01	316.38	6,999.2	35.3	13.2	-9.2	0.72	0.13	21.08	
7,100.0	2.10	326.87	7,099.1	38.1	11.0	-6.6	0.39	0.09	10.49	
7,200.0	1.24	329.67	7,199.1	40.6	9.5	-4.8	0.86	-0.86	2.80	
7,300.0	0.85	320.46	7,299.0	42.1	8.4	-3.6	0.42	-0.39	-9.21	
7,400.0	0.31	342.73	7,399.0	42.9	7.9	-3.0	0.58	-0.54	22.27	
7,500.0	0.20	127.50	7,499.0	43.1	7.9	-3.0	0.49	-0.11	144.77	
7,600.0	0.39	124.22	7,599.0	42.8	8.4	-3.5	0.19	0.19	-3.28	
7,640.0	0.43	137.43	7,639.0	42.6	8.6	-3.7	0.26	0.10	33.03	
7640' MD VES Gyro Survey										
7,674.0	1.00	178.50	7,673.0	42.2	8.7	-3.9	2.15	1.68	120.79	
7,705.0	2.80	254.00	7,704.0	41.7	8.0	-3.2	8.80	5.81	243.55	
7,737.0	6.00	269.30	7,735.9	41.5	5.5	-0.8	10.56	10.00	47.81	
7,769.0	9.50	274.10	7,767.6	41.7	1.2	3.5	11.11	10.94	15.00	
7,801.0	13.20	278.10	7,799.0	42.4	-5.0	9.8	11.81	11.56	12.50	
7,832.0	16.90	282.30	7,828.9	43.8	-12.9	17.8	12.44	11.94	13.55	
7,865.0	20.50	284.30	7,860.2	46.3	-23.2	28.3	11.08	10.91	6.06	
7,897.0	22.80	285.00	7,889.9	49.3	-34.6	40.0	7.23	7.19	2.19	
7,929.0	24.90	285.20	7,919.2	52.6	-47.1	52.8	6.57	6.56	0.63	
7,961.0	26.80	284.80	7,948.0	56.2	-60.6	66.6	5.96	5.94	-1.25	
7,993.0	29.00	284.10	7,976.3	60.0	-75.1	81.4	6.95	6.88	-2.19	
8,025.0	31.70	283.40	8,003.9	63.8	-90.8	97.4	8.51	8.44	-2.19	
8,056.0	34.40	283.40	8,029.9	67.7	-107.3	114.2	8.71	8.71	0.00	
8,088.0	36.80	283.80	8,055.9	72.1	-125.4	132.7	7.54	7.50	1.25	
8,121.0	39.00	284.10	8,081.9	77.0	-145.0	152.8	6.69	6.67	0.91	
8,152.0	41.30	284.60	8,105.6	82.0	-164.4	172.6	7.49	7.42	1.61	
8,184.0	43.60	284.50	8,129.2	87.4	-185.3	194.0	7.19	7.19	-0.31	

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Site:	Section 27-18S-30E Ursa 27 B2IL Fed Com #1H	MD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Well:	Ursa 27 B2IL Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
8,216.0	45.80	284.30	8,152.0	93.0	-207.1	216.3	6.89	6.88	-0.63
8,248.0	48.50	284.60	8,173.7	98.8	-229.8	239.5	8.47	8.44	0.94
8,280.0	51.90	285.30	8,194.2	105.2	-253.6	263.8	10.76	10.63	2.19
8,311.0	54.90	285.90	8,212.7	111.9	-277.5	288.4	9.80	9.68	1.94
8,343.0	57.00	286.40	8,230.6	119.2	-303.0	314.5	6.69	6.56	1.56
8,375.0	58.70	286.20	8,247.6	126.8	-329.0	341.2	5.34	5.31	-0.63
8,407.0	60.30	286.40	8,263.9	134.6	-355.5	368.4	5.03	5.00	0.63
8,439.0	61.90	286.60	8,279.3	142.5	-382.3	396.0	5.03	5.00	0.63
8,471.0	64.10	286.70	8,293.9	150.7	-409.6	424.0	6.88	6.88	0.31
8,502.0	66.70	286.60	8,306.8	158.8	-436.6	451.8	8.39	8.39	-0.32
8,534.0	69.30	286.40	8,318.8	167.2	-465.1	481.0	8.15	8.13	-0.63
8,566.0	71.50	286.60	8,329.5	175.8	-494.0	510.7	6.90	6.88	0.63
8,598.0	73.00	285.50	8,339.2	184.2	-523.3	540.7	5.72	4.69	-3.44
8,629.0	74.90	284.10	8,347.8	191.8	-552.1	570.2	7.51	6.13	-4.52
8,661.0	76.90	284.10	8,355.6	199.4	-582.2	601.0	6.25	6.25	0.00
8,693.0	79.00	284.30	8,362.3	207.0	-612.5	632.0	6.59	6.56	0.63
8,724.0	81.10	284.60	8,367.6	214.7	-642.1	662.2	6.84	6.77	0.97
8,756.0	83.40	284.50	8,372.0	222.6	-672.8	693.6	7.19	7.19	-0.31
8,788.0	85.60	284.10	8,375.0	230.5	-703.6	725.2	6.99	6.88	-1.25
8,820.0	87.80	284.10	8,376.9	238.3	-734.6	756.8	6.88	6.88	0.00
8,852.0	89.90	283.60	8,377.5	245.9	-765.7	788.5	6.75	6.56	-1.56
8,883.0	91.50	283.40	8,377.1	253.2	-795.8	819.3	5.20	5.16	-0.65
8,915.0	91.50	283.40	8,376.3	260.6	-826.9	851.1	0.00	0.00	0.00
8,947.0	89.60	283.10	8,376.0	267.9	-858.1	882.8	6.01	-5.94	-0.94
8,979.0	89.90	282.70	8,376.1	275.1	-889.3	914.6	1.56	0.94	-1.25
9,010.0	89.10	283.80	8,376.4	282.2	-919.5	945.4	4.39	-2.58	3.55
9,042.0	87.90	284.30	8,377.2	289.9	-950.5	977.1	4.06	-3.75	1.56
9,073.0	88.40	284.30	8,378.2	297.6	-980.5	1,007.8	1.61	1.61	0.00
9,105.0	89.70	284.30	8,378.8	305.5	-1,011.5	1,039.5	4.06	4.06	0.00
9,137.0	89.60	283.90	8,379.0	313.3	-1,042.5	1,071.2	1.29	-0.31	-1.25
9,169.0	88.00	283.10	8,379.6	320.8	-1,073.7	1,103.0	5.59	-5.00	-2.50
9,201.0	86.70	283.80	8,381.1	328.2	-1,104.7	1,134.7	4.61	-4.06	2.19
9,233.0	86.60	283.10	8,383.0	335.6	-1,135.8	1,166.4	2.21	-0.31	-2.19
9,264.0	87.00	282.50	8,384.7	342.5	-1,166.0	1,197.2	2.32	1.29	-1.94
9,374.0	87.60	279.20	8,389.9	363.2	-1,273.9	1,306.7	3.05	0.55	-3.00
9,405.0	88.50	278.70	8,390.9	368.0	-1,304.5	1,337.7	3.32	2.90	-1.61
9,437.0	89.00	277.80	8,391.6	372.6	-1,336.2	1,369.7	3.22	1.56	-2.81
9,469.0	90.00	277.60	8,391.9	376.9	-1,367.9	1,401.7	3.19	3.13	-0.63
9,500.0	90.70	276.70	8,391.7	380.7	-1,398.6	1,432.7	3.68	2.26	-2.90
9,532.0	90.70	276.00	8,391.3	384.3	-1,430.4	1,464.7	2.19	0.00	-2.19
9,564.0	90.80	275.70	8,390.9	387.5	-1,462.3	1,496.6	0.99	0.31	-0.94
9,627.0	91.30	275.10	8,389.8	393.4	-1,525.0	1,559.6	1.24	0.79	-0.95
9,690.0	91.10	275.30	8,388.5	399.1	-1,587.7	1,622.6	0.45	-0.32	0.32
9,754.0	90.30	276.00	8,387.7	405.4	-1,651.4	1,686.6	1.66	-1.25	1.09

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Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ursa 27 B2IL Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Site:	Section 27-18S-30E Ursa 27 B2IL Fed Com #1H	MD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Well:	Ursa 27 B2IL Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
9,817.0	89.70	275.50	8,387.7	411.8	-1,714.1	1,749.6	1.24	-0.95	-0.79
9,880.0	89.90	275.30	8,387.9	417.7	-1,776.8	1,812.6	0.45	0.32	-0.32
9,943.0	90.70	275.70	8,387.6	423.7	-1,839.5	1,875.6	1.42	1.27	0.63
10,007.0	91.70	275.30	8,386.2	429.9	-1,903.2	1,939.5	1.68	1.56	-0.63
10,070.0	92.50	274.10	8,383.9	435.0	-1,965.9	2,002.5	2.29	1.27	-1.90
10,133.0	92.90	273.90	8,380.9	439.4	-2,028.7	2,065.3	0.71	0.63	-0.32
10,196.0	92.20	273.90	8,378.1	443.7	-2,091.5	2,128.2	1.11	-1.11	0.00
10,291.0	90.90	273.00	8,375.6	449.4	-2,186.3	2,223.0	1.66	-1.37	-0.95
10,386.0	92.10	270.60	8,373.1	452.4	-2,281.2	2,317.7	2.82	1.26	-2.53
10,481.0	90.50	270.70	8,370.9	453.5	-2,376.2	2,412.2	1.69	-1.68	0.11
10,575.0	90.30	270.90	8,370.3	454.8	-2,470.1	2,505.7	0.30	-0.21	0.21
10,670.0	91.60	272.30	8,368.7	457.4	-2,565.1	2,600.3	2.01	1.37	1.47
10,765.0	92.10	272.90	8,365.6	461.7	-2,659.9	2,695.1	0.82	0.53	0.63
10,860.0	91.50	274.60	8,362.6	467.9	-2,754.7	2,789.9	1.90	-0.63	1.79
10,955.0	89.90	274.40	8,361.5	475.4	-2,849.4	2,884.8	1.70	-1.68	-0.21
11,050.0	91.50	273.90	8,360.3	482.3	-2,944.1	2,979.7	1.76	1.68	-0.53
11,145.0	91.40	273.20	8,357.9	488.2	-3,038.9	3,074.6	0.74	-0.11	-0.74
11,240.0	90.40	273.90	8,356.4	494.0	-3,133.7	3,169.5	1.28	-1.05	0.74
11,335.0	89.70	272.20	8,356.3	499.1	-3,228.6	3,264.3	1.94	-0.74	-1.79
11,429.0	89.40	272.30	8,357.1	502.8	-3,322.5	3,358.0	0.34	-0.32	0.11
11,524.0	90.60	272.90	8,357.1	507.1	-3,417.4	3,452.8	1.41	1.26	0.63
11,619.0	90.40	273.90	8,356.3	512.7	-3,512.2	3,547.7	1.07	-0.21	1.05
11,714.0	90.80	273.40	8,355.3	518.8	-3,607.0	3,642.5	0.67	0.42	-0.53
11,809.0	92.20	274.80	8,352.8	525.6	-3,701.8	3,737.4	2.08	1.47	1.47
11,904.0	91.50	274.80	8,349.7	533.5	-3,796.4	3,832.3	0.74	-0.74	0.00
11,999.0	91.50	274.40	8,347.2	541.1	-3,891.0	3,927.2	0.42	0.00	-0.42
12,093.0	91.00	274.10	8,345.2	548.1	-3,984.8	4,021.1	0.62	-0.53	-0.32
12,188.0	90.20	273.70	8,344.2	554.5	-4,079.5	4,116.0	0.94	-0.84	-0.42
12,283.0	90.00	273.70	8,344.0	560.7	-4,174.3	4,210.9	0.21	-0.21	0.00
12,378.0	90.50	273.70	8,343.6	566.8	-4,269.1	4,305.8	0.53	0.53	0.00
12,473.0	91.50	273.00	8,341.9	572.4	-4,363.9	4,400.7	1.28	1.05	-0.74
12,568.0	91.00	272.70	8,339.9	577.1	-4,458.8	4,495.5	0.61	-0.53	-0.32
12,663.0	91.20	273.60	8,338.0	582.3	-4,553.6	4,590.3	0.97	0.21	0.95
12,757.0	91.70	272.50	8,335.7	587.3	-4,647.5	4,684.1	1.29	0.53	-1.17
12,852.0	90.80	272.50	8,333.6	591.4	-4,742.4	4,778.8	0.95	-0.95	0.00
12,946.0	91.10	272.90	8,332.0	595.9	-4,836.3	4,872.6	0.53	0.32	0.43
13,041.0	91.80	273.40	8,329.6	601.1	-4,931.1	4,967.4	0.91	0.74	0.53
13,136.0	92.00	274.10	8,326.5	607.3	-5,025.8	5,062.2	0.77	0.21	0.74
13,231.0	91.30	274.60	8,323.7	614.5	-5,120.5	5,157.1	0.91	-0.74	0.53
13,325.0	91.20	274.30	8,321.7	621.8	-5,214.2	5,251.1	0.34	-0.11	-0.32
13,420.0	91.70	273.00	8,319.3	627.8	-5,309.0	5,345.9	1.47	0.53	-1.37
13,515.0	89.10	269.20	8,318.6	629.7	-5,403.9	5,440.5	4.85	-2.74	-4.00
13,610.0	91.30	272.20	8,318.3	630.8	-5,498.9	5,535.0	3.92	2.32	3.16

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ursa 27 B2IL Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Site:	Section 27-18S-30E Ursa 27 B2IL Fed Com #1H	MD Reference:	GL 3408 + 20 @ 3428.0usft (Patterson #41)
Well:	Ursa 27 B2IL Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
13,705.0	89.60	272.30	8,317.5	634.6	-5,593.8	5,629.7	1.79	-1.79	0.11
13,799.0	88.60	271.80	8,319.0	637.9	-5,687.8	5,723.4	1.19	-1.06	-0.53
13,894.0	89.60	269.50	8,320.5	639.0	-5,782.7	5,817.9	2.64	1.05	-2.42
13,960.0	89.60	269.50	8,321.0	638.4	-5,848.7	5,883.4	0.00	0.00	0.00
13960' MD Projected to Bit									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,640.0	7,639.0	42.6	8.6	7640' MD VES Gyro Survey
13,960.0	8,321.0	638.4	-5,848.7	13960' MD Projected to Bit



October 7, 2014

New Mexico Energy, Minerals and Natural Resources Department

**Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505**

Attn: Jackie Lathan

**Re: Mewbourne Oil Company
Ursa 27 B2IL Federal Com #001H
Santo Nino; Bone Spring
Eddy County, New Mexico
API# 30-015-42526**

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Noah Townsend	Original Hole	7,674 ft. to 13,894 ft.	08-21-14 to 09-04-14	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number


Todd Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Ursa 27 B2IL Federal Com #1HWM141187

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



October 7, 2014

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of August 21, 2014 thru September 04, 2014, conduct or supervise the taking of a SEDS MWD Survey from a depth of 7,674 feet to 13,894 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Ursa 27 B2IL Federal Com #001H well, API # 30-015-42526 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



Job Number: M141187
 Company: Mewbourne Oil Company
 Lease/Well: Ursa 27 B2IL Federal Com # 1H
 Location: Eddy County
 Rig Name: Patterson # 41
 RKB: N/A
 G.L. or M.S.L.: N/A

State/Country: New Mexico / USA
 Declination: 7.25° Corrected To Grid
 Grid: 7.25°
 File name: C:\WINSERVE\DOCS\M141187.SVY
 Date/Time: 25-Sep-14 / 07:43
 Curve Name: SES MWD SURVEY RAN ON 8-21-14

Styker Energy Directional Services, LLC.

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 276.48
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie-In Data Provided by VES Gyro Survey									
7640.00	.43	137.43	7639.04	42.57	8.59	-3.73	43.43	11.41	.00
7674.00	1.00	178.50	7673.04	42.18	8.68	-3.87	43.06	11.63	2.15
7705.00	2.80	254.00	7704.02	41.70	7.96	-3.21	42.45	10.81	8.80
7737.00	6.00	269.30	7735.92	41.46	5.54	-.82	41.83	7.61	10.56
7769.00	9.50	274.10	7767.63	41.63	1.23	3.48	41.65	1.69	11.11
7801.00	13.20	278.10	7799.00	42.34	-5.02	9.77	42.63	353.23	11.81
7832.00	16.90	282.30	7828.93	43.80	-12.93	17.79	45.67	343.55	12.44
7865.00	20.50	284.30	7860.18	46.25	-23.22	28.29	51.75	333.34	11.08
7897.00	22.80	285.00	7889.92	49.23	-34.64	39.98	60.20	324.87	7.23
7929.00	24.90	285.20	7919.19	52.61	-47.13	52.77	70.63	318.14	6.57
7961.00	26.80	284.80	7947.99	56.22	-60.61	66.57	82.67	312.85	5.96
7993.00	29.00	284.10	7976.26	59.95	-75.11	81.40	96.10	308.60	6.95
8025.00	31.70	283.40	8003.88	63.79	-90.81	97.43	110.98	305.08	8.51
8056.00	34.40	283.40	8029.86	67.71	-107.26	114.21	126.84	302.26	8.71
8088.00	36.80	283.80	8055.88	72.09	-125.36	132.70	144.61	299.90	7.54
8121.00	39.00	284.10	8081.91	76.97	-145.03	152.80	164.20	297.96	6.69
8152.00	41.30	284.60	8105.61	81.93	-164.40	172.59	183.68	296.49	7.49
8184.00	43.60	284.50	8129.22	87.36	-185.30	193.98	204.86	295.24	7.19
8216.00	45.80	284.30	8151.96	92.95	-207.10	216.27	227.01	294.17	6.89
8248.00	48.50	284.60	8173.72	98.81	-229.82	239.50	250.16	293.26	8.47
8280.00	51.90	285.30	8194.20	105.15	-253.57	263.81	274.50	292.52	10.76
8311.00	54.90	285.90	8212.68	111.85	-277.53	288.38	299.22	291.95	9.80
8343.00	57.00	286.40	8230.60	119.22	-303.00	314.52	325.61	291.48	6.69
8375.00	58.70	286.20	8247.63	126.83	-329.00	341.21	352.60	291.08	5.34

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8407.00	60.30	286.40	8263.87	134.56	-355.46	368.38	380.08	290.73	5.03
8439.00	61.90	286.60	8279.33	142.52	-382.32	395.97	408.03	290.44	5.03
8471.00	64.10	286.70	8293.86	150.69	-409.64	424.03	436.48	290.20	6.88
8502.00	66.70	286.60	8306.76	158.77	-436.64	451.77	464.61	289.98	8.39
8534.00	69.30	286.40	8318.75	167.19	-465.09	480.99	494.23	289.77	8.15
8566.00	71.50	286.60	8329.48	175.75	-493.99	510.67	524.32	289.58	6.90
8598.00	73.00	285.50	8339.24	184.18	-523.28	540.72	554.74	289.39	5.72
8629.00	74.90	284.10	8347.81	191.78	-552.08	570.20	584.44	289.16	7.51
8661.00	76.90	284.10	8355.61	199.35	-582.18	600.96	615.36	288.90	6.25
8693.00	79.00	284.30	8362.29	207.02	-612.52	631.97	646.56	288.67	6.59
8724.00	81.10	284.60	8367.64	214.64	-642.08	662.20	677.01	288.48	6.84
8756.00	83.40	284.50	8371.96	222.61	-672.77	693.60	708.64	288.31	7.19
8788.00	85.60	284.10	8375.02	230.47	-703.63	725.15	740.42	288.14	6.99
8820.00	87.80	284.10	8376.87	238.26	-734.62	756.81	772.29	287.97	6.87
8852.00	89.90	283.60	8377.51	245.91	-765.68	788.54	804.20	287.81	6.75
8883.00	91.50	283.40	8377.13	253.15	-795.82	819.30	835.11	287.65	5.20
8915.00	91.50	283.40	8376.29	260.56	-826.94	851.06	867.02	287.49	.00
8947.00	89.60	283.10	8375.98	267.90	-858.08	882.83	898.93	287.34	6.01
8979.00	89.90	282.70	8376.12	275.04	-889.27	914.63	930.84	287.19	1.56
9010.00	89.10	283.80	8376.39	282.15	-919.45	945.41	961.76	287.06	4.39
9042.00	87.90	284.30	8377.23	289.91	-950.48	977.12	993.71	286.96	4.06
9073.00	88.40	284.30	8378.23	297.56	-980.50	1007.82	1024.66	286.88	1.61
9105.00	89.70	284.30	8378.76	305.47	-1011.51	1039.52	1056.62	286.80	4.06
9137.00	89.60	283.90	8378.96	313.26	-1042.54	1071.23	1088.59	286.72	1.29
9169.00	88.00	283.10	8379.63	320.73	-1073.65	1102.99	1120.53	286.63	5.59
9201.00	86.70	283.80	8381.11	328.17	-1104.74	1134.71	1152.45	286.54	4.61
9233.00	86.60	283.10	8382.98	335.60	-1135.81	1166.42	1184.35	286.46	2.21
9264.00	87.00	282.50	8384.71	342.45	-1165.99	1197.19	1215.24	286.37	2.32
9374.00	87.60	279.20	8389.89	363.13	-1273.89	1306.73	1324.63	285.91	3.05
9405.00	88.50	278.70	8390.95	367.95	-1304.49	1337.68	1355.39	285.75	3.32
9437.00	89.00	277.80	8391.65	372.54	-1336.15	1369.66	1387.12	285.58	3.22
9469.00	90.00	277.60	8391.92	376.83	-1367.86	1401.65	1418.82	285.40	3.19
9500.00	90.70	276.70	8391.74	380.69	-1398.62	1432.65	1449.50	285.23	3.68
9532.00	90.70	276.00	8391.34	384.23	-1430.42	1464.64	1481.13	285.04	2.19
9564.00	90.80	275.70	8390.93	387.49	-1462.25	1496.64	1512.72	284.84	.99
9627.00	91.30	275.10	8389.77	393.42	-1524.96	1559.62	1574.89	284.47	1.24
9690.00	91.10	275.30	8388.45	399.13	-1587.69	1622.59	1637.09	284.11	.45
9754.00	90.30	276.00	8387.67	405.43	-1651.37	1686.58	1700.41	283.79	1.66
9817.00	89.70	275.50	8387.67	411.74	-1714.05	1749.57	1762.81	283.51	1.24
9880.00	89.90	275.30	8387.89	417.67	-1776.77	1812.56	1825.20	283.23	.45
9943.00	90.70	275.70	8387.56	423.70	-1839.48	1875.55	1887.65	282.97	1.42
10007.00	91.70	275.30	8386.22	429.84	-1903.17	1939.52	1951.11	282.73	1.68
10070.00	92.50	274.10	8383.91	435.00	-1965.92	2002.45	2013.47	282.48	2.29
10133.00	92.90	273.90	8380.94	439.39	-2028.69	2065.32	2075.73	282.22	.71
10196.00	92.20	273.90	8378.14	443.67	-2091.48	2128.19	2138.02	281.98	1.11

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
10291.00	90.90	273.00	8375.57	449.38	-2186.27	2223.02	2231.98	281.62	1.66
10386.00	92.10	270.60	8373.08	452.36	-2281.19	2317.67	2325.61	281.22	2.82
10481.00	90.50	270.70	8370.93	453.44	-2376.15	2412.15	2419.03	280.80	1.69
10575.00	90.30	270.90	8370.27	454.75	-2470.14	2505.68	2511.65	280.43	.30
10670.00	91.60	272.30	8368.70	457.41	-2565.09	2600.32	2605.55	280.11	2.01
10765.00	92.10	272.90	8365.63	461.71	-2659.94	2695.05	2699.71	279.85	.82
10860.00	91.50	274.60	8362.65	467.92	-2754.68	2789.89	2794.14	279.64	1.90
10955.00	89.90	274.40	8361.49	475.38	-2849.38	2884.83	2888.76	279.47	1.70
11050.00	91.50	273.90	8360.32	482.25	-2944.12	2979.74	2983.36	279.30	1.76
11145.00	91.40	273.20	8357.92	488.13	-3038.91	3074.58	3077.86	279.13	.74
11240.00	90.40	273.90	8356.43	494.01	-3133.71	3169.45	3172.41	278.96	1.28
11335.00	89.70	272.20	8356.35	499.07	-3228.57	3264.27	3266.92	278.79	1.94
11429.00	89.40	272.30	8357.08	502.76	-3322.50	3358.01	3360.32	278.60	.34
11524.00	90.60	272.90	8357.08	507.07	-3417.40	3452.79	3454.81	278.44	1.41
11619.00	90.40	273.90	8356.25	512.70	-3512.23	3547.65	3549.45	278.31	1.07
11714.00	90.80	273.40	8355.26	518.75	-3607.03	3642.53	3644.14	278.18	.67
11809.00	92.20	274.80	8352.77	525.54	-3701.75	3737.41	3738.87	278.08	2.08
11904.00	91.50	274.80	8349.71	533.48	-3796.37	3832.32	3833.67	278.00	.74
11999.00	91.50	274.40	8347.22	541.10	-3891.03	3927.23	3928.47	277.92	.42
12093.00	91.00	274.10	8345.17	548.06	-3984.75	4021.14	4022.26	277.83	.62
12188.00	90.20	273.70	8344.17	554.52	-4079.52	4116.04	4117.03	277.74	.94
12283.00	90.00	273.70	8344.01	560.65	-4174.32	4210.93	4211.80	277.65	.21
12378.00	90.50	273.70	8343.59	566.78	-4269.12	4305.81	4306.58	277.56	.53
12473.00	91.50	273.00	8341.94	572.34	-4363.94	4400.66	4401.31	277.47	1.28
12568.00	91.00	272.70	8339.86	577.06	-4458.80	4495.44	4495.99	277.37	.61
12663.00	91.20	273.60	8338.04	582.28	-4553.64	4590.26	4590.72	277.29	.97
12757.00	91.70	272.50	8335.66	587.28	-4647.48	4684.06	4684.43	277.20	1.29
12852.00	90.80	272.50	8333.59	591.42	-4742.36	4778.81	4779.10	277.11	.95
12946.00	91.10	272.90	8332.03	595.85	-4836.24	4872.59	4872.81	277.02	.53
13041.00	91.80	273.40	8329.63	601.07	-4931.07	4967.40	4967.57	276.95	.91
13136.00	92.00	274.10	8326.48	607.28	-5025.81	5062.24	5062.37	276.89	.77
13231.00	91.30	274.60	8323.74	614.48	-5120.50	5157.13	5157.24	276.84	.91
13325.00	91.20	274.30	8321.69	621.77	-5214.19	5251.05	5251.13	276.80	.34
13420.00	91.70	273.00	8319.29	627.82	-5308.97	5345.90	5345.96	276.74	1.47
13515.00	89.10	269.20	8318.62	629.64	-5403.92	5440.46	5440.48	276.65	4.85
13610.00	91.30	272.20	8318.29	630.80	-5498.90	5534.96	5534.96	276.54	3.92
13705.00	89.60	272.30	8317.54	634.53	-5593.82	5629.69	5629.69	276.47	1.79
13799.00	88.60	271.80	8319.02	637.89	-5687.75	5723.40	5723.40	276.40	1.19
13894.00	89.60	269.50	8320.51	638.97	-5782.72	5817.89	5817.91	276.31	2.64
Projection to Bit									
13960.00	89.60	269.50	8320.97	638.39	-5848.72	5883.40	5883.45	276.23	.00



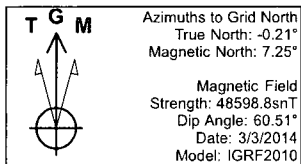
COMPANY: Mewbourne Oil Company
 WELL: Ursa 27 B2IL Fed Com #1H
 COUNTY: Eddy County, New Mexico
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson #41



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.25°

GEODETTIC ZONE: New Mexico East 3001					
GL 3408 + 20 @ 3428.0usft (Patterson #41)					
GROUND ELEVATION: 3408.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	624026.70	618585.00	32° 42' 53.833 N	103° 56' 51.987 W
					Slot



PLAN SECTIONS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	7640.0	0.43	137.43	7639.0	42.6	8.6	0.00	0.00	-3.7
2	7650.0	0.43	137.43	7649.0	42.5	8.6	0.00	0.00	-3.8
3	8795.3	89.54	284.98	8383.5	226.8	-691.6	7.85	147.55	712.7
4	9355.6	89.54	284.98	8388.0	371.6	-1232.9	0.00	0.00	1266.9
5	9967.9	91.09	272.83	8384.6	466.2	-1836.6	2.00	-82.73	1877.5
6	13993.1	91.09	272.83	8308.0	664.8	-5856.1	0.00	0.00	5893.8
									LP Ursa 27 B2IL Fed Com #1H
									PBHL Ursa 27 B2IL Fed Com #1H

