



30 015-43212

Mewbourne Oil Company

Eddy County, New Mexico

Section 27-24S-28E Rock Spur 27 W2CN St Com 1H

Rock Spur 27 W2CN St Com 1H

Original Hole

Design: Original Hole

Standard Survey Report

18 April, 2017





Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 27-24S-28E Rock Spur 27 W2CN St Com 1H
Well: Rock Spur 27 W2CN St Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Rock Spur 27 W2CN St Com 1H
TVD Reference: 2991+ 27 @ 3018.0usft (Patterson 242)
MD Reference: 2991+ 27 @ 3018.0usft (Patterson 242)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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 27-24S-28E Rock Spur 27 W2CN St Com 1H

Site Position:		Northing:	434,833.40 usft	Latitude:	32° 11' 42.781 N
From:	Map	Easting:	578,905.40 usft	Longitude:	104° 4' 41.714 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.14 °

Well Rock Spur 27 W2CN St Com 1H

Well Position	+N-S	0.0 usft	Northing:	434,833.40 usft	Latitude:	32° 11' 42.781 N
	+E-W	0.0 usft	Easting:	578,905.40 usft	Longitude:	104° 4' 41.714 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	27.0 usft	Ground Level:	2,991.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/22/2017	7.21	59.96	47,894.17492878

Design Original Hole

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.0	0.0	0.0	80.14

Survey Program Date 4/18/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
39.0	373.0	Rig Survey (Original Hole)	MWD	MWD v3:standard declination
488.0	15,400.0	Stryker MWD Survey (Original Hole)	MWD	MWD v3:standard declination

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
39.0	0.20	111.00	39.0	0.0	0.1	0.1	0.51	0.51	0.00
136.0	1.10	42.10	136.0	0.6	0.8	0.9	1.08	0.93	-71.03
198.0	1.80	39.10	198.0	1.8	1.9	2.1	1.14	1.13	-4.84
265.0	2.50	54.10	264.9	3.5	3.7	4.2	1.33	1.04	22.39
323.0	2.40	55.10	322.9	4.9	5.7	6.5	0.19	-0.17	1.72
373.0	1.80	52.10	372.8	6.0	7.2	8.1	1.22	-1.20	-6.00
373.0' MD Rig Survey's									
488.0	1.50	65.40	487.8	7.7	10.0	11.2	0.42	-0.26	11.57

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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)
550.0	0.50	147.60	549.8	7.8	10.9	12.1	2.44	-1.61	132.58
610.0	1.10	213.40	609.8	7.1	10.7	11.8	1.67	1.00	109.67
672.0	1.10	191.70	671.8	6.1	10.3	11.1	0.67	0.00	-35.00
734.0	1.70	215.70	733.7	4.7	9.6	10.3	1.33	0.97	38.71
765.0	1.40	207.60	764.7	4.0	9.2	9.7	1.20	-0.97	-26.13
832.0	0.10	34.90	831.7	3.3	8.8	9.3	2.24	-1.94	-257.76
895.0	0.10	172.60	894.7	3.3	8.8	9.3	0.30	0.00	218.57
959.0	0.40	124.70	958.7	3.2	9.0	9.4	0.53	0.47	-74.84
1,022.0	0.50	209.50	1,021.7	2.8	9.1	9.4	0.97	0.16	134.60
1,086.0	0.40	180.80	1,085.7	2.3	8.9	9.2	0.38	-0.16	-44.84
1,149.0	0.30	316.20	1,148.7	2.2	8.8	9.1	1.03	-0.16	214.92
1,213.0	0.90	12.60	1,212.7	2.8	8.8	9.2	1.21	0.94	88.13
1,276.0	1.10	7.30	1,275.7	3.9	9.0	9.5	0.35	0.32	-8.41
1,340.0	0.20	6.20	1,339.7	4.6	9.1	9.8	1.41	-1.41	-1.72
1,403.0	0.40	222.20	1,402.7	4.6	9.0	9.6	0.91	0.32	-228.57
1,467.0	0.50	250.40	1,466.7	4.3	8.5	9.2	0.37	0.16	44.06
1,530.0	0.40	198.10	1,529.7	4.0	8.2	8.8	0.65	-0.16	-83.02
1,594.0	0.70	66.90	1,593.7	4.0	8.5	9.1	1.58	0.47	-205.00
1,657.0	1.10	86.40	1,656.7	4.1	9.5	10.0	0.79	0.63	30.95
1,720.0	0.70	114.90	1,719.7	4.0	10.4	11.0	0.93	-0.63	45.24
1,784.0	0.70	80.00	1,783.7	3.9	11.2	11.7	0.66	0.00	-54.53
1,816.0	0.60	68.50	1,815.7	4.0	11.5	12.0	0.51	-0.31	-35.94
1,914.0	0.50	107.00	1,913.7	4.1	12.4	12.9	0.38	-0.10	39.29
2,009.0	2.00	72.20	2,008.7	4.5	14.4	14.9	1.70	1.58	-36.63
2,104.0	0.90	132.90	2,103.6	4.5	16.5	17.0	1.84	-1.16	63.89
2,199.0	1.20	269.30	2,198.6	4.0	16.0	16.5	2.06	0.32	143.58
2,294.0	0.80	245.30	2,293.6	3.7	14.4	14.9	0.60	-0.42	-25.26
2,389.0	0.70	182.90	2,388.6	2.8	13.8	14.1	0.82	-0.11	-65.68
2,426.0	0.60	194.00	2,425.6	2.4	13.8	14.0	0.43	-0.27	30.00
2,483.0	0.70	160.20	2,482.6	1.8	13.8	13.9	0.68	0.18	-59.30
2,578.0	0.20	205.60	2,577.6	1.1	13.9	13.9	0.61	-0.53	47.79
2,674.0	2.00	352.20	2,673.6	2.6	13.6	13.9	2.26	1.88	152.71
2,769.0	2.10	359.10	2,768.5	6.0	13.4	14.2	0.28	0.11	7.26
2,864.0	1.80	0.80	2,863.5	9.2	13.4	14.7	0.32	-0.32	1.79
2,959.0	1.70	351.90	2,958.4	12.1	13.2	15.1	0.30	-0.11	-9.37
3,054.0	1.70	9.90	3,053.4	14.9	13.2	15.6	0.56	0.00	18.95
3,150.0	1.60	4.40	3,149.3	17.6	13.6	16.4	0.19	-0.10	-5.73
3,245.0	1.40	0.00	3,244.3	20.1	13.7	16.9	0.24	-0.21	-4.63
3,341.0	2.40	344.20	3,340.2	23.2	13.1	16.9	1.17	1.04	-16.46
3,436.0	2.40	338.20	3,435.2	27.0	11.9	16.3	0.26	0.00	-6.32
3,529.0	2.00	331.00	3,528.1	30.2	10.3	15.4	0.52	-0.43	-7.74
3,624.0	2.20	329.80	3,623.0	33.2	8.6	14.2	0.22	0.21	-1.26



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3,719.0	2.40	330.40	3,718.0	36.5	6.7	12.9	0.21	0.21	0.63
3,814.0	2.20	332.20	3,812.9	39.9	4.9	11.6	0.22	-0.21	1.89
3,910.0	2.20	323.40	3,908.8	43.0	2.9	10.3	0.35	0.00	-9.17
4,005.0	1.80	314.10	4,003.7	45.5	0.8	8.6	0.54	-0.42	-9.79
4,100.0	1.90	345.50	4,098.7	48.0	-0.7	7.5	1.06	0.11	33.05
4,194.0	2.10	342.90	4,192.6	51.2	-1.6	7.2	0.23	0.21	-2.77
4,288.0	2.50	8.60	4,286.6	54.9	-1.8	7.6	1.16	0.43	27.34
4,384.0	2.70	13.00	4,382.5	59.1	-1.0	9.2	0.29	0.21	4.58
4,480.0	1.80	342.30	4,478.4	62.8	-0.9	9.9	1.54	-0.94	-31.98
4,575.0	1.80	333.00	4,573.4	65.5	-2.0	9.2	0.31	0.00	-9.79
4,671.0	2.10	335.10	4,669.3	68.5	-3.5	8.3	0.32	0.31	2.19
4,766.0	1.50	319.70	4,764.2	71.0	-5.0	7.2	0.81	-0.63	-16.21
4,861.0	2.10	348.10	4,859.2	73.6	-6.2	6.5	1.11	0.63	29.89
4,957.0	1.70	341.90	4,955.2	76.7	-7.0	6.3	0.47	-0.42	-6.46
5,052.0	2.10	358.10	5,050.1	79.8	-7.5	6.3	0.70	0.42	17.05
5,147.0	1.90	358.30	5,145.0	83.1	-7.6	6.8	0.21	-0.21	0.21
5,243.0	1.50	348.00	5,241.0	85.9	-7.9	7.0	0.52	-0.42	-10.73
5,338.0	1.80	9.90	5,336.0	88.6	-7.9	7.4	0.73	0.32	23.05
5,435.0	1.60	10.40	5,432.9	91.5	-7.4	8.4	0.21	-0.21	0.52
5,530.0	2.70	354.80	5,527.9	95.0	-7.3	9.0	1.30	1.16	-16.42
5,625.0	2.70	358.50	5,622.7	99.5	-7.6	9.5	0.18	0.00	3.89
5,720.0	2.30	353.80	5,717.7	103.6	-7.9	10.0	0.47	-0.42	-4.95
5,815.0	1.90	354.60	5,812.6	107.0	-8.2	10.2	0.42	-0.42	0.84
5,910.0	1.80	344.80	5,907.5	110.1	-8.8	10.2	0.35	-0.11	-10.32
6,006.0	1.80	354.30	6,003.5	113.0	-9.3	10.2	0.31	0.00	9.90
6,101.0	1.40	341.10	6,098.5	115.6	-9.8	10.1	0.57	-0.42	-13.89
6,195.0	2.20	353.50	6,192.4	118.5	-10.4	10.0	0.94	0.85	13.19
6,290.0	1.80	358.20	6,287.4	121.8	-10.7	10.4	0.45	-0.42	4.95
6,386.0	1.90	350.60	6,383.3	124.9	-11.0	10.6	0.28	0.10	-7.92
6,481.0	1.40	327.50	6,478.3	127.4	-11.8	10.1	0.87	-0.53	-24.32
6,576.0	3.20	339.60	6,573.2	130.8	-13.4	9.2	1.95	1.89	12.74
6,671.0	3.10	342.20	6,668.0	135.8	-15.1	8.4	0.18	-0.11	2.74
6,767.0	2.10	2.70	6,763.9	140.0	-15.8	8.4	1.41	-1.04	21.35
6,862.0	2.90	44.30	6,858.9	143.5	-14.1	10.7	2.03	0.84	43.79
6,957.0	1.90	57.90	6,953.8	146.0	-11.0	14.1	1.20	-1.05	14.32
7,052.0	1.80	60.10	7,048.7	147.6	-8.4	17.0	0.13	-0.11	2.32
7,149.0	2.10	67.60	7,145.7	149.0	-5.5	20.2	0.41	0.31	7.73
7,243.0	0.60	18.20	7,239.6	150.2	-3.7	22.1	1.88	-1.60	-52.55
7,339.0	1.80	354.00	7,335.6	152.1	-3.7	22.4	1.33	1.25	-25.21
7,435.0	1.70	349.40	7,431.6	155.0	-4.1	22.5	0.18	-0.10	-4.79
7,531.0	1.60	300.80	7,527.5	157.1	-5.5	21.5	1.42	-0.10	-50.63
7,626.0	2.00	350.60	7,622.5	159.4	-6.9	20.5	1.64	0.42	52.42
7,721.0	1.20	25.10	7,717.5	162.0	-6.8	21.0	1.28	-0.84	36.32



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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)
7,816.0	2.90	32.00	7,812.4	164.9	-5.1	23.2	1.81	1.79	7.26
7,911.0	2.60	14.90	7,907.3	169.0	-3.3	25.7	0.92	-0.32	-18.00
8,007.0	2.00	1.70	8,003.2	172.8	-2.7	27.0	0.83	-0.63	-13.75
8,102.0	1.40	350.50	8,098.2	175.6	-2.8	27.3	0.72	-0.63	-11.79
8,198.0	1.70	340.80	8,194.1	178.1	-3.5	27.1	0.41	0.31	-10.10
8,294.0	2.10	9.40	8,290.1	181.2	-3.6	27.4	1.06	0.42	29.79
8,389.0	1.30	355.30	8,385.0	184.0	-3.5	28.1	0.94	-0.84	-14.84
8,485.0	2.80	330.00	8,481.0	187.1	-4.7	27.4	1.79	1.56	-26.35
8,580.0	0.60	322.90	8,575.9	189.5	-6.2	26.4	2.32	-2.32	-7.47
8,675.0	1.20	30.10	8,670.9	190.8	-6.0	26.8	1.17	0.63	70.74
8,775.0	1.60	56.10	8,770.9	192.5	-4.3	28.7	0.74	0.40	26.00
8,870.0	1.50	29.60	8,865.9	194.3	-2.6	30.7	0.75	-0.11	-27.89
8,965.0	1.90	1.70	8,960.8	196.9	-1.9	31.8	0.95	0.42	-29.37
9,061.0	2.20	1.20	9,056.8	200.4	-1.8	32.5	0.31	0.31	-0.52
9,156.0	3.00	5.20	9,151.7	204.7	-1.6	33.5	0.86	0.84	4.21
9,250.0	2.90	10.70	9,245.5	209.4	-0.9	35.0	0.32	-0.11	5.85
9,345.0	2.40	10.10	9,340.4	213.8	-0.1	36.5	0.53	-0.53	-0.63
9,441.0	2.90	19.10	9,436.3	218.0	1.0	38.4	0.68	0.52	9.38
9,535.0	2.40	21.10	9,530.2	222.1	2.5	40.5	0.54	-0.53	2.13
9,631.0	2.20	17.60	9,626.2	225.8	3.8	42.4	0.25	-0.21	-3.65
9,727.0	1.60	26.40	9,722.1	228.7	5.0	44.1	0.69	-0.63	9.17
9,822.0	1.50	20.10	9,817.1	231.1	6.0	45.5	0.21	-0.11	-6.63
9,918.0	1.50	17.30	9,913.0	233.4	6.8	46.7	0.08	0.00	-2.92
9,950.0	1.50	19.00	9,945.0	234.2	7.0	47.1	0.14	0.00	5.31
10,001.0	1.70	19.20	9,996.0	235.6	7.5	47.7	0.39	0.39	0.39
10,004.9	1.55	24.88	9,999.9	235.7	7.6	47.8	5.69	-3.89	146.58
BB Rock Spur 27 W2CN St Com 1H									
10,032.0	1.30	89.80	10,027.0	236.0	8.0	48.3	5.69	-0.92	239.35
10,064.0	3.50	152.90	10,059.0	235.2	8.8	49.0	9.79	6.88	197.19
10,096.0	6.40	164.60	10,090.8	232.6	9.7	49.4	9.55	9.06	36.56
10,127.0	9.30	175.20	10,121.6	228.4	10.4	49.4	10.42	9.35	34.19
10,159.0	12.40	180.40	10,153.0	222.4	10.6	48.5	10.15	9.69	16.25
10,190.0	14.70	184.40	10,183.1	215.1	10.3	47.0	8.01	7.42	12.90
10,222.0	17.30	185.60	10,213.9	206.4	9.5	44.7	8.19	8.13	3.75
10,254.0	19.70	188.00	10,244.2	196.3	8.3	41.8	7.87	7.50	7.50
10,286.0	22.40	190.10	10,274.1	184.9	6.5	38.0	8.76	8.44	6.56
10,318.0	26.50	189.50	10,303.2	171.9	4.2	33.6	12.84	12.81	-1.88
10,350.0	29.00	188.50	10,331.5	157.2	1.9	28.8	7.95	7.81	-3.13
10,381.0	31.60	187.50	10,358.3	141.7	-0.3	24.0	8.54	8.39	-3.23
10,413.0	33.30	187.40	10,385.3	124.7	-2.5	18.9	5.32	5.31	-0.31
10,444.0	37.20	186.60	10,410.6	106.9	-4.7	13.7	12.67	12.58	-2.58
10,477.0	42.30	188.10	10,436.0	86.0	-7.4	7.4	15.72	15.45	4.55
10,508.0	46.50	190.50	10,458.1	64.6	-10.9	0.3	14.59	13.55	7.74



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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)
10,540.0	48.80	189.50	10,479.7	41.3	-15.0	-7.7	7.55	7.19	-3.13
10,572.0	52.90	184.90	10,499.9	16.7	-18.1	-15.0	16.98	12.81	-14.38
10,604.0	57.70	182.00	10,518.1	-9.6	-19.7	-21.0	16.75	15.00	-9.06
10,636.0	61.40	181.90	10,534.3	-37.1	-20.6	-26.7	11.57	11.56	-0.31
10,668.0	65.00	180.60	10,548.7	-65.7	-21.2	-32.1	11.82	11.25	-4.06
10,699.0	68.20	177.40	10,561.0	-94.1	-20.7	-36.5	14.01	10.32	-10.32
10,719.0	70.00	176.40	10,568.2	-112.8	-19.7	-38.7	10.14	9.00	-5.00
10,757.0	74.90	173.90	10,579.6	-148.9	-16.6	-41.9	14.34	12.89	-6.58
10,788.0	78.20	173.70	10,586.8	-178.8	-13.4	-43.8	10.66	10.65	-0.65
10,820.0	79.90	174.60	10,592.9	-210.1	-10.2	-46.0	5.99	5.31	2.81
10,852.0	80.90	175.70	10,598.3	-241.5	-7.5	-48.8	4.61	3.13	3.44
10,883.0	81.80	176.40	10,602.9	-272.1	-5.4	-51.9	3.66	2.90	2.26
10,915.0	85.60	178.70	10,606.4	-303.9	-4.0	-56.0	13.86	11.88	7.19
10,946.0	90.80	181.10	10,607.4	-334.8	-4.0	-61.3	18.47	16.77	7.74
10,978.0	91.30	179.80	10,606.8	-366.8	-4.2	-67.0	4.35	1.56	-4.06
11,041.0	89.90	176.50	10,606.2	-429.8	-2.2	-75.8	5.69	-2.22	-5.24
11,137.0	88.70	181.70	10,607.3	-525.7	-0.7	-90.7	5.56	-1.25	5.42
11,191.1	88.70	180.33	10,608.6	-579.8	-1.6	-100.9	2.53	0.00	-2.53
LP Rock Spur 27 W2CN St Com 1H									
11,232.0	88.70	179.30	10,609.5	-620.7	-1.5	-107.8	2.53	0.00	-2.53
11,328.0	88.20	183.10	10,612.1	-716.6	-3.5	-126.2	3.99	-0.52	3.96
11,424.0	89.90	181.50	10,613.7	-812.5	-7.4	-146.4	2.43	1.77	-1.67
11,519.0	90.90	180.80	10,613.0	-907.5	-9.3	-164.6	1.28	1.05	-0.74
11,614.0	90.20	178.30	10,612.1	-1,002.6	-8.5	-180.1	2.73	-0.74	-2.63
11,709.0	89.90	176.60	10,612.0	-1,097.4	-4.3	-192.2	1.82	-0.32	-1.79
11,804.0	89.30	176.90	10,612.7	-1,192.2	1.1	-203.1	0.71	-0.63	0.32
11,900.0	87.90	178.40	10,615.0	-1,288.1	5.0	-215.7	2.14	-1.46	1.56
11,995.0	88.40	177.00	10,618.1	-1,383.0	8.8	-228.2	1.56	0.53	-1.47
12,091.0	90.80	177.70	10,618.8	-1,478.9	13.3	-240.2	2.60	2.50	0.73
12,185.0	87.60	176.20	10,620.1	-1,572.7	18.3	-251.3	3.76	-3.40	-1.60
12,280.0	89.90	177.20	10,622.1	-1,667.5	23.7	-262.2	2.64	2.42	1.05
12,375.0	88.70	177.90	10,623.3	-1,762.4	27.8	-274.5	1.46	-1.26	0.74
12,471.0	91.40	179.80	10,623.2	-1,858.4	29.7	-289.0	3.44	2.81	1.98
12,566.0	90.60	179.00	10,621.6	-1,953.4	30.7	-304.3	1.19	-0.84	-0.84
12,661.0	92.50	179.10	10,619.0	-2,048.3	32.3	-319.0	2.00	2.00	0.11
12,756.0	88.60	175.90	10,618.1	-2,143.2	36.4	-331.1	5.31	-4.11	-3.37
12,851.0	92.50	178.40	10,617.2	-2,238.0	41.1	-342.7	4.88	4.11	2.63
12,948.0	89.30	176.90	10,615.6	-2,334.9	45.1	-355.4	3.64	-3.30	-1.55
13,043.0	89.50	173.00	10,616.6	-2,429.5	53.5	-363.4	4.11	0.21	-4.11
13,138.0	87.90	173.40	10,618.8	-2,523.8	64.7	-368.5	1.74	-1.68	0.42
13,233.0	89.30	176.30	10,621.1	-2,618.4	73.3	-376.2	3.39	1.47	3.05
13,327.0	85.20	177.90	10,625.6	-2,712.2	78.0	-387.6	4.68	-4.36	1.70



Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 27-24S-28E Rock Spur 27 W2CN St Com 1H
Well: Rock Spur 27 W2CN St Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Rock Spur 27 W2CN St Com 1H
TVD Reference: 2991+ 27 @ 3018.0usft (Patterson 242)
MD Reference: 2991+ 27 @ 3018.0usft (Patterson 242)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
13,422.0	89.70	178.90	10,629.9	-2,807.0	80.6	-401.3	4.85	4.74	1.05
13,517.0	93.70	182.10	10,627.0	-2,901.9	79.8	-418.3	5.39	4.21	3.37
13,612.0	92.90	183.60	10,621.6	-2,996.7	75.1	-439.2	1.79	-0.84	1.58
13,707.0	93.20	182.80	10,616.5	-3,091.4	69.8	-460.6	0.90	0.32	-0.84
13,802.0	94.20	182.70	10,610.4	-3,186.1	65.3	-481.3	1.06	1.05	-0.11
13,897.0	91.50	182.70	10,605.7	-3,280.8	60.8	-502.0	2.84	-2.84	0.00
13,993.0	92.00	182.80	10,602.7	-3,376.7	56.2	-522.9	0.53	0.52	0.10
14,087.0	90.30	180.40	10,600.8	-3,470.6	53.6	-541.6	3.13	-1.81	-2.55
14,182.0	88.40	178.60	10,601.9	-3,565.6	54.4	-557.0	2.75	-2.00	-1.89
14,277.0	87.40	177.50	10,605.4	-3,660.5	57.6	-570.1	1.56	-1.05	-1.16
14,373.0	88.80	178.80	10,608.6	-3,756.4	60.7	-583.5	1.99	1.46	1.35
14,469.0	88.30	177.70	10,611.0	-3,852.3	63.7	-597.0	1.26	-0.52	-1.15
14,564.0	90.80	180.40	10,611.8	-3,947.3	65.2	-611.7	3.87	2.63	2.84
14,659.0	90.00	178.80	10,611.1	-4,042.3	65.9	-627.3	1.88	-0.84	-1.68
14,754.0	89.40	177.90	10,611.6	-4,137.2	68.6	-640.9	1.14	-0.63	-0.95
14,849.0	89.90	178.20	10,612.2	-4,232.2	71.9	-654.0	0.61	0.53	0.32
14,945.0	88.40	177.30	10,613.6	-4,328.1	75.6	-666.7	1.82	-1.56	-0.94
15,040.0	87.10	175.70	10,617.3	-4,422.8	81.4	-677.2	2.17	-1.37	-1.68
15,135.0	89.40	178.40	10,620.2	-4,517.6	86.3	-688.6	3.73	2.42	2.84
15,230.0	89.10	178.90	10,621.5	-4,612.6	88.5	-702.7	0.61	-0.32	0.53
15,326.0	89.00	179.70	10,623.1	-4,708.6	89.7	-718.0	0.84	-0.10	0.83
15,352.0	89.50	180.40	10,623.4	-4,734.6	89.7	-722.4	3.31	1.92	2.69
15,400.0	89.50	180.40	10,623.8	-4,782.6	89.4	-731.0	0.00	0.00	0.00

15400' MD Projected to Bit - PBHL Rock Spur 27 W2CN St Com 1H

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
373.0	372.8	6.0	7.2	373.0' MD Rig Survey's
15,400.0	10,623.8	-4,782.6	89.4	15400' MD Projected to Bit



May 12, 2017

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 March 28, 2017, through April 15, 2017 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 488 feet to a depth of 15,352 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 Rock Spur 27 W2CN State Com #001H well, API # **30-015-43212** 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



COMPANY: Mewbourne Oil Company
WELL: Rock Spur 27 W2CN St Com 1H
COUNTY: Eddy County, New Mexico
DATUM: NAD 1927 (NADCON CONUS)
RIG: Patterson 242



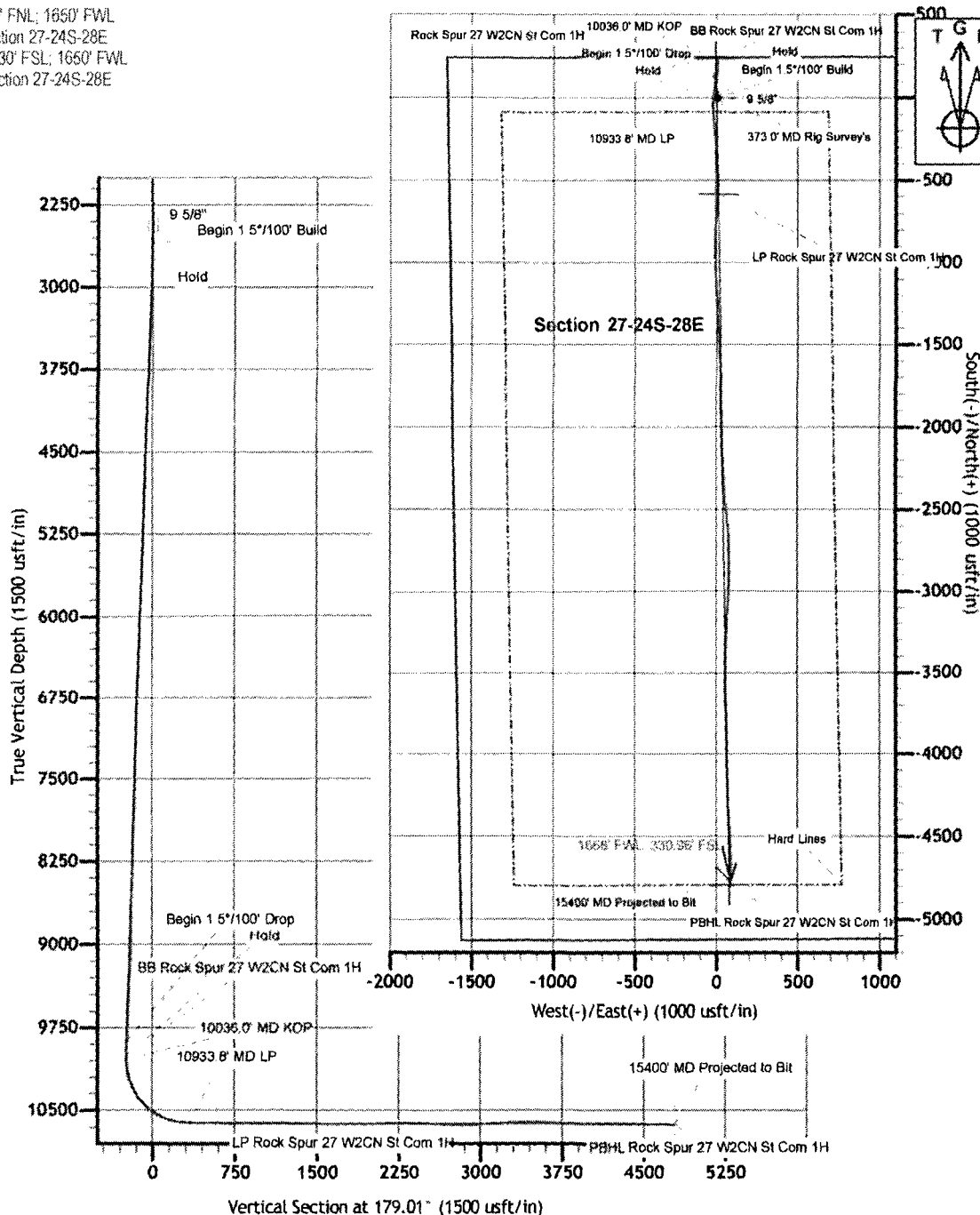
OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.08°

GEODETIC ZONE: New Mexico East 3001									
2991+ 27 @ 3018 Ousht (Patterson 242)									
GROUND ELEVATION: 2991.0									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot			
0.0	0.0	434833.40	578905.40	32° 11' 42.781 N	104° 4' 41.714 W				

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2800.0	0.00	0.00	2800.0	0.0	0.0	0.00	0.00	0.0	
3	2726.0	1.89	359.13	2726.0	2.1	0.0	1.50	358.13	-2.1	
4	9877.9	1.89	359.13	9874.0	237.9	-3.6	0.00	0.00	-238.0	
5	10003.9	0.00	0.00	10000.0	240.0	-3.7	1.50	180.00	-240.0	BB Rock Spur 27 W2CN St Com 1H
6	10036.0	0.00	0.00	10032.1	240.0	-3.7	0.00	0.00	-240.0	
7	10933.8	89.78	179.02	10605.0	-330.7	6.1	10.00	179.02	330.7	
8	15389.7	89.78	179.02	10622.0	-4785.8	82.3	0.00	0.00	4786.6	PBHL Rock Spur 27 W2CN St Com 1H

SHL: 250' FNL: 1850' FWL
Section 27-24S-28E
PBHL: 330' FSL: 1650' FWL
Section 27-24S-28E



Azimuths to Grid North
True North: -0.14°
Magnetic North: 7.08°
Magnetic Field
Strength: 47894.25nT
Dip Angle: 59.96°
Date: 3/22/2017
Model: IGRF2015