



NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 25 2019

RECEIVED

Mewbourne Oil Company

Eddy County, N.M. Nad (83)

Section 32-23S-28E Zeppelin 32

Zeppelin 32 W0MP St Com 2H

Original Hole

Design: Original Hole

Standard Survey Report

26 July, 2019

STRYKER
DIRECTIONAL



Stryker Energy Directional Services
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Zeppelin 32 WOMP St Com 2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3097 + 27 @ 3124.0usft (Patterson 217)
Site:	Section 32-23S-28E Zeppelin 32	MD Reference:	3097 + 27 @ 3124.0usft (Patterson 217)
Well:	Zeppelin 32 WOMP St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Project	Eddy County, N.M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Section 32-23S-28E Zeppelin 32		
Site Position:		Northing:	457,396.60 usft
From:	Map	Easting:	608,120.50 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 26.185 N
		Longitude:	104° 7' 2.247 W
		Grid Convergence:	0.12 °

Well	Zeppelin 32 WOMP St Com 2H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 15' 25.890 N
		Longitude:	104° 7' 2.251 W
		Ground Level:	3,097.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/03/19	7.00	59.98	47,700.67850139

Design	Original Hole			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	96.95

Survey Program	Date 07/26/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
405.0	14,280.0	Stryker MWD (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM

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
405.0	3.00	347.50	404.8	10.3	-2.3	-3.5	0.74	0.74	0.00
494.0	1.20	336.10	493.8	13.5	-3.2	-4.8	2.07	-2.02	-12.81
616.0	0.50	146.20	615.7	14.2	-3.4	-5.1	1.39	-0.57	139.43
737.0	0.30	151.60	736.7	13.5	-3.0	-4.6	0.17	-0.17	4.46
926.0	0.50	151.30	925.7	12.3	-2.3	-3.8	0.11	0.11	-0.16
1,116.0	0.60	191.80	1,115.7	10.6	-2.1	-3.4	0.21	0.05	21.32
1,305.0	0.40	188.90	1,304.7	9.0	-2.4	-3.5	0.11	-0.11	-1.53
1,494.0	0.70	212.80	1,493.7	7.4	-3.2	-4.0	0.20	0.16	12.65
1,682.0	0.70	104.50	1,681.7	6.1	-2.7	-3.4	0.60	0.00	-57.61



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Well:	Zeppelin 32 WOMP St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
1,871.0	0.70	99.50	1,870.7	5.6	-0.4	-1.1	0.03	0.00	-2.65
2,060.0	2.20	86.70	2,059.6	5.7	4.3	3.6	0.81	0.79	-6.77
2,250.0	1.70	189.20	2,249.6	3.1	7.5	7.1	1.61	-0.26	53.95
2,438.0	0.30	163.80	2,437.5	-0.1	7.2	7.2	0.76	-0.74	-13.51
2,491.0	0.50	160.90	2,490.5	-0.5	7.3	7.3	0.38	0.38	-5.47
2,584.0	0.20	190.20	2,583.5	-1.0	7.4	7.5	0.37	-0.32	31.51
2,678.0	2.70	211.60	2,677.5	-3.1	6.3	6.6	2.68	2.66	22.77
2,773.0	5.30	213.40	2,772.2	-8.6	2.7	3.7	2.74	2.74	1.89
2,867.0	5.30	214.90	2,865.8	-15.8	-2.2	-0.3	0.15	0.00	1.60
3,055.0	4.90	218.60	3,053.1	-29.2	-12.2	-8.6	0.28	-0.21	1.97
3,245.0	4.70	220.50	3,242.4	-41.5	-22.3	-17.1	0.13	-0.11	1.00
3,434.0	5.50	213.70	3,430.7	-54.9	-32.4	-25.5	0.53	0.42	-3.60
3,622.0	5.60	214.70	3,617.8	-69.9	-42.6	-33.8	0.07	0.05	0.53
3,812.0	5.30	215.70	3,806.9	-84.7	-53.0	-42.3	0.17	-0.16	0.53
4,001.0	4.90	218.10	3,995.2	-98.1	-63.0	-50.7	0.24	-0.21	1.27
4,190.0	5.10	219.80	4,183.5	-110.9	-73.4	-59.4	0.13	0.11	0.90
4,379.0	5.00	218.30	4,371.7	-123.9	-83.9	-68.3	0.09	-0.05	-0.79
4,568.0	4.60	214.50	4,560.1	-136.6	-93.3	-76.1	0.27	-0.21	-2.01
4,757.0	4.60	217.40	4,748.5	-148.8	-102.2	-83.4	0.12	0.00	1.53
4,947.0	4.00	216.00	4,937.9	-160.2	-110.7	-90.5	0.32	-0.32	-0.74
5,136.0	4.60	209.10	5,126.4	-172.2	-118.3	-96.6	0.42	0.32	-3.65
5,325.0	3.90	202.20	5,314.9	-184.8	-124.4	-101.1	0.46	-0.37	-3.65
5,514.0	4.80	208.20	5,503.3	-197.7	-130.5	-105.7	0.53	0.48	3.17
5,704.0	4.70	208.20	5,692.7	-211.6	-138.0	-111.4	0.05	-0.05	0.00
5,893.0	5.10	216.60	5,881.0	-225.1	-146.6	-118.3	0.43	0.21	4.44
6,082.0	4.50	215.60	6,069.3	-237.9	-156.0	-126.0	0.32	-0.32	-0.53
6,272.0	4.30	214.10	6,258.8	-249.9	-164.3	-132.9	0.12	-0.11	-0.79
6,462.0	5.30	225.60	6,448.1	-261.9	-174.6	-141.6	0.73	0.53	6.05
6,652.0	3.00	219.50	6,637.6	-271.9	-184.0	-149.8	1.23	-1.21	-3.21
6,841.0	4.60	203.90	6,826.2	-282.6	-190.2	-154.6	1.00	0.85	-8.25
7,030.0	4.90	201.40	7,014.5	-297.1	-196.2	-158.9	0.19	0.16	-1.32
7,220.0	4.30	213.70	7,203.9	-310.6	-203.1	-164.1	0.61	-0.32	6.47
7,409.0	5.40	225.30	7,392.3	-322.7	-213.4	-172.8	0.78	0.58	6.14
7,598.0	4.50	225.00	7,580.5	-334.2	-225.0	-182.9	0.48	-0.48	-0.16
7,787.0	5.60	231.60	7,768.8	-345.2	-237.4	-193.9	0.66	0.58	3.49
7,976.0	5.10	215.40	7,957.0	-357.7	-249.5	-204.4	0.84	-0.26	-8.57
8,166.0	3.40	225.90	8,146.5	-368.6	-258.5	-212.0	0.98	-0.89	5.53
8,355.0	2.90	253.40	8,335.2	-373.8	-267.1	-219.9	0.83	-0.26	14.55
8,545.0	3.30	279.80	8,524.9	-374.3	-277.1	-229.8	0.77	0.21	13.89
8,734.0	1.50	290.20	8,713.8	-372.5	-284.8	-237.6	0.98	-0.95	5.50
8,911.0	1.90	275.20	8,890.7	-371.4	-289.8	-242.8	0.34	0.23	-8.47
8,919.7	1.95	278.31	8,899.3	-371.4	-290.1	-243.1	1.34	0.58	35.94
B.B. Zeppelin 32 WOMP St Com 2H									
8,966.0	2.30	292.20	8,945.6	-370.9	-291.8	-244.8	1.34	0.76	29.97



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
9,013.0	2.80	87.70	8,992.6	-370.5	-291.5	-244.5	10.61	1.06	330.85
9,060.0	9.60	100.00	9,039.3	-371.1	-286.5	-239.5	14.66	14.47	26.17
9,107.0	15.60	94.40	9,085.2	-372.3	-276.3	-229.3	13.01	12.77	-11.91
9,155.0	21.50	95.40	9,130.7	-373.6	-261.1	-214.0	12.31	12.29	2.08
9,202.0	26.90	98.70	9,173.5	-376.1	-242.0	-194.8	11.84	11.49	7.02
9,249.0	32.90	102.70	9,214.2	-380.5	-219.0	-171.4	13.45	12.77	8.51
9,296.0	41.10	107.10	9,251.8	-387.8	-191.8	-143.4	18.32	17.45	9.36
9,344.0	49.40	110.30	9,285.5	-398.8	-159.5	-110.1	17.92	17.29	6.67
9,391.0	53.10	110.30	9,314.9	-411.5	-125.2	-74.5	7.87	7.87	0.00
9,438.0	56.00	110.30	9,342.2	-424.8	-89.3	-37.2	6.17	6.17	0.00
9,485.0	59.30	109.00	9,367.3	-438.2	-51.9	1.5	7.40	7.02	-2.77
9,533.0	62.90	108.40	9,390.5	-451.6	-12.1	42.7	7.58	7.50	-1.25
9,580.0	66.60	107.20	9,410.6	-464.6	28.4	84.4	8.20	7.87	-2.55
9,627.0	71.70	106.90	9,427.3	-477.5	70.4	127.6	10.87	10.85	-0.64
9,674.0	75.90	106.80	9,440.4	-490.6	113.6	172.1	8.94	8.94	-0.21
9,712.0	81.80	107.10	9,447.8	-501.4	149.2	208.8	15.55	15.53	0.79
9,797.0	87.60	102.80	9,455.6	-523.2	230.9	292.5	8.48	6.82	-5.06
9,829.0	88.30	101.50	9,456.8	-530.0	262.2	324.4	4.61	2.19	-4.06
9,861.0	89.70	99.40	9,457.3	-535.8	293.7	356.3	7.89	4.38	-6.56
9,955.0	88.40	97.30	9,458.9	-549.4	386.6	450.3	2.63	-1.38	-2.23
10,048.7	90.99	97.00	9,459.4	-561.1	479.6	543.9	2.78	2.77	-0.32
LP Zeppelin 32 WOMP St Com 2H									
10,049.0	91.00	97.00	9,459.4	-561.1	479.9	544.3	2.78	2.77	-0.32
10,144.0	88.70	96.40	9,459.6	-572.2	574.2	639.2	2.50	-2.42	-0.63
10,239.0	85.10	95.10	9,464.7	-581.7	668.6	734.1	4.03	-3.79	-1.37
10,334.0	88.60	95.10	9,470.0	-590.1	763.1	828.9	3.68	3.68	0.00
10,428.0	90.60	95.00	9,470.6	-598.4	856.7	922.8	2.13	2.13	-0.11
10,523.0	88.20	92.00	9,471.6	-604.2	951.5	1,017.6	4.04	-2.53	-3.16
10,617.0	84.70	89.60	9,477.4	-605.5	1,045.3	1,110.9	4.51	-3.72	-2.55
10,712.0	89.40	89.90	9,482.3	-605.1	1,140.1	1,205.0	4.96	4.95	0.32
10,807.0	91.30	89.80	9,481.7	-604.9	1,235.1	1,299.2	2.00	2.00	-0.11
10,901.0	90.30	91.40	9,480.4	-605.8	1,329.1	1,392.6	2.01	-1.06	1.70
10,996.0	90.20	90.50	9,480.0	-607.4	1,424.1	1,487.1	0.95	-0.11	-0.95
11,091.0	87.30	88.60	9,482.1	-606.7	1,519.1	1,581.3	3.65	-3.05	-2.00
11,185.0	87.90	89.50	9,486.0	-605.1	1,613.0	1,674.3	1.15	0.64	0.96
11,280.0	88.70	88.00	9,488.8	-603.0	1,707.9	1,768.3	1.79	0.84	-1.58
11,375.0	89.40	87.90	9,490.4	-599.6	1,802.8	1,862.1	0.74	0.74	-0.11
11,470.0	87.80	90.20	9,492.7	-598.1	1,897.8	1,956.2	2.95	-1.68	2.42
11,564.0	87.60	90.90	9,496.5	-599.0	1,991.7	2,049.5	0.77	-0.21	0.74
11,659.0	87.60	92.20	9,500.5	-601.5	2,086.6	2,144.0	1.37	0.00	1.37
11,753.0	91.50	91.30	9,501.2	-604.4	2,180.5	2,237.6	4.26	4.15	-0.96
11,848.0	89.70	90.10	9,500.2	-605.6	2,275.5	2,332.0	2.28	-1.89	-1.26
11,942.0	89.10	89.50	9,501.2	-605.2	2,369.5	2,425.3	0.90	-0.64	-0.64



Stryker Energy Directional Services

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Well:	Zeppelin 32 WOMP St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
12,037.0	84.70	89.20	9,506.4	-604.2	2,464.3	2,519.3	4.64	-4.63	-0.32
12,131.0	89.70	90.50	9,510.9	-603.9	2,558.2	2,612.4	5.50	5.32	1.38
12,225.0	89.20	90.50	9,511.8	-604.7	2,652.2	2,705.8	0.53	-0.53	0.00
12,320.0	86.40	89.10	9,515.5	-604.4	2,747.1	2,800.0	3.29	-2.95	-1.47
12,415.0	87.20	90.00	9,520.8	-603.7	2,841.9	2,894.1	1.27	0.84	0.95
12,510.0	87.90	91.10	9,524.9	-604.6	2,936.8	2,988.4	1.37	0.74	1.16
12,604.0	86.60	91.10	9,529.4	-606.4	3,030.7	3,081.8	1.38	-1.38	0.00
12,699.0	90.70	91.70	9,531.6	-608.7	3,125.6	3,176.3	4.36	4.32	0.63
12,794.0	84.80	91.00	9,535.3	-610.9	3,220.5	3,270.7	6.25	-6.21	-0.74
12,889.0	84.70	90.70	9,544.0	-612.3	3,315.1	3,364.8	0.33	-0.11	-0.32
12,983.0	90.80	91.00	9,547.7	-613.7	3,409.0	3,458.2	6.50	6.49	0.32
13,079.0	89.90	89.90	9,547.1	-614.5	3,504.9	3,553.5	1.48	-0.94	-1.15
13,173.0	89.10	90.30	9,547.9	-614.7	3,598.9	3,646.9	0.95	-0.85	0.43
13,268.0	89.80	88.70	9,548.9	-613.8	3,693.9	3,741.1	1.84	0.74	-1.68
13,362.0	88.20	86.90	9,550.5	-610.2	3,787.8	3,833.8	2.56	-1.70	-1.91
13,457.0	89.60	85.20	9,552.3	-603.7	3,882.6	3,927.1	2.32	1.47	-1.79
13,552.0	91.90	86.20	9,551.1	-596.6	3,977.3	4,020.3	2.64	2.42	1.05
13,647.0	91.00	84.60	9,548.7	-588.9	4,072.0	4,113.3	1.93	-0.95	-1.68
13,741.0	92.30	87.70	9,546.0	-582.6	4,165.7	4,205.6	3.57	1.38	3.30
13,832.0	90.40	88.40	9,543.8	-579.5	4,256.6	4,295.5	2.23	-2.09	0.77
13,927.0	90.90	89.00	9,542.7	-577.4	4,351.6	4,389.5	0.82	0.53	0.63
14,022.0	89.60	89.10	9,542.3	-575.8	4,446.6	4,483.6	1.37	-1.37	0.11
14,117.0	90.00	89.40	9,542.7	-574.6	4,541.6	4,577.7	0.53	0.42	0.32
14,213.0	90.20	89.60	9,542.5	-573.7	4,637.6	4,672.9	0.29	0.21	0.21
14,280.0	90.20	89.60	9,542.3	-573.3	4,704.6	4,739.4	0.00	0.00	0.00
PBHL Zeppelin 32 WOMP St Com 2H									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,280.0	9,542.3	-573.3	4,704.6	14280.0' Projected to bit

Checked By: _____	Approved By: _____	Date: _____
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