



COMPANY: Mewbourne Oil Company
 WELL: Red Hills West Unit #14H
 COUNTY: Lea County N.M.
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson 250

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.74°

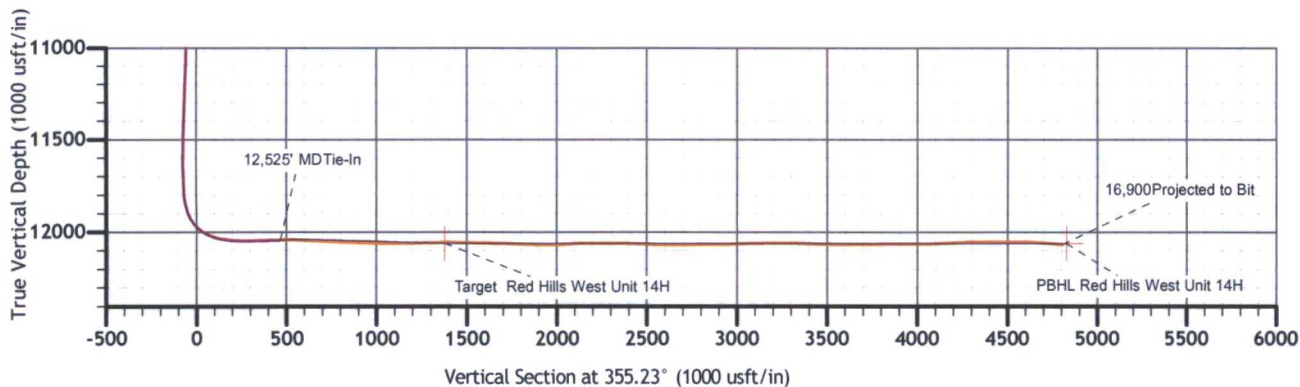
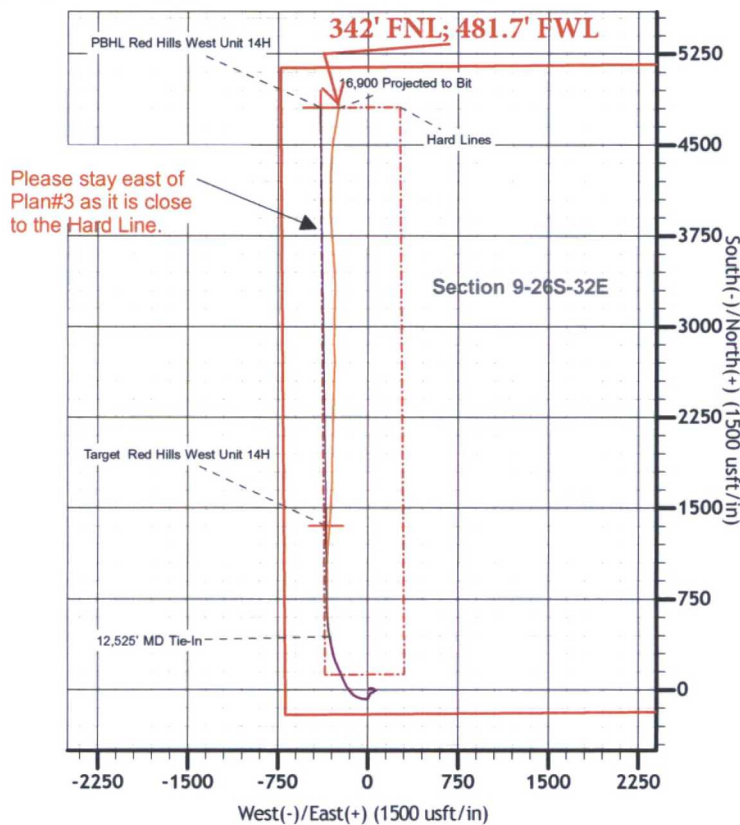
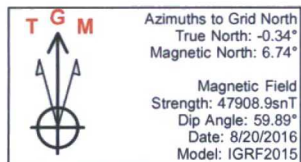


OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico East 3001					
3204 + 27 @ 3231.0usft (Patterson 250)					
GROUND ELEVATION: 3204.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	382762.90	700591.20	32° 3' 2.437 N	103° 41' 9.253 W
Slot					

PLAN SECTIONS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
1	12525.0	92.13	349.06	12043.1	439.0	-319.3	0.00	0.00	464.0		
2	12807.1	88.30	359.67	12042.1	719.3	-346.9	4.00	109.79	745.7		
3	13443.5	88.30	359.67	12061.0	1355.4	-350.5	0.00	0.00	1379.9	Target	Red Hills West Unit 14H
4	13503.4	90.01	359.15	12061.9	1415.3	-351.1	3.00	-16.87	1439.6		
5	16898.8	90.01	359.15	12061.0	4810.3	-401.3	0.00	0.00	4827.0	PBHL	Red Hills West Unit 14H

SHL: 200' FSL; 690' FWL
 Section 9-26S-32E
 PBHL: 330' FNL; 330' FWL
 Section 9-26S-32E





Mewbourne Oil Company .

Lea County N.M.

Section 9-26S-32E Red Hills West Unit #14H

Red Hills West Unit #14H

Original Hole

Design: Original Hole

NM OIL CONSERVATION
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Standard Survey Report

06 September, 2016





Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West Unit #14H
Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Project	Lea County N.M.		
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 9-26S-32E Red Hills West Unit #14H		
Site Position:		Northing:	382,762.90 usft
From:	Map	Easting:	700,591.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 2.437 N
		Longitude:	103° 41' 9.253 W
		Grid Convergence:	0.34 °

Well	Red Hills West Unit #14H		
Well Position	+N/-S	0.0 usft	Northing: 382,762.90 usft
	+E/-W	0.0 usft	Easting: 700,591.20 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 3' 2.437 N
		Longitude:	103° 41' 9.253 W
		Ground Level:	3,204.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/20/2016	7.08	59.89	47,909

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	323.97

Survey Program	Date 9/6/2016				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	12,525.0	Schlumberger MWD Survey (Original Hole)	MWD	MWD v3:standard declination	
12,544.0	16,900.0	Stryker MWD Survey #2 (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	
100.0	0.08	95.29	100.0	0.0	0.1	0.0	0.08	0.08	0.00	
200.0	0.22	45.48	200.0	0.1	0.3	-0.1	0.18	0.14	-49.81	
300.0	0.08	190.31	300.0	0.2	0.4	-0.1	0.29	-0.14	144.83	
400.0	0.12	66.89	400.0	0.2	0.5	-0.2	0.18	0.04	-123.42	
500.0	0.28	201.83	500.0	0.0	0.5	-0.3	0.37	0.16	134.94	
600.0	0.24	133.70	600.0	-0.4	0.6	-0.6	0.29	-0.04	-68.13	
700.0	1.25	96.10	700.0	-0.7	1.8	-1.6	1.07	1.01	-37.60	
800.0	1.37	87.08	800.0	-0.7	4.1	-3.0	0.24	0.12	-9.02	
900.0	1.33	24.18	899.9	0.4	5.7	-3.0	1.41	-0.04	-62.90	



Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Red Hills West Unit #14H
Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	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	1.86	10.19	999.9	3.1	6.5	-1.3	0.65	0.53	-13.99
1,100.0	2.62	21.58	1,099.8	6.8	7.6	1.0	0.88	0.76	11.39
1,200.0	2.43	17.48	1,199.7	10.9	9.1	3.5	0.26	-0.19	-4.10
1,300.0	0.70	59.54	1,299.7	13.3	10.3	4.7	1.97	-1.73	42.06
1,400.0	0.24	96.75	1,399.7	13.6	11.0	4.5	0.53	-0.46	37.21
1,500.0	0.47	15.21	1,499.7	13.9	11.3	4.6	0.50	0.23	-81.54
1,600.0	0.60	142.18	1,599.7	13.9	11.7	4.3	0.96	0.13	126.97
1,700.0	0.57	160.05	1,699.7	13.0	12.2	3.3	0.18	-0.03	17.87
1,800.0	0.16	103.28	1,799.7	12.5	12.5	2.8	0.50	-0.41	-56.77
1,900.0	0.32	153.92	1,899.7	12.2	12.8	2.4	0.25	0.16	50.64
2,000.0	0.54	140.84	1,999.7	11.6	13.2	1.6	0.24	0.22	-13.08
2,100.0	0.53	225.88	2,099.7	10.9	13.2	1.1	0.72	-0.01	85.04
2,200.0	0.82	239.87	2,199.7	10.3	12.2	1.1	0.33	0.29	13.99
2,300.0	1.25	241.05	2,299.6	9.4	10.7	1.3	0.43	0.43	1.18
2,400.0	1.54	242.81	2,399.6	8.2	8.5	1.6	0.29	0.29	1.76
2,500.0	1.91	250.45	2,499.6	7.1	5.7	2.3	0.43	0.37	7.64
2,600.0	1.68	275.07	2,599.5	6.6	2.7	3.8	0.80	-0.23	24.62
2,700.0	0.73	329.88	2,699.5	7.3	0.9	5.4	1.39	-0.95	54.81
2,800.0	0.76	9.72	2,799.5	8.5	0.7	6.5	0.51	0.03	39.84
2,900.0	0.95	23.40	2,899.5	9.9	1.2	7.3	0.28	0.19	13.68
3,000.0	0.86	69.34	2,999.5	11.0	2.2	7.6	0.71	-0.09	45.94
3,100.0	0.92	87.95	3,099.5	11.2	3.7	6.9	0.29	0.06	18.61
3,200.0	1.22	69.54	3,199.4	11.6	5.5	6.2	0.45	0.30	-18.41
3,300.0	2.10	86.15	3,299.4	12.1	8.3	4.9	0.99	0.88	16.61
3,400.0	2.22	92.44	3,399.3	12.2	12.1	2.7	0.27	0.12	6.29
3,500.0	1.55	91.05	3,499.3	12.1	15.4	0.7	0.67	-0.67	-1.39
3,600.0	1.96	68.70	3,599.2	12.7	18.3	-0.5	0.79	0.41	-22.35
3,700.0	1.77	65.85	3,699.2	13.9	21.3	-1.3	0.21	-0.19	-2.85
3,800.0	2.58	70.32	3,799.1	15.3	24.9	-2.2	0.83	0.81	4.47
3,900.0	2.44	89.45	3,899.0	16.1	29.1	-4.1	0.85	-0.14	19.13
4,000.0	1.71	103.32	3,998.9	15.8	32.7	-6.5	0.88	-0.73	13.87
4,100.0	2.09	108.55	4,098.9	14.8	35.9	-9.1	0.42	0.38	5.23
4,200.0	3.46	114.72	4,198.8	13.0	40.3	-13.2	1.40	1.37	6.17
4,300.0	3.42	121.30	4,298.6	10.2	45.6	-18.6	0.40	-0.04	6.58
4,400.0	2.59	128.18	4,398.4	7.2	50.0	-23.5	0.90	-0.83	6.88
4,500.0	1.52	124.19	4,498.4	5.1	52.8	-26.9	1.08	-1.07	-3.99
4,600.0	1.28	126.34	4,598.4	3.7	54.8	-29.3	0.25	-0.24	2.15
4,700.0	1.11	115.84	4,698.3	2.6	56.6	-31.2	0.28	-0.17	-10.50
4,800.0	0.90	94.18	4,798.3	2.1	58.2	-32.5	0.43	-0.21	-21.66
4,900.0	0.93	114.85	4,898.3	1.7	59.8	-33.8	0.33	0.03	20.67
5,000.0	1.58	94.45	4,998.3	1.3	61.9	-35.4	0.78	0.65	-20.40
5,100.0	0.98	114.20	5,098.3	0.8	64.0	-37.0	0.74	-0.60	19.75
5,200.0	0.40	178.08	5,198.2	0.1	64.8	-38.0	0.88	-0.58	63.88



Stryker Directional Survey Report



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Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	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)	
5,300.0	0.90	147.72	5,298.2	-0.9	65.3	-39.1	0.59	0.50	-30.36	
5,400.0	0.49	175.97	5,398.2	-2.0	65.7	-40.2	0.52	-0.41	28.25	
5,500.0	0.96	232.25	5,498.2	-2.9	65.1	-40.6	0.80	0.47	56.28	
5,600.0	0.45	238.47	5,598.2	-3.6	64.1	-40.6	0.51	-0.51	6.22	
5,700.0	0.49	252.92	5,698.2	-4.0	63.3	-40.5	0.12	0.04	14.45	
5,800.0	0.35	266.88	5,798.2	-4.1	62.6	-40.1	0.17	-0.14	13.96	
5,900.0	0.32	291.23	5,898.2	-4.0	62.1	-39.7	0.14	-0.03	24.35	
6,000.0	0.19	67.41	5,998.2	-3.9	61.9	-39.6	0.48	-0.13	136.18	
6,100.0	0.34	321.68	6,098.2	-3.6	61.9	-39.3	0.43	0.15	-105.73	
6,200.0	0.69	277.82	6,198.2	-3.2	61.1	-38.6	0.50	0.35	-43.86	
6,300.0	0.86	250.45	6,298.2	-3.4	59.8	-38.0	0.40	0.17	-27.37	
6,400.0	0.66	254.23	6,398.2	-3.8	58.6	-37.5	0.21	-0.20	3.78	
6,500.0	0.55	274.17	6,498.2	-3.9	57.5	-37.0	0.24	-0.11	19.94	
6,600.0	0.47	284.68	6,598.2	-3.8	56.7	-36.4	0.12	-0.08	10.51	
6,700.0	0.55	225.89	6,698.2	-4.0	55.9	-36.2	0.51	0.08	-58.79	
6,800.0	0.69	234.93	6,798.2	-4.7	55.1	-36.2	0.17	0.14	9.04	
6,900.0	0.41	251.83	6,898.2	-5.2	54.2	-36.1	0.32	-0.28	16.90	
7,000.0	0.44	265.80	6,998.2	-5.3	53.5	-35.8	0.11	0.03	13.97	
7,100.0	0.36	95.77	7,098.2	-5.4	53.5	-35.8	0.80	-0.08	-170.03	
7,200.0	0.08	101.26	7,198.2	-5.4	53.8	-36.0	0.28	-0.28	5.49	
7,300.0	0.19	212.69	7,298.2	-5.6	53.8	-36.2	0.23	0.11	111.43	
7,400.0	0.16	193.41	7,398.2	-5.8	53.7	-36.3	0.07	-0.03	-19.28	
7,500.0	0.30	279.40	7,498.2	-5.9	53.4	-36.2	0.33	0.14	85.99	
7,600.0	0.10	90.13	7,598.2	-5.9	53.2	-36.1	0.40	-0.20	170.73	
7,700.0	0.38	220.22	7,698.2	-6.1	53.1	-36.2	0.45	0.28	130.09	
7,800.0	0.73	226.92	7,798.2	-6.8	52.4	-36.4	0.36	0.35	6.70	
7,900.0	0.70	233.06	7,898.1	-7.6	51.5	-36.5	0.08	-0.03	6.14	
8,000.0	0.57	232.37	7,998.1	-8.3	50.6	-36.5	0.13	-0.13	-0.69	
8,100.0	0.53	239.39	8,098.1	-8.8	49.8	-36.4	0.08	-0.04	7.02	
8,200.0	0.75	254.53	8,198.1	-9.3	48.8	-36.2	0.28	0.22	15.14	
8,300.0	0.92	183.02	8,298.1	-10.2	48.1	-36.6	0.99	0.17	-71.51	
8,400.0	1.31	212.89	8,398.1	-12.0	47.4	-37.6	0.69	0.39	29.87	
8,500.0	1.14	217.92	8,498.1	-13.7	46.2	-38.3	0.20	-0.17	5.03	
8,600.0	1.42	230.77	8,598.1	-15.3	44.6	-38.6	0.40	0.28	12.85	
8,700.0	1.29	244.75	8,698.0	-16.6	42.7	-38.5	0.35	-0.13	13.98	
8,800.0	1.85	254.64	8,798.0	-17.5	40.1	-37.7	0.62	0.56	9.89	
8,900.0	3.25	244.83	8,897.9	-19.1	36.0	-36.6	1.46	1.40	-9.81	
9,000.0	3.24	234.23	8,997.7	-22.0	31.1	-36.1	0.60	-0.01	-10.60	
9,100.0	2.75	254.91	9,097.6	-24.2	26.5	-35.2	1.18	-0.49	20.68	
9,200.0	2.12	264.05	9,197.5	-25.1	22.3	-33.4	0.74	-0.63	9.14	
9,300.0	1.49	271.59	9,297.5	-25.2	19.2	-31.7	0.67	-0.63	7.54	
9,400.0	1.10	211.83	9,397.4	-26.0	17.4	-31.3	1.33	-0.39	-59.76	
9,500.0	1.39	206.78	9,497.4	-27.9	16.3	-32.2	0.31	0.29	-5.05	



Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Red Hills West Unit #14H
Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	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)
9,600.0	1.47	209.99	9,597.4	-30.1	15.1	-33.2	0.11	0.08	3.21
9,700.0	1.49	201.65	9,697.3	-32.4	14.0	-34.5	0.22	0.02	-8.34
9,800.0	1.19	219.44	9,797.3	-34.4	12.9	-35.4	0.51	-0.30	17.79
9,900.0	0.69	112.88	9,897.3	-35.5	12.8	-36.2	1.54	-0.50	-106.56
10,000.0	1.45	137.61	9,997.3	-36.6	14.2	-38.0	0.87	0.76	24.73
10,100.0	1.58	155.97	10,097.3	-38.8	15.6	-40.6	0.50	0.13	18.36
10,200.0	1.33	156.67	10,197.2	-41.1	16.6	-43.1	0.25	-0.25	0.70
10,300.0	1.06	265.45	10,297.2	-42.3	16.2	-43.7	1.95	-0.27	108.78
10,400.0	2.32	210.90	10,397.2	-44.1	14.2	-44.0	1.91	1.26	-54.55
10,500.0	3.13	231.58	10,497.1	-47.5	11.0	-44.9	1.26	0.81	20.68
10,600.0	3.02	243.59	10,596.9	-50.4	6.5	-44.6	0.65	-0.11	12.01
10,700.0	2.54	249.55	10,696.8	-52.3	2.1	-43.6	0.56	-0.48	5.96
10,800.0	1.34	226.50	10,796.7	-53.9	-0.8	-43.1	1.41	-1.20	-23.05
10,900.0	0.99	196.59	10,896.7	-55.6	-1.9	-43.8	0.69	-0.35	-29.91
11,000.0	1.36	150.11	10,996.7	-57.4	-1.6	-45.5	0.99	0.37	-46.48
11,100.0	1.57	154.28	11,096.7	-59.7	-0.4	-48.0	0.24	0.21	4.17
11,200.0	1.67	155.20	11,196.6	-62.2	0.8	-50.8	0.10	0.10	0.92
11,215.0	1.74	152.02	11,211.6	-62.6	1.0	-51.2	0.78	0.47	-21.20
11,310.0	2.10	184.86	11,306.6	-65.6	1.5	-54.0	1.20	0.38	34.57
11,404.0	2.68	197.31	11,400.5	-69.5	0.7	-56.6	0.82	0.62	13.24
11,435.0	2.66	196.07	11,431.5	-70.8	0.3	-57.5	0.20	-0.06	-4.00
11,466.0	2.50	188.00	11,462.4	-72.2	0.0	-58.4	1.28	-0.52	-26.03
11,497.0	2.28	185.61	11,493.4	-73.5	-0.1	-59.3	0.78	-0.71	-7.71
11,528.0	2.45	225.10	11,524.4	-74.6	-0.7	-59.9	5.18	0.55	127.39
11,560.0	3.53	253.85	11,556.3	-75.3	-2.1	-59.7	5.67	3.38	89.84
11,591.0	4.87	272.88	11,587.3	-75.5	-4.3	-58.5	6.18	4.32	61.39
11,622.0	6.32	278.68	11,618.1	-75.2	-7.3	-56.5	5.01	4.68	18.71
11,653.0	8.32	279.21	11,648.8	-74.6	-11.2	-53.7	6.46	6.45	1.71
11,684.0	10.27	277.43	11,679.4	-73.9	-16.2	-50.2	6.36	6.29	-5.74
11,715.0	11.67	270.66	11,709.9	-73.5	-22.1	-46.4	6.13	4.52	-21.84
11,746.0	12.83	273.79	11,740.2	-73.2	-28.6	-42.4	4.31	3.74	10.10
11,777.0	14.97	276.86	11,770.3	-72.5	-36.0	-37.4	7.30	6.90	9.90
11,808.0	18.62	279.31	11,799.9	-71.2	-44.9	-31.2	11.99	11.77	7.90
11,839.0	22.87	283.39	11,828.9	-69.0	-55.6	-23.1	14.47	13.71	13.16
11,870.0	27.79	286.34	11,856.9	-65.6	-68.4	-12.8	16.38	15.87	9.52
11,902.0	34.14	292.19	11,884.4	-60.1	-83.9	0.8	21.94	19.84	18.28
11,933.0	39.37	299.02	11,909.2	-52.0	-100.6	17.1	21.39	16.87	22.03
11,964.0	43.15	305.99	11,932.5	-41.0	-117.8	36.1	19.18	12.19	22.48
11,995.0	47.72	314.24	11,954.3	-26.8	-134.6	57.5	24.00	14.74	26.61
12,026.0	51.89	321.29	11,974.3	-9.2	-150.5	81.0	21.96	13.45	22.74
12,058.0	56.85	325.92	11,992.9	11.7	-165.9	107.0	19.45	15.50	14.47
12,089.0	62.85	330.33	12,008.5	34.5	-180.0	133.7	22.93	19.35	14.23
12,170.0	77.62	338.75	12,035.9	103.1	-212.4	208.3	20.67	18.23	10.40
12,201.0	82.44	337.19	12,041.2	131.4	-223.9	238.0	16.32	15.55	-5.03



Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Red Hills West Unit #14H
Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	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)
12,232.0	86.35	334.94	12,044.3	159.6	-236.4	268.1	14.53	12.61	-7.26
12,263.0	87.00	334.76	12,046.1	187.6	-249.5	298.5	2.18	2.10	-0.58
12,295.0	87.83	335.88	12,047.5	216.7	-262.9	329.8	4.35	2.59	3.50
12,326.0	89.90	339.48	12,048.1	245.3	-274.6	360.0	13.39	6.68	11.61
12,357.0	91.07	344.84	12,047.9	274.8	-284.1	389.4	17.70	3.77	17.29
12,388.0	91.44	346.83	12,047.2	304.9	-291.7	418.2	6.53	1.19	6.42
12,420.0	91.72	347.72	12,046.3	336.1	-298.8	447.5	2.91	0.88	2.78
12,463.0	91.72	349.13	12,045.0	378.2	-307.4	486.7	3.28	0.00	3.28
12,494.0	91.55	348.76	12,044.1	408.6	-313.3	514.7	1.31	-0.55	-1.19
12,525.0	92.13	349.06	12,043.1	439.0	-319.3	542.8	2.11	1.87	0.97
12,525' MD Tie-In									
12,544.0	92.40	348.50	12,042.4	457.6	-323.0	560.1	3.27	1.42	-2.95
12,576.0	91.20	352.30	12,041.4	489.2	-328.3	588.7	12.45	-3.75	11.88
12,607.0	88.50	355.70	12,041.4	520.0	-331.5	615.5	14.00	-8.71	10.97
12,638.0	89.10	355.70	12,042.1	550.9	-333.9	641.9	1.94	1.94	0.00
12,669.0	88.80	355.50	12,042.7	581.8	-336.3	668.3	1.16	-0.97	-0.65
12,700.0	87.50	357.20	12,043.7	612.7	-338.2	694.5	6.90	-4.19	5.48
12,731.0	86.40	359.00	12,045.3	643.7	-339.3	720.1	6.80	-3.55	5.81
12,762.0	85.70	358.80	12,047.4	674.6	-339.8	745.4	2.35	-2.26	-0.65
12,856.0	87.80	359.50	12,052.8	768.4	-341.2	822.1	2.35	2.23	0.74
12,950.0	88.30	0.10	12,056.0	862.4	-341.6	898.3	0.83	0.53	0.64
13,043.0	88.30	0.20	12,058.7	955.3	-341.3	973.4	0.11	0.00	0.11
13,137.0	88.00	358.50	12,061.8	1,049.3	-342.4	1,050.0	1.84	-0.32	-1.81
13,230.0	92.20	3.80	12,061.6	1,142.2	-340.5	1,124.0	7.27	4.52	5.70
13,324.0	92.20	4.60	12,058.0	1,235.9	-333.6	1,195.7	0.85	0.00	0.85
13,418.0	91.10	4.80	12,055.3	1,329.5	-325.9	1,266.9	1.19	-1.17	0.21
13,511.0	88.60	4.10	12,055.5	1,422.2	-318.7	1,337.7	2.79	-2.69	-0.75
13,605.0	89.10	2.50	12,057.4	1,516.0	-313.3	1,410.4	1.78	0.53	-1.70
13,698.0	89.30	3.90	12,058.7	1,608.9	-308.1	1,482.4	1.52	0.22	1.51
13,792.0	88.50	1.60	12,060.5	1,702.7	-303.6	1,555.7	2.59	-0.85	-2.45
13,885.0	87.10	359.70	12,064.1	1,795.7	-302.6	1,630.2	2.54	-1.51	-2.04
14,005.0	89.30	1.60	12,067.9	1,915.6	-301.2	1,726.4	2.42	1.83	1.58
14,098.0	93.50	2.70	12,065.6	2,008.5	-297.7	1,799.4	4.67	4.52	1.18
14,192.0	91.50	1.10	12,061.5	2,102.3	-294.6	1,873.5	2.72	-2.13	-1.70
14,286.0	90.40	0.90	12,059.9	2,196.3	-293.0	1,948.5	1.19	-1.17	-0.21
14,379.0	89.30	1.30	12,060.2	2,289.3	-291.2	2,022.7	1.26	-1.18	0.43
14,473.0	89.30	2.00	12,061.3	2,383.2	-288.5	2,097.1	0.74	0.00	0.74
14,566.0	87.60	1.60	12,063.8	2,476.1	-285.6	2,170.5	1.88	-1.83	-0.43
14,660.0	88.50	0.60	12,067.0	2,570.1	-283.7	2,245.4	1.43	0.96	-1.06
14,754.0	91.10	1.50	12,067.4	2,664.0	-282.0	2,320.4	2.93	2.77	0.96
14,847.0	91.00	359.20	12,065.7	2,757.0	-281.5	2,395.3	2.48	-0.11	-2.47
14,941.0	89.50	358.00	12,065.3	2,851.0	-283.8	2,472.6	2.04	-1.60	-1.28
15,034.0	91.60	359.70	12,064.4	2,944.0	-285.6	2,548.9	2.91	2.26	1.83



Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Red Hills West Unit #14H
Project:	Lea County N.M.	TVD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Site:	Section 9-26S-32E Red Hills West Unit #14H	MD Reference:	3204 + 27 @ 3231.0usft (Patterson 250)
Well:	Red Hills West Unit #14H	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)
15,128.0	91.60	0.60	12,061.7	3,037.9	-285.4	2,624.7	0.96	0.00	0.96
15,221.0	91.70	1.80	12,059.1	3,130.9	-283.4	2,698.7	1.29	0.11	1.29
15,315.0	89.30	2.30	12,058.2	3,224.8	-280.1	2,772.7	2.61	-2.55	0.53
15,408.0	88.60	0.10	12,059.9	3,317.7	-278.1	2,846.8	2.48	-0.75	-2.37
15,502.0	88.80	358.50	12,062.1	3,411.7	-279.3	2,923.4	1.71	0.21	-1.70
15,596.0	89.50	356.40	12,063.5	3,505.6	-283.4	3,001.8	2.35	0.74	-2.23
15,689.0	89.20	355.10	12,064.5	3,598.3	-290.3	3,080.9	1.43	-0.32	-1.40
15,783.0	89.90	355.10	12,065.3	3,692.0	-298.4	3,161.3	0.74	0.74	0.00
15,876.0	90.80	355.40	12,064.7	3,784.7	-306.1	3,240.8	1.02	0.97	0.32
15,970.0	89.80	355.40	12,064.2	3,878.4	-313.6	3,321.0	1.06	-1.06	0.00
16,063.0	91.30	1.00	12,063.3	3,971.3	-316.5	3,397.9	6.23	1.61	6.02
16,157.0	90.20	359.00	12,062.1	4,065.3	-316.5	3,473.9	2.43	-1.17	-2.13
16,250.0	93.90	1.50	12,058.8	4,158.2	-316.1	3,548.8	4.80	3.98	2.69
16,344.0	91.50	0.90	12,054.3	4,252.0	-314.2	3,623.6	2.63	-2.55	-0.64
16,437.0	89.90	2.00	12,053.2	4,345.0	-311.8	3,697.4	2.09	-1.72	1.18
16,469.0	89.50	1.70	12,053.4	4,377.0	-310.8	3,722.6	1.56	-1.25	-0.94
16,500.0	89.00	1.70	12,053.8	4,408.0	-309.9	3,747.1	1.61	-1.61	0.00
16,531.0	89.80	4.50	12,054.1	4,438.9	-308.2	3,771.2	9.39	2.58	9.03
16,625.0	91.20	9.90	12,053.3	4,532.1	-296.4	3,839.6	5.93	1.49	5.74
16,718.0	87.40	10.00	12,054.4	4,623.7	-280.3	3,904.3	4.09	-4.09	0.11
16,812.0	86.00	9.30	12,059.8	4,716.2	-264.6	3,969.8	1.66	-1.49	-0.74
16,851.0	86.20	9.90	12,062.5	4,754.6	-258.1	3,997.0	1.62	0.51	1.54
16,900.0	86.20	9.90	12,065.7	4,802.8	-249.7	4,031.0	0.00	0.00	0.00

16,900 Projected to Bit

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,525.0	12,043.1	439.0	-319.3	12,525' MD Tie-In
16,900.0	12,065.7	4,802.8	-249.7	16,900 Projected to Bit



September 27, 2016

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
Red Hills West Unit #014H
Red Hills; Wolfcamp (Gas)
Lea County, New Mexico
API# 30-025-43136

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>
Charlie Secoy	Original Hole	12,544ft. to 16,851ft.	08-20-16 to 09-01-16	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\Red Hills West Unit #014H\M161066

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



HOBBS OCD

DEC 13 2016

RECEIVED

September 27, 2016

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 20, 2016, through September 01, 2016 conduct or supervise the taking of a SEDS Original MWD Survey from a depth of 12,544 feet to a depth of 16,851 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 Red Hills West Unit #014H well, API # **30-025-43136** in Lea 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

Stryker Directional

Red Hills West Unit #14H

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 9-26S-32E Red Hills West Unit #14H
Well: Red Hills West Unit #14H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West Unit #14H
TVD Reference: 3204 + 27 @ 3231.0usft (Patterson 250)
MD Reference: 3204 + 27 @ 3231.0usft (Patterson 250)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Lea County N.M.		
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 9-26S-32E Red Hills West Unit #14H		
Site Position:		Northing:	382,762.90 usft
From:	Map	Easting:	700,591.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 2.437 N
		Longitude:	103° 41' 9.253 W
		Grid Convergence:	0.34 °

Well	Red Hills West Unit #14H		
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° 3' 2.437 N
		Longitude:	103° 41' 9.253 W
		Ground Level:	3,204.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/20/2016	7.08	59.89	47,909

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	323.97

Stryker Directional

Red Hills West Unit #14H

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 9-26S-32E Red Hills West Unit #14H
Well: Red Hills West Unit #14H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West Unit #14H
TVD Reference: 3204 + 27 @ 3231.0usft (Patterson 250)
MD Reference: 3204 + 27 @ 3231.0usft (Patterson 250)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey Program **Date** 9/6/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	12,525.0	Schlumberger MWD Survey (Original Hole)	MWD	MWD v3:standard declination
12,544.0	16,900.0	Stryker MWD Survey #2 (Original Hole)	MWD	MWD v3:standard declination

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
12,525.0	92.13	349.06	12,043.1	439.0	-319.3	542.8	542.8	323.97	0.00
12,544.0	92.40	348.50	12,042.4	457.6	-323.0	560.1	560.1	324.79	3.27
12,576.0	91.20	352.30	12,041.4	489.2	-328.3	588.7	589.1	326.13	12.45
12,607.0	88.50	355.70	12,041.4	520.0	-331.5	615.5	616.7	327.48	14.00
12,638.0	89.10	355.70	12,042.1	550.9	-333.9	641.9	644.2	328.78	1.94
12,669.0	88.80	355.50	12,042.7	581.8	-336.3	668.3	672.0	329.97	1.16
12,700.0	87.50	357.20	12,043.7	612.7	-338.2	694.5	699.9	331.10	6.90
12,731.0	86.40	359.00	12,045.3	643.7	-339.3	720.1	727.6	332.21	6.80
12,762.0	85.70	358.80	12,047.4	674.6	-339.8	745.4	755.3	333.26	2.35
12,856.0	87.80	359.50	12,052.8	768.4	-341.2	822.1	840.8	336.05	2.35
12,950.0	88.30	0.10	12,056.0	862.4	-341.6	898.3	927.5	338.39	0.83
13,043.0	88.30	0.20	12,058.7	955.3	-341.3	973.4	1,014.5	340.34	0.11
13,137.0	88.00	358.50	12,061.8	1,049.3	-342.4	1,050.0	1,103.7	341.93	1.84
13,230.0	92.20	3.80	12,061.6	1,142.2	-340.5	1,124.0	1,191.9	343.40	7.27
13,324.0	92.20	4.60	12,058.0	1,235.9	-333.6	1,195.7	1,280.1	344.89	0.85
13,418.0	91.10	4.80	12,055.3	1,329.5	-325.9	1,266.9	1,368.9	346.22	1.19
13,511.0	88.60	4.10	12,055.5	1,422.2	-318.7	1,337.7	1,457.5	347.37	2.79
13,605.0	89.10	2.50	12,057.4	1,516.0	-313.3	1,410.4	1,548.1	348.32	1.78
13,698.0	89.30	3.90	12,058.7	1,608.9	-308.1	1,482.4	1,638.1	349.16	1.52
13,792.0	88.50	1.60	12,060.5	1,702.7	-303.6	1,555.7	1,729.6	349.89	2.59
13,885.0	87.10	359.70	12,064.1	1,795.7	-302.6	1,630.2	1,821.0	350.44	2.54



PHOENIX

TECHNOLOGY SERVICES USA INC.

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

Celebrating 20 Years of Focused Solutions

August 17, 2016

Mewbourne Oil
Attention: Regulatory Department
701 S Cecil St
Hobbs, New Mexico 88240

Re: Mewbourne Oil
Red Hills West Unit #014H
Lea County, New Mexico
API #30-025-43136
Job No. 60266

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 29 2016
RECEIVED

HOBBS OCD
DEC 13 2016
RECEIVED

Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the Survey Data Certification, Surveys, and Lease Plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 1 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Noe Garza	14H	0	11,215	08/09/16	08/09/16	Gyro

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

Claudia Carreon
Operations Administrator

SURVEY CERTIFICATION FORM

3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964



Company: Mewbourne

Job #: 60266

Well Name: Red Hills West Unit # 014H

County/State: Lea., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-43136

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-08-09	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-08-09	11215	1.74	152.02

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
-0.34

Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Jaime Stephenson

To the best of my knowledge I certify this survey data to be correct and true

Date: 08-09-16

Print Name: Noe Garza

Signature: [Signature]



Company: Mewbourne
 Well: Red Hills West Unit # 014H
 Location: Lea Co., New Mexico
 Rig: Patterson 250

Job Number: 60266
 Grid Corr.: -0.34
 Lat: 32.05
 Long: -103.69

Date: 08-09-16
 Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 26.5 Feet
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
Enter Tie-In Survey on Line 10													
FIELD COPY, NON-DEFINITIVE													
TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.08	95.29	100	100.00	-0.01	0.01 S	0.07 E	0.07	95.29	0.08	0.08	95.29
	200.00	0.22	45.48	100	200.00	0.12	0.12 N	0.28 E	0.30	66.19	0.18	0.14	-49.81
	300.00	0.08	190.31	100	300.00	0.19	0.19 N	0.40 E	0.44	64.88	0.29	-0.14	144.83
	400.00	0.12	66.89	100	400.00	0.16	0.16 N	0.48 E	0.51	71.70	0.18	0.04	-123.42
	500.00	0.28	201.83	100	500.00	-0.03	0.03 S	0.49 E	0.49	93.00	0.37	0.16	134.94
	600.00	0.24	133.70	100	600.00	-0.40	0.40 S	0.55 E	0.68	125.83	0.29	-0.04	-68.13
	700.00	1.25	96.10	100	699.99	-0.66	0.66 S	1.79 E	1.90	110.22	1.07	1.01	-37.60
	800.00	1.37	87.08	100	799.96	-0.71	0.71 S	4.06 E	4.13	99.95	0.24	0.12	-9.02
	900.00	1.33	24.18	100	899.94	0.41	0.41 N	5.73 E	5.75	85.94	1.41	-0.04	-62.90
	1000.00	1.86	10.19	100	999.90	3.06	3.06 N	6.50 E	7.18	64.76	0.65	0.53	-13.99
	1100.00	2.62	21.58	100	1099.82	6.79	6.79 N	7.62 E	10.21	48.33	0.88	0.76	11.39
	1200.00	2.43	17.48	100	1199.73	10.93	10.93 N	9.10 E	14.23	39.78	0.26	-0.19	-4.10
	1300.00	0.70	59.54	100	1299.69	13.26	13.26 N	10.27 E	16.77	37.73	1.97	-1.73	42.06
	1400.00	0.24	96.75	100	1399.68	13.55	13.55 N	11.00 E	17.45	39.07	0.53	-0.46	37.21
	1500.00	0.47	15.21	100	1499.68	13.92	13.92 N	11.32 E	17.94	39.10	0.50	0.23	-81.54
	1600.00	0.60	142.18	100	1599.68	13.90	13.90 N	11.74 E	18.20	40.19	0.96	0.13	126.97
	1700.00	0.57	160.05	100	1699.68	13.02	13.02 N	12.23 E	17.87	43.21	0.18	-0.03	17.87
	1800.00	0.16	103.28	100	1799.67	12.52	12.52 N	12.54 E	17.72	45.04	0.50	-0.41	-56.77
	1900.00	0.32	153.92	100	1899.67	12.24	12.24 N	12.80 E	17.71	46.28	0.25	0.16	50.64
	2000.00	0.54	140.84	100	1999.67	11.62	11.62 N	13.22 E	17.60	48.68	0.24	0.22	-13.08
	2100.00	0.53	225.88	100	2099.67	10.94	10.94 N	13.18 E	17.13	50.33	0.72	-0.01	85.04
	2200.00	0.82	239.87	100	2199.66	10.25	10.25 N	12.23 E	15.96	50.03	0.33	0.29	13.99
	2300.00	1.25	241.05	100	2299.64	9.37	9.37 N	10.66 E	14.19	48.69	0.43	0.43	1.18
	2400.00	1.54	242.81	100	2399.61	8.23	8.23 N	8.51 E	11.84	45.98	0.29	0.29	1.76
	2500.00	1.91	250.45	100	2499.57	7.05	7.05 N	5.75 E	9.10	39.16	0.43	0.37	7.64
	2600.00	1.68	275.07	100	2599.52	6.63	6.63 N	2.71 E	7.16	22.28	0.80	-0.23	24.62
	2700.00	0.73	329.88	100	2699.50	7.31	7.31 N	0.93 E	7.37	7.29	1.39	-0.95	54.81



Company: Mewbourne
 Well: Red Hills West Unit # 014H
 Location: Lea Co., New Mexico
 Rig: Patterson 250

Job Number: 60266
 Grid Corr.: -0.34
 Lat: 32.05
 Long: -103.69

Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: 26.5 Feet
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	2800.00	0.76	9.72	100	2799.49	8.51	8.51 N	0.73 E	8.54	4.88	0.51	0.03	-320.16
	2900.00	0.95	23.40	100	2899.48	9.93	9.93 N	1.17 E	9.99	6.71	0.28	0.19	13.68
	3000.00	0.86	69.34	100	2999.47	10.95	10.95 N	2.20 E	11.17	11.36	0.71	-0.09	45.94
	3100.00	0.92	87.95	100	3099.46	11.24	11.24 N	3.70 E	11.84	18.23	0.29	0.06	18.61
	3200.00	1.22	69.54	100	3199.44	11.65	11.65 N	5.50 E	12.88	25.30	0.45	0.30	-18.41
	3300.00	2.10	86.15	100	3299.40	12.14	12.14 N	8.33 E	14.72	34.45	0.99	0.88	16.61
	3400.00	2.22	92.44	100	3399.33	12.18	12.18 N	12.09 E	17.16	44.79	0.27	0.12	6.29
	3500.00	1.55	91.05	100	3499.27	12.07	12.07 N	15.38 E	19.55	51.87	0.67	-0.67	-1.39
	3600.00	1.96	68.70	100	3599.23	12.67	12.67 N	18.33 E	22.28	55.34	0.79	0.41	-22.35
	3700.00	1.77	65.85	100	3699.17	13.92	13.92 N	21.33 E	25.47	56.86	0.21	-0.19	-2.85
	3800.00	2.58	70.32	100	3799.10	15.31	15.31 N	24.86 E	29.19	58.36	0.83	0.81	4.47
	3900.00	2.44	89.45	100	3899.01	16.09	16.09 N	29.10 E	33.26	61.06	0.85	-0.14	19.13
	4000.00	1.71	103.32	100	3998.94	15.77	15.77 N	32.68 E	36.29	64.25	0.88	-0.73	13.87
	4100.00	2.09	108.55	100	4098.89	14.84	14.84 N	35.87 E	38.82	67.52	0.42	0.38	5.23
	4200.00	3.46	114.72	100	4198.77	13.00	13.00 N	40.34 E	42.38	72.13	1.40	1.37	6.17
	4300.00	3.42	121.30	100	4298.59	10.19	10.19 N	45.63 E	46.75	77.41	0.40	-0.04	6.58
	4400.00	2.59	128.18	100	4398.45	7.24	7.24 N	49.95 E	50.47	81.75	0.90	-0.83	6.88
	4500.00	1.52	124.19	100	4498.38	5.10	5.10 N	52.82 E	53.07	84.48	1.08	-1.07	-3.99
	4600.00	1.28	126.34	100	4598.35	3.70	3.70 N	54.82 E	54.94	86.14	0.25	-0.24	2.15
	4700.00	1.11	115.84	100	4698.33	2.61	2.61 N	56.59 E	56.65	87.36	0.28	-0.17	-10.50
	4800.00	0.90	94.18	100	4798.32	2.13	2.13 N	58.25 E	58.29	87.90	0.43	-0.21	-21.66
	4900.00	0.93	114.85	100	4898.30	1.73	1.73 N	59.77 E	59.79	88.34	0.33	0.03	20.67
	5000.00	1.58	94.45	100	4998.28	1.29	1.29 N	61.88 E	61.89	88.81	0.78	0.65	-20.40
	5100.00	0.98	114.20	100	5098.25	0.83	0.83 N	64.03 E	64.04	89.26	0.74	-0.60	19.75
	5200.00	0.40	178.08	100	5198.25	0.13	0.13 N	64.82 E	64.82	89.89	0.88	-0.58	63.88
	5300.00	0.90	147.72	100	5298.24	-0.88	0.88 S	65.25 E	65.26	90.78	0.59	0.50	-30.36
	5400.00	0.49	175.97	100	5398.23	-1.97	1.97 S	65.70 E	65.73	91.72	0.52	-0.41	28.25
	5500.00	0.96	232.25	100	5498.23	-2.91	2.91 S	65.07 E	65.14	92.56	0.80	0.47	56.28
	5600.00	0.45	238.47	100	5598.22	-3.63	3.63 S	64.07 E	64.18	93.24	0.51	-0.51	6.22
	5700.00	0.49	252.92	100	5698.22	-3.96	3.96 S	63.33 E	63.45	93.58	0.12	0.04	14.45



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 Well: Red Hills West Unit # 014H
 Location: Lea Co., New Mexico
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Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: 26.5 Feet
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	5800.00	0.35	266.88	100	5798.21	-4.11	4.11 S	62.62 E	62.75	93.75	0.17	-0.14	13.96
	5900.00	0.32	291.23	100	5898.21	-4.02	4.02 S	62.05 E	62.18	93.71	0.14	-0.03	24.35
	6000.00	0.19	67.41	100	5998.21	-3.86	3.86 S	61.94 E	62.06	93.56	0.48	-0.13	-223.82
	6100.00	0.34	321.68	100	6098.21	-3.56	3.56 S	61.91 E	62.02	93.29	0.43	0.15	254.27
	6200.00	0.69	277.82	100	6198.21	-3.24	3.24 S	61.13 E	61.22	93.04	0.50	0.35	-43.86
	6300.00	0.86	250.45	100	6298.20	-3.41	3.41 S	59.83 E	59.93	93.27	0.40	0.17	-27.37
	6400.00	0.66	254.23	100	6398.19	-3.82	3.82 S	58.57 E	58.69	93.73	0.21	-0.20	3.78
	6500.00	0.55	274.17	100	6498.18	-3.94	3.94 S	57.54 E	57.67	93.92	0.24	-0.11	19.94
	6600.00	0.47	284.68	100	6598.18	-3.80	3.80 S	56.66 E	56.79	93.84	0.12	-0.08	10.51
	6700.00	0.55	225.89	100	6698.18	-4.03	4.03 S	55.92 E	56.06	94.13	0.51	0.08	-58.79
	6800.00	0.69	234.93	100	6798.17	-4.71	4.71 S	55.08 E	55.28	94.89	0.17	0.14	9.04
	6900.00	0.41	251.83	100	6898.17	-5.17	5.17 S	54.25 E	54.49	95.45	0.32	-0.28	16.90
	7000.00	0.44	265.80	100	6998.16	-5.31	5.31 S	53.53 E	53.79	95.67	0.11	0.03	13.97
	7100.00	0.36	95.77	100	7098.16	-5.37	5.37 S	53.46 E	53.72	95.74	0.80	-0.08	-170.03
	7200.00	0.08	101.26	100	7198.16	-5.42	5.42 S	53.84 E	54.11	95.75	0.28	-0.28	5.49
	7300.00	0.19	212.69	100	7298.16	-5.57	5.57 S	53.82 E	54.10	95.91	0.23	0.11	111.43
	7400.00	0.16	193.41	100	7398.16	-5.85	5.85 S	53.69 E	54.01	96.21	0.07	-0.03	-19.28
	7500.00	0.30	279.40	100	7498.16	-5.94	5.94 S	53.40 E	53.73	96.35	0.33	0.14	85.99
	7600.00	0.10	90.13	100	7598.16	-5.90	5.90 S	53.23 E	53.56	96.32	0.40	-0.20	-189.27
	7700.00	0.38	220.22	100	7698.16	-6.15	6.15 S	53.10 E	53.46	96.61	0.45	0.28	130.09
	7800.00	0.73	226.92	100	7798.15	-6.84	6.84 S	52.43 E	52.87	97.43	0.36	0.35	6.70
	7900.00	0.70	233.06	100	7898.15	-7.64	7.64 S	51.47 E	52.04	98.44	0.08	-0.03	6.14
	8000.00	0.57	232.37	100	7998.14	-8.31	8.31 S	50.59 E	51.27	99.33	0.13	-0.13	-0.69
	8100.00	0.53	239.39	100	8098.14	-8.85	8.85 S	49.80 E	50.58	100.08	0.08	-0.04	7.02
	8200.00	0.75	254.53	100	8198.13	-9.26	9.26 S	48.77 E	49.64	100.75	0.28	0.22	15.14
	8300.00	0.92	183.02	100	8298.12	-10.24	10.24 S	48.10 E	49.17	102.01	0.99	0.17	-71.51
	8400.00	1.31	212.89	100	8398.10	-12.00	12.00 S	47.43 E	48.93	104.19	0.69	0.39	29.87
	8500.00	1.14	217.92	100	8498.08	-13.74	13.74 S	46.20 E	48.20	106.57	0.20	-0.17	5.03
	8600.00	1.42	230.77	100	8598.05	-15.31	15.31 S	44.63 E	47.18	108.94	0.40	0.28	12.85
	8700.00	1.29	244.75	100	8698.03	-16.57	16.57 S	42.65 E	45.76	111.24	0.35	-0.13	13.98



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 Proposed Azimuth:
 RKB - MSL in feet: 26.5 Feet
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	8800.00	1.85	254.64	100	8797.99	-17.48	17.48 S	40.08 E	43.72	113.57	0.62	0.56	9.89
	8900.00	3.25	244.83	100	8897.89	-19.12	19.12 S	35.95 E	40.72	118.00	1.46	1.40	-9.81
	9000.00	3.24	234.23	100	8997.73	-21.97	21.97 S	31.10 E	38.08	125.25	0.60	-0.01	-10.60
	9100.00	2.75	254.91	100	9097.59	-24.25	24.25 S	26.49 E	35.91	132.47	1.18	-0.49	20.68
	9200.00	2.12	264.05	100	9197.50	-25.07	25.07 S	22.33 E	33.57	138.30	0.74	-0.63	9.14
	9300.00	1.49	271.59	100	9297.45	-25.22	25.22 S	19.19 E	31.69	142.73	0.67	-0.63	7.54
	9400.00	1.10	211.83	100	9397.43	-26.00	26.00 S	17.39 E	31.28	146.23	1.33	-0.39	-59.76
	9500.00	1.39	206.78	100	9497.41	-27.90	27.90 S	16.33 E	32.33	149.65	0.31	0.29	-5.05
	9600.00	1.47	209.99	100	9597.38	-30.09	30.09 S	15.15 E	33.69	153.28	0.11	0.08	3.21
	9700.00	1.49	201.65	100	9697.34	-32.41	32.41 S	14.02 E	35.32	156.60	0.22	0.02	-8.34
	9800.00	1.19	219.44	100	9797.32	-34.42	34.42 S	12.89 E	36.76	159.48	0.51	-0.30	17.79
	9900.00	0.69	112.88	100	9897.31	-35.46	35.46 S	12.78 E	37.69	160.18	1.54	-0.50	-106.56
	10000.00	1.45	137.61	100	9997.29	-36.63	36.63 S	14.19 E	39.28	158.83	0.87	0.76	24.73
	10100.00	1.58	155.97	100	10097.26	-38.82	38.82 S	15.60 E	41.84	158.10	0.50	0.13	18.36
	10200.00	1.33	156.67	100	10197.22	-41.15	41.15 S	16.62 E	44.38	158.00	0.25	-0.25	0.70
	10300.00	1.06	265.45	100	10297.21	-42.28	42.28 S	16.16 E	45.27	159.08	1.95	-0.27	108.78
	10400.00	2.32	210.90	100	10397.17	-44.10	44.10 S	14.20 E	46.32	162.15	1.91	1.26	-54.55
	10500.00	3.13	231.58	100	10497.06	-47.53	47.53 S	11.02 E	48.79	166.95	1.26	0.81	20.68
	10600.00	3.02	243.59	100	10596.92	-50.40	50.40 S	6.52 E	50.82	172.63	0.65	-0.11	12.01
	10700.00	2.54	249.55	100	10696.80	-52.34	52.34 S	2.09 E	52.38	177.72	0.56	-0.48	5.96
	10800.00	1.34	226.50	100	10796.74	-53.92	53.92 S	0.84 W	53.93	180.89	1.41	-1.20	-23.05
	10900.00	0.99	196.59	100	10896.72	-55.55	55.55 S	1.93 W	55.59	181.99	0.69	-0.35	-29.91
	11000.00	1.36	150.11	100	10996.70	-57.41	57.41 S	1.59 W	57.43	181.58	0.99	0.37	-46.48
	11100.00	1.57	154.28	100	11096.67	-59.67	59.67 S	0.40 W	59.68	180.39	0.24	0.21	4.17
	11200.00	1.67	155.20	100	11196.63	-62.23	62.23 S	0.80 E	62.24	179.26	0.10	0.10	0.92
	11215.00	1.74	152.02	15	11211.62	-62.63	62.63 S	1.00 E	62.64	179.08	0.78	0.47	-21.20