



COMPANY: Mewbourne Oil Company
WELL: Red Hills West Unit 018H
COUNTY: Lea County N.M.
DATUM: NAD 1927 (NADCON CONUS)
RIG: Patterson Patterson 231



OFFICE: 936.582.7296

Grid Correction MWD: To convert a Magnetic Direction to a Grid Direction, Add 6.65°

GEODETIC ZONE: New Mexico East 3001
3195 + 27 @ 3222.0usft (Patterson 231)

GROUND ELEVATION: 3195.0

Upland	Easting	Latitude
000000	000000	000000

82610.60̄ 694890.20̄ 32° 3' 1.̄

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	382610.60	694890.20	32° 3' 1.263 N	103° 42' 15.502 W	

PLAN SECTIONS

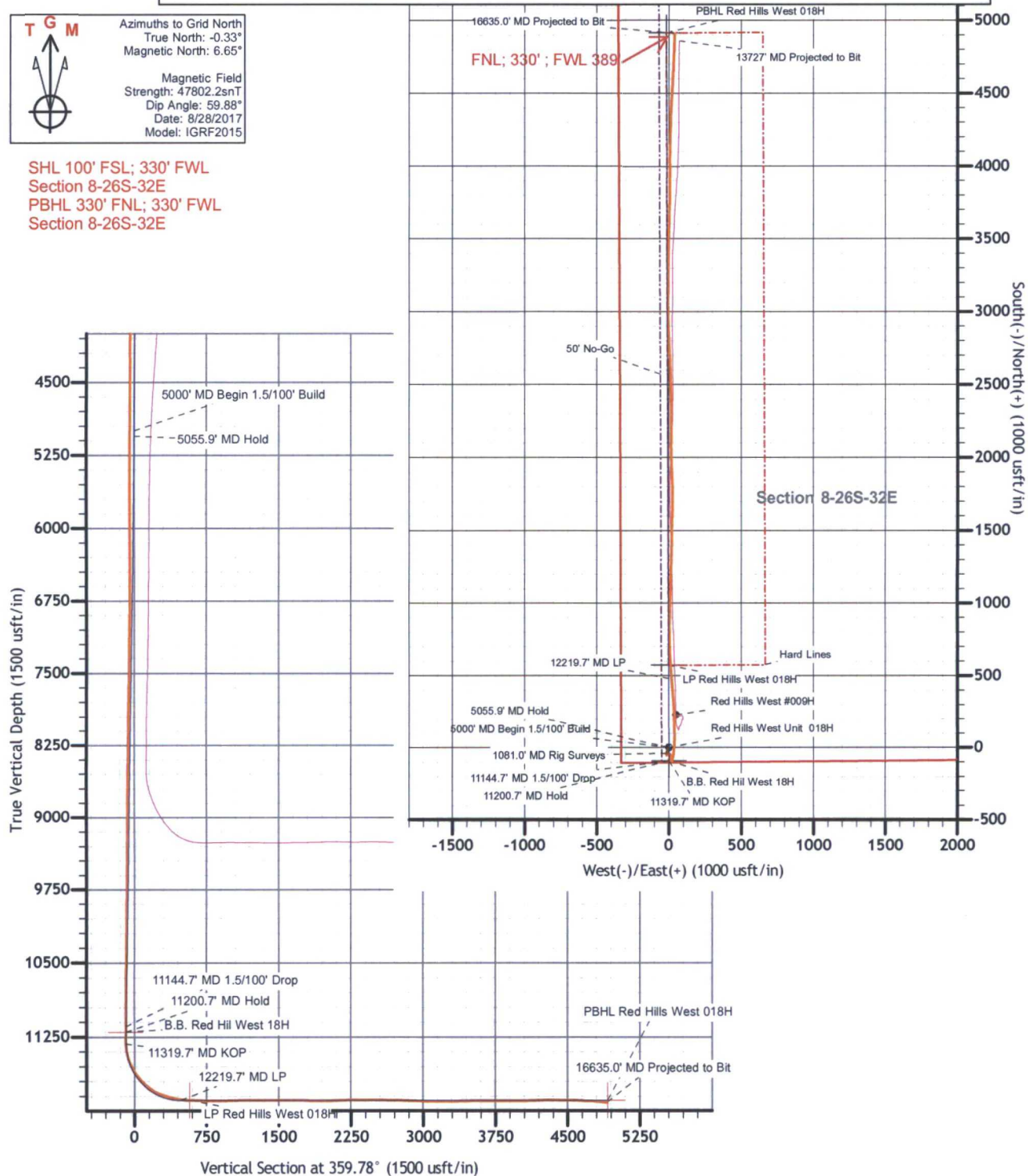
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.0	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5000.0	0.00	0.00	5000.0	0.0	0.0	0.00	0.00	0.0	
3	5055.9	0.84	179.77	5055.9	-0.4	0.0	1.50	179.77	-0.4	
4	11144.7	0.84	179.77	11144.1	-89.6	0.4	0.00	0.00	-89.6	
5	11200.7	0.00	0.00	11200.0	-90.0	0.4	0.00	169.00	-90.0	B.B. Red Hill West 18H
6	11317.9	0.00	0.00	11319.0	-90.0	0.4	0.00	0.00	-90.0	
7	12119.7	90.00	359.77	11892.0	483.0	-19.3	10.00	359.77	483.0	
8	16652.1	90.00	359.77	11892.0	4915.3	-19.9	0.00	0.00	4915.3	PBHL Red Hills West 018H



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.65°

Magnetic Field
Strength: 47802.2snT
Dip Angle: 59.88°
Date: 8/28/2017
Model: IGRF2015

SHL 100' FSL; 330' FWL
Section 8-26S-32E
PBHL 330' FNL; 330' FWL
Section 8-26S-32E





30-025-43913

HOBBS OCD
FEB 13 2018
RECEIVED

Mewbourne Oil Company

Lea County N.M.

Section 8-26S-32E Red Hills West Unit 018H

Red Hills West Unit 018H

Original Hole

Design: Original Hole

Standard Survey Report

03 October, 2017



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West Unit 018H
Project:	Lea County N.M.	TVD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Site:	Section 8-26S-32E Red Hills West Unit 018H	MD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Well:	Red Hills West Unit 018H	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 8-26S-32E Red Hills West Unit 018H		
Site Position:		Northing:	382,610.60 usft
From:	Map	Easting:	694,890.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 1.263 N
		Longitude:	103° 42' 15.502 W
		Grid Convergence:	0.33 °

Well	Red Hills West Unit 018H		
Well Position	+N/-S	0.0 usft	Northing: 382,610.60 usft
	+E/-W	0.0 usft	Easting: 694,890.20 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 3' 1.263 N
		Longitude:	103° 42' 15.502 W
		Ground Level:	3,195.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/28/2017	6.98	59.88	47,802.20323337

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	202.78	

Survey Program	Date	10/3/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
102.0	1,081.0	Rig Survey (Original Hole)	MWD	MWD v3:standard declination	
1,122.0	16,635.0	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	
102.0	0.20	121.70	102.0	-0.1	0.2	0.0	0.20	0.20	0.00	
164.0	0.10	138.60	164.0	-0.2	0.3	0.1	0.17	-0.16	27.26	
225.0	0.30	116.70	225.0	-0.3	0.5	0.1	0.35	0.33	-35.90	
285.0	0.70	201.60	285.0	-0.7	0.5	0.5	1.23	0.67	141.50	
345.0	1.00	194.60	345.0	-1.6	0.2	1.4	0.53	0.50	-11.67	
405.0	1.30	190.60	405.0	-2.7	-0.1	2.5	0.52	0.50	-6.67	
465.0	1.20	200.60	465.0	-4.0	-0.4	3.8	0.40	-0.17	16.67	
525.0	1.40	201.60	524.9	-5.3	-0.9	5.2	0.34	0.33	1.67	
585.0	1.30	207.60	584.9	-6.5	-1.5	6.6	0.29	-0.17	10.00	

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Well:	Red Hills West Unit 018H	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)
645.0	3.00	205.60	644.9	-8.6	-2.5	8.9	2.84	2.83	-3.33
705.0	3.90	207.60	704.8	-11.8	-4.1	12.5	1.51	1.50	3.33
765.0	4.70	205.00	764.6	-15.8	-6.1	16.9	1.37	1.33	-4.33
825.0	4.70	203.60	824.4	-20.3	-8.1	21.9	0.19	0.00	-2.33
920.0	4.50	203.60	919.1	-27.3	-11.2	29.5	0.21	-0.21	0.00
1,050.0	4.30	204.60	1,048.7	-36.4	-15.2	39.5	0.16	-0.15	0.77
1,081.0	4.20	203.60	1,079.6	-38.5	-16.2	41.7	0.40	-0.32	-3.23
1081.0' MD Rig Surveys									
1,122.0	4.10	199.10	1,120.5	-41.3	-17.2	44.7	0.83	-0.24	-10.98
1,217.0	1.50	167.20	1,215.4	-45.7	-18.1	49.1	3.09	-2.74	-33.58
1,312.0	1.40	128.40	1,310.4	-47.6	-16.9	50.4	1.02	-0.11	-40.84
1,407.0	0.90	114.10	1,405.4	-48.6	-15.3	50.8	0.60	-0.53	-15.05
1,503.0	0.50	100.60	1,501.4	-49.0	-14.2	50.7	0.45	-0.42	-14.06
1,598.0	0.50	85.20	1,596.4	-49.1	-13.4	50.4	0.14	0.00	-16.21
1,693.0	0.40	89.20	1,691.3	-49.0	-12.6	50.1	0.11	-0.11	4.21
1,788.0	0.60	65.50	1,786.3	-48.8	-11.9	49.6	0.30	0.21	-24.95
1,882.0	0.30	20.40	1,880.3	-48.4	-11.3	49.0	0.47	-0.32	-47.98
1,978.0	0.50	28.40	1,976.3	-47.8	-11.0	48.3	0.22	0.21	8.33
2,073.0	0.70	38.00	2,071.3	-46.9	-10.5	47.3	0.23	0.21	10.11
2,167.0	0.70	80.30	2,165.3	-46.4	-9.6	46.5	0.54	0.00	45.00
2,265.0	0.90	89.40	2,263.3	-46.3	-8.2	45.9	0.24	0.20	9.29
2,360.0	1.30	99.30	2,358.3	-46.5	-6.4	45.3	0.46	0.42	10.42
2,455.0	1.50	94.50	2,453.3	-46.7	-4.1	44.7	0.24	0.21	-5.05
2,550.0	0.30	36.90	2,548.3	-46.6	-2.7	44.0	1.43	-1.26	-60.63
2,646.0	0.40	294.00	2,644.3	-46.3	-2.9	43.8	0.57	0.10	-107.19
2,741.0	0.50	289.90	2,739.3	-46.0	-3.6	43.8	0.11	0.11	-4.32
2,835.0	0.50	295.30	2,833.3	-45.7	-4.3	43.8	0.05	0.00	5.74
2,929.0	0.40	307.10	2,927.2	-45.3	-4.9	43.7	0.14	-0.11	12.55
3,024.0	0.30	312.20	3,022.2	-45.0	-5.4	43.5	0.11	-0.11	5.37
3,120.0	0.20	280.00	3,118.2	-44.8	-5.7	43.5	0.18	-0.10	-33.54
3,215.0	0.00	277.00	3,213.2	-44.7	-5.9	43.5	0.21	-0.21	0.00
3,310.0	0.40	52.10	3,308.2	-44.5	-5.6	43.2	0.42	0.42	0.00
3,405.0	0.60	61.10	3,403.2	-44.1	-4.9	42.6	0.23	0.21	9.47
3,500.0	0.40	39.80	3,498.2	-43.6	-4.3	41.9	0.28	-0.21	-22.42
3,595.0	0.40	21.50	3,593.2	-43.0	-4.0	41.2	0.13	0.00	-19.26
3,690.0	0.30	67.30	3,688.2	-42.6	-3.6	40.7	0.30	-0.11	48.21
3,784.0	0.70	102.50	3,782.2	-42.7	-2.8	40.4	0.52	0.43	37.45
3,879.0	0.70	101.20	3,877.2	-42.9	-1.7	40.2	0.02	0.00	-1.37
3,974.0	1.20	115.00	3,972.2	-43.4	-0.2	40.1	0.58	0.53	14.53
4,069.0	1.70	127.90	4,067.2	-44.7	1.8	40.5	0.63	0.53	13.58
4,164.0	0.90	86.70	4,162.2	-45.5	3.7	40.6	1.24	-0.84	-43.37
4,250.0	1.00	28.00	4,248.1	-44.8	4.7	39.5	1.09	0.12	-68.26
4,385.0	1.20	24.80	4,383.1	-42.5	5.8	36.9	0.15	0.15	-2.37

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Well:	Red Hills West Unit 018H	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)
4,480.0	0.60	101.30	4,478.1	-41.7	6.7	35.8	1.27	-0.63	80.53
4,575.0	0.70	135.20	4,573.1	-42.2	7.6	36.0	0.41	0.11	35.68
4,670.0	0.90	143.10	4,668.1	-43.2	8.5	36.6	0.24	0.21	8.32
4,765.0	0.90	153.50	4,763.1	-44.5	9.3	37.4	0.17	0.00	10.95
4,860.0	0.40	177.20	4,858.1	-45.5	9.6	38.2	0.59	-0.53	24.95
4,956.0	0.30	195.50	4,954.1	-46.1	9.6	38.8	0.15	-0.10	19.06
5,051.0	0.10	184.10	5,049.1	-46.4	9.5	39.1	0.21	-0.21	-12.00
5,146.0	0.20	168.40	5,144.1	-46.6	9.5	39.3	0.11	0.11	-16.53
5,241.0	0.10	184.80	5,239.1	-46.9	9.5	39.5	0.11	-0.11	17.26
5,336.0	0.00	5.30	5,334.1	-47.0	9.5	39.6	0.11	-0.11	0.00
5,432.0	0.00	307.10	5,430.1	-47.0	9.5	39.6	0.00	0.00	0.00
5,527.0	0.20	329.60	5,525.1	-46.8	9.5	39.5	0.21	0.21	0.00
5,622.0	0.20	297.50	5,620.1	-46.6	9.2	39.4	0.12	0.00	-33.79
5,716.0	0.30	282.50	5,714.1	-46.5	8.8	39.4	0.13	0.11	-15.96
5,812.0	0.20	323.40	5,810.1	-46.3	8.5	39.4	0.21	-0.10	42.60
5,906.0	0.30	331.30	5,904.1	-45.9	8.3	39.1	0.11	0.11	8.40
6,001.0	0.20	338.30	5,999.1	-45.6	8.1	38.9	0.11	-0.11	7.37
6,096.0	0.20	34.80	6,094.1	-45.3	8.1	38.6	0.20	0.00	59.47
6,192.0	0.40	85.30	6,190.1	-45.1	8.6	38.3	0.33	0.21	52.60
6,287.0	0.40	105.90	6,285.1	-45.2	9.2	38.1	0.15	0.00	21.68
6,382.0	0.40	131.50	6,380.1	-45.5	9.8	38.1	0.19	0.00	26.95
6,477.0	0.40	135.80	6,475.1	-45.9	10.3	38.4	0.03	0.00	4.53
6,572.0	0.40	147.70	6,570.1	-46.4	10.7	38.7	0.09	0.00	12.53
6,667.0	0.40	167.70	6,665.1	-47.1	10.9	39.2	0.15	0.00	21.05
6,762.0	0.10	258.20	6,760.1	-47.4	10.9	39.5	0.43	-0.32	95.26
6,857.0	0.20	167.10	6,855.1	-47.6	10.9	39.7	0.24	0.11	-95.89
6,952.0	0.40	178.00	6,950.1	-48.1	10.9	40.1	0.22	0.21	11.47
7,047.0	0.50	158.40	7,045.1	-48.8	11.1	40.7	0.19	0.11	-20.63
7,142.0	0.80	140.50	7,140.0	-49.7	11.6	41.3	0.38	0.32	-18.84
7,236.0	0.90	144.40	7,234.0	-50.8	12.5	42.0	0.12	0.11	4.15
7,331.0	1.10	150.10	7,329.0	-52.2	13.4	42.9	0.23	0.21	6.00
7,426.0	1.40	207.80	7,424.0	-54.0	13.3	44.6	1.30	0.32	60.74
7,520.0	1.30	231.80	7,518.0	-55.7	11.9	46.7	0.61	-0.11	25.53
7,615.0	0.60	229.90	7,613.0	-56.7	10.7	48.1	0.74	-0.74	-2.00
7,709.0	0.60	218.70	7,707.0	-57.4	10.0	49.0	0.12	0.00	-11.91
7,804.0	0.60	188.00	7,802.0	-58.2	9.6	50.0	0.33	0.00	-32.32
7,900.0	0.80	203.90	7,897.9	-59.4	9.3	51.1	0.29	0.21	16.56
7,994.0	0.90	202.70	7,991.9	-60.6	8.7	52.5	0.11	0.11	-1.28
8,090.0	1.00	192.00	8,087.9	-62.2	8.3	54.1	0.21	0.10	-11.15
8,185.0	0.70	191.00	8,182.9	-63.5	8.0	55.5	0.32	-0.32	-1.05
8,280.0	0.70	185.10	8,277.9	-64.7	7.8	56.6	0.08	0.00	-6.21
8,376.0	0.90	192.20	8,373.9	-66.0	7.6	57.9	0.23	0.21	7.40
8,471.0	1.10	189.00	8,468.9	-67.6	7.3	59.5	0.22	0.21	-3.37

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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)	
8,567.0	0.90	191.00	8,564.9	-69.3	7.0	61.2	0.21	-0.21	2.08	
8,661.0	1.00	194.60	8,658.9	-70.8	6.7	62.7	0.12	0.11	3.83	
8,756.0	0.60	114.80	8,753.8	-71.8	6.9	63.5	1.13	-0.42	-84.00	
8,851.0	1.00	116.90	8,848.8	-72.4	8.1	63.6	0.42	0.42	2.21	
8,946.0	0.90	132.60	8,943.8	-73.3	9.4	63.9	0.29	-0.11	16.53	
9,041.0	1.00	163.50	9,038.8	-74.6	10.2	64.8	0.54	0.11	32.53	
9,136.0	0.50	224.10	9,133.8	-75.7	10.1	65.8	0.92	-0.53	63.79	
9,231.0	0.70	239.40	9,228.8	-76.3	9.3	66.7	0.27	0.21	16.11	
9,327.0	1.10	215.90	9,324.8	-77.3	8.3	68.1	0.56	0.42	-24.48	
9,422.0	0.40	281.40	9,419.8	-78.0	7.4	69.0	1.06	-0.74	68.95	
9,517.0	0.50	275.20	9,514.8	-77.9	6.7	69.2	0.12	0.11	-6.53	
9,612.0	0.80	259.30	9,609.8	-78.0	5.6	69.7	0.37	0.32	-16.74	
9,706.0	0.70	261.70	9,703.8	-78.2	4.4	70.4	0.11	-0.11	2.55	
9,801.0	0.80	260.50	9,798.8	-78.4	3.2	71.0	0.11	0.11	-1.26	
9,896.0	1.10	249.70	9,893.7	-78.8	1.7	72.0	0.37	0.32	-11.37	
9,992.0	0.50	194.50	9,989.7	-79.5	0.7	73.0	0.95	-0.63	-57.50	
10,087.0	0.50	161.00	10,084.7	-80.3	0.7	73.7	0.30	0.00	-35.26	
10,182.0	0.40	133.90	10,179.7	-80.9	1.1	74.2	0.24	-0.11	-28.53	
10,277.0	0.70	137.60	10,274.7	-81.6	1.8	74.5	0.32	0.32	3.89	
10,372.0	1.20	149.60	10,369.7	-82.9	2.6	75.4	0.56	0.53	12.63	
10,467.0	1.30	169.60	10,464.7	-84.8	3.3	76.9	0.47	0.11	21.05	
10,562.0	1.10	149.80	10,559.7	-86.6	4.0	78.3	0.48	-0.21	-20.84	
10,657.0	2.50	88.70	10,654.6	-87.4	6.5	78.0	2.31	1.47	-64.32	
10,752.0	2.70	94.30	10,749.5	-87.5	10.8	76.5	0.34	0.21	5.89	
10,847.0	2.10	91.50	10,844.4	-87.7	14.8	75.1	0.64	-0.63	-2.95	
10,942.0	1.80	82.90	10,939.4	-87.6	18.0	73.8	0.44	-0.32	-9.05	
11,036.0	1.50	86.20	11,033.3	-87.3	20.7	72.5	0.33	-0.32	3.51	
11,132.0	0.70	131.30	11,129.3	-87.6	22.4	72.1	1.17	-0.83	46.98	
11,202.6	0.66	167.19	11,199.9	-88.3	22.8	72.6	0.60	-0.06	50.84	
B.B. Red Hill West 18H										
11,226.0	0.70	178.40	11,223.3	-88.6	22.9	72.8	0.60	0.18	47.89	
11,257.0	0.90	196.40	11,254.3	-89.0	22.8	73.2	1.03	0.65	58.06	
11,288.0	0.90	220.00	11,285.3	-89.4	22.6	73.7	1.19	0.00	76.13	
11,320.0	1.20	31.30	11,317.3	-89.3	22.6	73.6	6.54	0.94	535.31	
11,352.0	4.00	40.80	11,349.3	-88.2	23.5	72.2	8.82	8.75	29.69	
11,384.0	6.90	19.00	11,381.1	-85.5	24.8	69.2	10.98	9.06	-68.13	
11,416.0	11.20	8.10	11,412.7	-80.6	25.9	64.3	14.41	13.44	-34.06	
11,447.0	15.60	9.70	11,442.9	-73.5	27.0	57.3	14.24	14.19	5.16	
11,479.0	21.10	11.70	11,473.2	-63.6	28.9	47.5	17.30	17.19	6.25	
11,510.0	21.80	9.90	11,502.1	-52.5	31.0	36.4	3.10	2.26	-5.81	
11,542.0	23.60	7.40	11,531.6	-40.3	32.9	24.4	6.38	5.63	-7.81	
11,574.0	28.30	6.80	11,560.4	-26.4	34.6	10.9	14.71	14.69	-1.88	
11,605.0	33.40	5.00	11,587.0	-10.6	36.2	-4.3	16.72	16.45	-5.81	
11,637.0	37.00	3.80	11,613.1	7.8	37.6	-21.8	11.46	11.25	-3.75	

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West Unit 018H
Project:	Lea County N.M.	TVD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Site:	Section 8-26S-32E Red Hills West Unit 018H	MD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Well:	Red Hills West Unit 018H	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)
11,669.0	38.50	2.70	11,638.4	27.3	38.7	-40.2	5.14	4.69	-3.44
11,701.0	39.90	2.50	11,663.2	47.6	39.7	-59.2	4.39	4.38	-0.63
11,733.0	41.80	1.60	11,687.4	68.5	40.4	-78.8	6.22	5.94	-2.81
11,764.0	46.50	357.70	11,709.7	90.0	40.2	-98.6	17.51	15.16	-12.58
11,796.0	48.70	358.40	11,731.3	113.7	39.4	-120.1	7.06	6.88	2.19
11,827.0	49.20	357.20	11,751.6	137.0	38.5	-141.3	3.34	1.61	-3.87
11,859.0	53.00	359.00	11,771.7	161.9	37.7	-163.9	12.66	11.88	5.63
11,891.0	58.60	0.10	11,789.7	188.4	37.5	-188.2	17.73	17.50	3.44
11,922.0	63.50	358.70	11,804.7	215.5	37.2	-213.1	16.29	15.81	-4.52
11,954.0	65.80	357.20	11,818.4	244.4	36.2	-239.3	8.34	7.19	-4.69
11,990.0	68.80	356.20	11,832.3	277.5	34.3	-269.1	8.72	8.33	-2.78
12,062.0	74.10	356.50	11,855.2	345.6	29.9	-330.2	7.37	7.36	0.42
12,094.0	76.00	356.00	11,863.4	376.5	27.9	-357.9	6.13	5.94	-1.56
12,125.0	78.50	356.30	11,870.3	406.6	25.9	-384.9	8.12	8.06	0.97
12,157.0	80.40	355.90	11,876.1	438.0	23.8	-413.0	6.06	5.94	-1.25
12,189.0	81.90	354.60	11,881.1	469.5	21.1	-441.1	6.17	4.69	-4.06
12,220.0	84.50	354.90	11,884.7	500.2	18.3	-468.2	8.44	8.39	0.97
12,252.0	87.00	355.30	11,887.1	532.0	15.6	-496.5	7.91	7.81	1.25
12,294.3	87.95	355.80	11,889.0	574.1	12.3	-534.1	2.52	2.23	1.17
LP Red Hills West 018H									
12,346.0	89.10	356.40	11,890.3	625.7	8.8	-580.3	2.52	2.23	1.17
12,441.0	87.10	358.90	11,893.4	720.5	4.9	-666.2	3.37	-2.11	2.63
12,536.0	89.30	0.50	11,896.4	815.5	4.4	-753.5	2.86	2.32	1.68
12,631.0	92.40	1.60	11,895.0	910.4	6.1	-841.8	3.46	3.26	1.16
12,726.0	91.00	1.40	11,892.2	1,005.3	8.6	-930.2	1.49	-1.47	-0.21
12,821.0	91.30	1.90	11,890.3	1,100.3	11.4	-1,018.8	0.61	0.32	0.53
12,916.0	90.20	2.00	11,889.0	1,195.2	14.6	-1,107.6	1.16	-1.16	0.11
13,011.0	89.30	1.90	11,889.5	1,290.2	17.8	-1,196.4	0.95	-0.95	-0.11
13,106.0	88.70	0.60	11,891.1	1,385.1	19.9	-1,284.8	1.51	-0.63	-1.37
13,201.0	90.10	0.80	11,892.1	1,480.1	21.1	-1,372.8	1.49	1.47	0.21
13,296.0	90.80	2.10	11,891.4	1,575.1	23.5	-1,461.3	1.55	0.74	1.37
13,390.0	91.20	0.10	11,889.7	1,669.0	25.3	-1,548.6	2.17	0.43	-2.13
13,486.0	87.30	359.90	11,891.0	1,765.0	25.3	-1,637.1	4.07	-4.06	-0.21
13,581.0	87.00	357.80	11,895.7	1,859.9	23.4	-1,723.8	2.23	-0.32	-2.21
13,676.0	89.70	357.10	11,898.4	1,954.7	19.1	-1,809.6	2.94	2.84	-0.74
13,771.0	93.70	0.10	11,895.6	2,049.6	16.8	-1,896.2	5.26	4.21	3.16
13,864.0	93.50	0.50	11,889.8	2,142.4	17.3	-1,982.0	0.48	-0.22	0.43
13,959.0	88.60	359.90	11,888.0	2,237.4	17.6	-2,069.6	5.20	-5.16	-0.63
14,054.0	91.00	359.60	11,888.4	2,332.4	17.2	-2,157.1	2.55	2.53	-0.32
14,149.0	87.20	357.60	11,889.9	2,427.3	14.9	-2,243.7	4.52	-4.00	-2.11
14,244.0	93.10	359.00	11,889.6	2,522.2	12.1	-2,330.1	6.38	6.21	1.47
14,339.0	89.80	357.40	11,887.2	2,617.1	9.1	-2,416.5	3.86	-3.47	-1.68
14,404.0	88.50	357.60	11,888.2	2,682.1	6.3	-2,475.2	2.02	-2.00	0.31

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West Unit 018H
Project:	Lea County N.M.	TVD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Site:	Section 8-26S-32E Red Hills West Unit 018H	MD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Well:	Red Hills West Unit 018H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
14,498.0	87.20	358.00	11,891.7	2,775.9	2.7	-2,560.4	1.45	-1.38	0.43
14,594.0	87.70	357.90	11,896.0	2,871.8	-0.8	-2,647.4	0.53	0.52	-0.10
14,688.0	87.20	358.70	11,900.2	2,965.6	-3.6	-2,732.9	1.00	-0.53	0.85
14,783.0	89.20	359.00	11,903.1	3,060.6	-5.5	-2,819.7	2.13	2.11	0.32
14,814.0	90.20	359.60	11,903.3	3,091.6	-5.8	-2,848.1	3.76	3.23	1.94
14,846.0	91.10	0.00	11,902.9	3,123.6	-6.0	-2,877.5	3.08	2.81	1.25
14,878.0	91.00	0.20	11,902.4	3,155.6	-5.9	-2,907.1	0.70	-0.31	0.63
14,910.0	90.40	0.20	11,902.0	3,187.6	-5.8	-2,936.6	1.88	-1.88	0.00
14,972.0	90.50	0.10	11,901.5	3,249.6	-5.6	-2,993.8	0.23	0.16	-0.16
15,068.0	92.00	1.30	11,899.4	3,345.5	-4.4	-3,082.8	2.00	1.56	1.25
15,163.0	90.90	1.00	11,897.0	3,440.5	-2.5	-3,171.0	1.20	-1.16	-0.32
15,258.0	91.10	1.90	11,895.3	3,535.4	-0.1	-3,259.5	0.97	0.21	0.95
15,353.0	89.10	1.90	11,895.2	3,630.4	3.0	-3,348.3	2.11	-2.11	0.00
15,448.0	89.90	1.40	11,896.0	3,725.3	5.7	-3,436.9	0.99	0.84	-0.53
15,543.0	88.70	359.40	11,897.1	3,820.3	6.4	-3,524.7	2.45	-1.26	-2.11
15,639.0	89.20	359.90	11,898.9	3,916.3	5.8	-3,613.0	0.74	0.52	0.52
15,734.0	92.30	359.80	11,897.7	4,011.3	5.6	-3,700.4	3.26	3.26	-0.11
15,829.0	93.70	1.60	11,892.7	4,106.1	6.7	-3,788.3	2.40	1.47	1.89
15,924.0	91.30	1.30	11,888.5	4,201.0	9.1	-3,876.7	2.55	-2.53	-0.32
16,019.0	90.90	1.70	11,886.7	4,295.9	11.6	-3,965.3	0.60	-0.42	0.42
16,114.0	90.50	3.00	11,885.6	4,390.9	15.5	-4,054.3	1.43	-0.42	1.37
16,210.0	88.70	3.30	11,886.2	4,486.7	20.8	-4,144.7	1.90	-1.88	0.31
16,242.0	88.00	3.40	11,887.2	4,518.6	22.7	-4,174.8	2.21	-2.19	0.31
16,305.0	86.50	3.00	11,890.2	4,581.5	26.2	-4,234.1	2.46	-2.38	-0.63
16,336.0	86.40	3.30	11,892.1	4,612.4	27.9	-4,263.3	1.02	-0.32	0.97
16,400.0	87.70	2.50	11,895.4	4,676.2	31.1	-4,323.4	2.38	2.03	-1.25
16,494.0	86.30	2.30	11,900.3	4,770.0	35.0	-4,411.4	1.50	-1.49	-0.21
16,584.0	84.00	1.60	11,907.9	4,859.6	38.1	-4,495.2	2.67	-2.56	-0.78
16,635.0	84.00	1.60	11,913.3	4,910.3	39.5	-4,542.5	0.00	0.00	0.00

16635.0' MD Projected to Bit - PBHL Red Hills West 018H

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
1,081.0	1,079.6	-38.5	-16.2	1081.0' MD Rig Surveys
16,635.0	11,913.3	4,910.3	39.5	16635.0' MD Projected to Bit



November 7, 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 September 13, 2017, through October 03, 2017 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 1,122 feet to a depth of 16,584 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 #018H well, API # 30-025-43913 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.

A handwritten signature in black ink, appearing to read "Todd Estes", written over a horizontal line.

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



Microsoft
MWD Surveys



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West Unit 018H
Project:	Lea County N.M.	TVD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Site:	Section 8-26S-32E Red Hills West Unit 018H	MD Reference:	3195 + 27 @ 3222.0usft (Patterson 231)
Well:	Red Hills West Unit 018H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Project	Lea County N.M.	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Section 8-26S-32E Red Hills West Unit 018H		
Site Position:		Northing:	382,610.60 usft
From:	Map	Easting:	694,890.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 1.263 N
		Longitude:	103° 42' 15.502 W
		Grid Convergence:	0.33 °

Well	Red Hills West Unit 018H		
Well Position	+N/-S 0.0 usft	Northing:	382,610.60 usft
	+E/-W 0.0 usft	Easting:	694,890.20 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 3' 1.263 N
		Longitude:	103° 42' 15.502 W
		Ground Level:	3,195.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/28/2017	6.98	59.88	47,802.20323338

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	202.78



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 8-26S-32E Red Hills West Unit 018H
Well: Red Hills West Unit 018H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West Unit 018H
TVD Reference: 3195 + 27 @ 3222.0usft (Patterson 231)
MD Reference: 3195 + 27 @ 3222.0usft (Patterson 231)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey Program Date 10/3/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
102.0	1,081.0	Rig Survey (Original Hole)	MWD	MWD v3:standard declination
1,122.0	16,635.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination

Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (")
1,081.0	4.20	203.60	1,079.6	-38.5	-16.2	41.7	202.78
1,122.0	4.10	199.10	1,120.5	-41.3	-17.2	44.7	202.69
1,217.0	1.50	167.20	1,215.4	-45.7	-18.1	49.1	201.60
1,312.0	1.40	128.40	1,310.4	-47.6	-16.9	50.5	199.54
1,407.0	0.90	114.10	1,405.4	-48.6	-15.3	51.0	197.47
1,503.0	0.50	100.60	1,501.4	-49.0	-14.2	51.0	196.16
1,598.0	0.50	85.20	1,596.4	-49.1	-13.4	50.9	195.26
1,693.0	0.40	89.20	1,691.3	-49.0	-12.6	50.6	194.46
1,788.0	0.60	65.50	1,786.3	-48.8	-11.9	50.2	193.66
1,882.0	0.30	20.40	1,880.3	-48.4	-11.3	49.7	193.18
1,978.0	0.50	28.40	1,976.3	-47.8	-11.0	49.0	193.01
2,073.0	0.70	38.00	2,071.3	-46.9	-10.5	48.1	192.59
2,167.0	0.70	80.30	2,165.3	-46.4	-9.6	47.4	191.65
2,265.0	0.90	89.40	2,263.3	-46.3	-8.2	47.0	190.05
2,360.0	1.30	99.30	2,358.3	-46.5	-6.4	46.9	187.84
2,455.0	1.50	94.50	2,453.3	-46.7	-4.1	46.9	185.01
2,550.0	0.30	36.90	2,548.3	-46.6	-2.7	46.7	183.32
2,646.0	0.40	294.00	2,644.3	-46.3	-2.9	46.4	183.53
2,741.0	0.50	289.90	2,739.3	-46.0	-3.6	46.2	184.41
2,835.0	0.50	295.30	2,833.3	-45.7	-4.3	45.9	185.39
2,929.0	0.40	307.10	2,927.2	-45.3	-4.9	45.6	186.22



November 7, 2017

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 #018H
WC-025 G-08 S263205N; Upper Wolfcamp
Lea County, New Mexico
API# 30-025-43913

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>
Keith Broussard	Original Hole	1,122ft. to 16,584ft.	09-13-17 to 10-03-17	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 #018\M171080

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



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 8-26S-32E Red Hills West Unit 018H
Well: Red Hills West Unit 018H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West Unit 018H
TVD Reference: 3195 + 27 @ 3222.0usft (Patterson 231)
MD Reference: 3195 + 27 @ 3222.0usft (Patterson 231)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
3,024.0	0.30	312.20	3,022.2	-45.0	-5.4	45.3	186.84
3,120.0	0.20	280.00	3,118.2	-44.8	-5.7	45.1	187.31
3,215.0	0.00	277.00	3,213.2	-44.7	-5.9	45.1	187.52
3,310.0	0.40	52.10	3,308.2	-44.5	-5.6	44.9	187.22
3,405.0	0.60	61.10	3,403.2	-44.1	-4.9	44.4	186.40
3,500.0	0.40	39.80	3,498.2	-43.6	-4.3	43.8	185.63
3,595.0	0.40	21.50	3,593.2	-43.0	-4.0	43.2	185.26
3,690.0	0.30	67.30	3,688.2	-42.6	-3.6	42.8	184.84
3,784.0	0.70	102.50	3,782.2	-42.7	-2.8	42.7	183.79
3,879.0	0.70	101.20	3,877.2	-42.9	-1.7	42.9	182.26
3,974.0	1.20	115.00	3,972.2	-43.4	-0.2	43.4	180.29
4,069.0	1.70	127.90	4,067.2	-44.7	1.8	44.7	177.70
4,164.0	0.90	86.70	4,162.2	-45.5	3.7	45.7	175.41
4,250.0	1.00	28.00	4,248.1	-44.8	4.7	45.1	174.04
4,385.0	1.20	24.80	4,383.1	-42.5	5.8	42.9	172.20
4,480.0	0.60	101.30	4,478.1	-41.7	6.7	42.2	170.83
4,575.0	0.70	135.20	4,573.1	-42.2	7.6	42.9	169.76
4,670.0	0.90	143.10	4,668.1	-43.2	8.5	44.0	168.89
4,765.0	0.90	153.50	4,763.1	-44.5	9.3	45.4	168.24
4,860.0	0.40	177.20	4,858.1	-45.5	9.6	46.5	168.07
4,956.0	0.30	195.50	4,954.1	-46.1	9.6	47.0	168.27
5,051.0	0.10	184.10	5,049.1	-46.4	9.5	47.3	168.44
5,146.0	0.20	168.40	5,144.1	-46.6	9.5	47.6	168.46
5,241.0	0.10	184.80	5,239.1	-46.9	9.5	47.8	168.49
5,336.0	0.00	5.30	5,334.1	-47.0	9.5	47.9	168.52
5,432.0	0.00	307.10	5,430.1	-47.0	9.5	47.9	168.52
5,527.0	0.20	329.60	5,525.1	-46.8	9.5	47.8	168.58



Microsoft
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
5,622.0	0.20	297.50	5,620.1	-46.6	9.2	47.5	168.80
5,716.0	0.30	282.50	5,714.1	-46.5	8.8	47.3	169.23
5,812.0	0.20	323.40	5,810.1	-46.3	8.5	47.0	169.60
5,906.0	0.30	331.30	5,904.1	-45.9	8.3	46.7	169.79
6,001.0	0.20	338.30	5,999.1	-45.6	8.1	46.3	169.92
6,096.0	0.20	34.80	6,094.1	-45.3	8.1	46.0	169.82
6,192.0	0.40	85.30	6,190.1	-45.1	8.6	45.9	169.26
6,287.0	0.40	105.90	6,285.1	-45.2	9.2	46.1	168.48
6,382.0	0.40	131.50	6,380.1	-45.5	9.8	46.5	167.87
6,477.0	0.40	135.80	6,475.1	-45.9	10.3	47.1	167.42
6,572.0	0.40	147.70	6,570.1	-46.4	10.7	47.7	167.07
6,667.0	0.40	167.70	6,665.1	-47.1	10.9	48.3	166.95
6,762.0	0.10	258.20	6,760.1	-47.4	10.9	48.6	167.05
6,857.0	0.20	167.10	6,855.1	-47.6	10.9	48.8	167.15
6,952.0	0.40	178.00	6,950.1	-48.1	10.9	49.3	167.22
7,047.0	0.50	158.40	7,045.1	-48.8	11.1	50.0	167.22
7,142.0	0.80	140.50	7,140.0	-49.7	11.6	51.0	166.81
7,236.0	0.90	144.40	7,234.0	-50.8	12.5	52.3	166.18
7,331.0	1.10	150.10	7,329.0	-52.2	13.4	53.9	165.62
7,426.0	1.40	207.80	7,424.0	-54.0	13.3	55.6	166.17
7,520.0	1.30	231.80	7,518.0	-55.7	11.9	56.9	167.92
7,615.0	0.60	229.90	7,613.0	-56.7	10.7	57.7	169.32
7,709.0	0.60	218.70	7,707.0	-57.4	10.0	58.2	170.10
7,804.0	0.60	188.00	7,802.0	-58.2	9.6	59.0	170.62
7,900.0	0.80	203.90	7,897.9	-59.4	9.3	60.1	171.11
7,994.0	0.90	202.70	7,991.9	-60.6	8.7	61.3	171.80
8,090.0	1.00	192.00	8,087.9	-62.2	8.3	62.7	172.42



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8,185.0	0.70	191.00	8,182.9	-63.5	8.0	64.0	172.84
8,280.0	0.70	185.10	8,277.9	-64.7	7.8	65.2	173.10
8,376.0	0.90	192.20	8,373.9	-66.0	7.6	66.4	173.42
8,471.0	1.10	189.00	8,468.9	-67.6	7.3	68.0	173.83
8,567.0	0.90	191.00	8,564.9	-69.3	7.0	69.6	174.21
8,661.0	1.00	194.60	8,658.9	-70.8	6.7	71.1	174.61
8,756.0	0.60	114.80	8,753.8	-71.8	6.9	72.1	174.50
8,851.0	1.00	116.90	8,848.8	-72.4	8.1	72.8	173.61
8,946.0	0.90	132.60	8,943.8	-73.3	9.4	73.9	172.69
9,041.0	1.00	163.50	9,038.8	-74.6	10.2	75.3	172.22
9,136.0	0.50	224.10	9,133.8	-75.7	10.1	76.3	172.37
9,231.0	0.70	239.40	9,228.8	-76.3	9.3	76.8	173.02
9,327.0	1.10	215.90	9,324.8	-77.3	8.3	77.7	173.87
9,422.0	0.40	281.40	9,419.8	-78.0	7.4	78.3	174.55
9,517.0	0.50	275.20	9,514.8	-77.9	6.7	78.2	175.08
9,612.0	0.80	259.30	9,609.8	-78.0	5.6	78.2	175.87
9,706.0	0.70	261.70	9,703.8	-78.2	4.4	78.3	176.76
9,801.0	0.80	260.50	9,798.8	-78.4	3.2	78.4	177.67
9,896.0	1.10	249.70	9,893.7	-78.8	1.7	78.8	178.78
9,992.0	0.50	194.50	9,989.7	-79.5	0.7	79.5	179.48
10,087.0	0.50	161.00	10,084.7	-80.3	0.7	80.3	179.47
10,182.0	0.40	133.90	10,179.7	-80.9	1.1	80.9	179.21
10,277.0	0.70	137.60	10,274.7	-81.6	1.8	81.6	178.77
10,372.0	1.20	149.60	10,369.7	-82.9	2.6	82.9	178.17
10,467.0	1.30	169.60	10,464.7	-84.8	3.3	84.9	177.74
10,562.0	1.10	149.80	10,559.7	-86.6	4.0	86.7	177.36
10,657.0	2.50	88.70	10,654.6	-87.4	6.5	87.6	175.73



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10,752.0	2.70	94.30	10,749.5	-87.5	10.8	88.2	172.94
10,847.0	2.10	91.50	10,844.4	-87.7	14.8	88.9	170.42
10,942.0	1.80	82.90	10,939.4	-87.6	18.0	89.4	168.37
11,036.0	1.50	86.20	11,033.3	-87.3	20.7	89.7	166.65
11,132.0	0.70	131.30	11,129.3	-87.6	22.4	90.4	165.65
11,202.6	0.66	167.19	11,199.9	-88.3	22.8	91.2	165.51
B.B. Red Hill West 18H							
11,226.0	0.70	178.40	11,223.3	-88.6	22.9	91.5	165.53
11,257.0	0.90	196.40	11,254.3	-89.0	22.8	91.9	165.63
11,288.0	0.90	220.00	11,285.3	-89.4	22.6	92.2	165.83
11,320.0	1.20	31.30	11,317.3	-89.3	22.6	92.1	165.81
11,352.0	4.00	40.80	11,349.3	-88.2	23.5	91.3	165.09
11,384.0	6.90	19.00	11,381.1	-85.5	24.8	89.1	163.80
11,416.0	11.20	8.10	11,412.7	-80.6	25.9	84.7	162.19
11,447.0	15.60	9.70	11,442.9	-73.5	27.0	78.3	159.82
11,479.0	21.10	11.70	11,473.2	-63.6	28.9	69.9	155.56
11,510.0	21.80	9.90	11,502.1	-52.5	31.0	61.0	149.40
11,542.0	23.60	7.40	11,531.6	-40.3	32.9	52.0	140.78
11,574.0	28.30	6.80	11,560.4	-26.4	34.6	43.5	127.34
11,605.0	33.40	5.00	11,587.0	-10.6	36.2	37.7	106.30
11,637.0	37.00	3.80	11,613.1	7.8	37.6	38.4	78.31
11,669.0	38.50	2.70	11,638.4	27.3	38.7	47.4	54.78
11,701.0	39.90	2.50	11,663.2	47.6	39.7	61.9	39.83
11,733.0	41.80	1.60	11,687.4	68.5	40.4	79.5	30.55
11,764.0	46.50	357.70	11,709.7	90.0	40.2	98.6	24.08
11,796.0	48.70	358.40	11,731.3	113.7	39.4	120.3	19.14
11,827.0	49.20	357.20	11,751.6	137.0	38.5	142.3	15.71



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11,859.0	53.00	359.00	11,771.7	161.9	37.7	166.2	13.12
11,891.0	58.60	0.10	11,789.7	188.4	37.5	192.1	11.27
11,922.0	63.50	358.70	11,804.7	215.5	37.2	218.7	9.80
11,954.0	65.80	357.20	11,818.4	244.4	36.2	247.0	8.43
11,990.0	68.80	356.20	11,832.3	277.5	34.3	279.6	7.04
12,062.0	74.10	356.50	11,855.2	345.6	29.9	346.9	4.95
12,094.0	76.00	356.00	11,863.4	376.5	27.9	377.5	4.24
12,125.0	78.50	356.30	11,870.3	406.6	25.9	407.5	3.64
12,157.0	80.40	355.90	11,876.1	438.0	23.8	438.7	3.10
12,189.0	81.90	354.60	11,881.1	469.5	21.1	470.0	2.58
12,220.0	84.50	354.90	11,884.7	500.2	18.3	500.5	2.10
12,252.0	87.00	355.30	11,887.1	532.0	15.6	532.2	1.68
12,294.3	87.95	355.80	11,889.0	574.1	12.3	574.3	1.23
LP Red Hills West 018H							
12,346.0	89.10	356.40	11,890.3	625.7	8.8	625.7	0.81
12,441.0	87.10	358.90	11,893.4	720.5	4.9	720.5	0.39
12,536.0	89.30	0.50	11,896.4	815.5	4.4	815.5	0.31
12,631.0	92.40	1.60	11,895.0	910.4	6.1	910.4	0.39
12,726.0	91.00	1.40	11,892.2	1,005.3	8.6	1,005.4	0.49
12,821.0	91.30	1.90	11,890.3	1,100.3	11.4	1,100.3	0.59
12,916.0	90.20	2.00	11,889.0	1,195.2	14.6	1,195.3	0.70
13,011.0	89.30	1.90	11,889.5	1,290.2	17.8	1,290.3	0.79
13,106.0	88.70	0.60	11,891.1	1,385.1	19.9	1,385.3	0.82
13,201.0	90.10	0.80	11,892.1	1,480.1	21.1	1,480.3	0.82
13,296.0	90.80	2.10	11,891.4	1,575.1	23.5	1,575.3	0.85
13,390.0	91.20	0.10	11,889.7	1,669.0	25.3	1,669.2	0.87
13,486.0	87.30	359.90	11,891.0	1,765.0	25.3	1,765.2	0.82



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13,581.0	87.00	357.80	11,895.7	1,859.9	23.4	1,860.0	0.72
13,676.0	89.70	357.10	11,898.4	1,954.7	19.1	1,954.8	0.56
13,771.0	93.70	0.10	11,895.6	2,049.6	16.8	2,049.7	0.47
13,864.0	93.50	0.50	11,889.8	2,142.4	17.3	2,142.5	0.46
13,959.0	88.60	359.90	11,888.0	2,237.4	17.6	2,237.5	0.45
14,054.0	91.00	359.60	11,888.4	2,332.4	17.2	2,332.5	0.42
14,149.0	87.20	357.60	11,889.9	2,427.3	14.9	2,427.4	0.35
14,244.0	93.10	359.00	11,889.6	2,522.2	12.1	2,522.3	0.27
14,339.0	89.80	357.40	11,887.2	2,617.1	9.1	2,617.2	0.20
14,404.0	88.50	357.60	11,888.2	2,682.1	6.3	2,682.1	0.13
14,498.0	87.20	358.00	11,891.7	2,775.9	2.7	2,775.9	0.05
14,594.0	87.70	357.90	11,896.0	2,871.8	-0.8	2,871.8	359.98
14,688.0	87.20	358.70	11,900.2	2,965.6	-3.6	2,965.6	359.93
14,783.0	89.20	359.00	11,903.1	3,060.6	-5.5	3,060.6	359.90
14,814.0	90.20	359.60	11,903.3	3,091.6	-5.8	3,091.6	359.89
14,846.0	91.10	0.00	11,902.9	3,123.6	-6.0	3,123.6	359.89
14,878.0	91.00	0.20	11,902.4	3,155.6	-5.9	3,155.6	359.89
14,910.0	90.40	0.20	11,902.0	3,187.6	-5.8	3,187.6	359.90
14,972.0	90.50	0.10	11,901.5	3,249.6	-5.6	3,249.6	359.90
15,068.0	92.00	1.30	11,899.4	3,345.5	-4.4	3,345.5	359.92
15,163.0	90.90	1.00	11,897.0	3,440.5	-2.5	3,440.5	359.96
15,258.0	91.10	1.90	11,895.3	3,535.4	-0.1	3,535.4	360.00
15,353.0	89.10	1.90	11,895.2	3,630.4	3.0	3,630.4	0.05
15,448.0	89.90	1.40	11,896.0	3,725.3	5.7	3,725.3	0.09
15,543.0	88.70	359.40	11,897.1	3,820.3	6.4	3,820.3	0.10
15,639.0	89.20	359.90	11,898.9	3,916.3	5.8	3,916.3	0.09
15,734.0	92.30	359.80	11,897.7	4,011.3	5.6	4,011.3	0.08



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15,829.0	93.70	1.60	11,892.7	4,106.1	6.7	4,106.1	0.09
15,924.0	91.30	1.30	11,888.5	4,201.0	9.1	4,201.0	0.12
16,019.0	90.90	1.70	11,886.7	4,295.9	11.6	4,296.0	0.15
16,114.0	90.50	3.00	11,885.6	4,390.9	15.5	4,390.9	0.20
16,210.0	88.70	3.30	11,886.2	4,486.7	20.8	4,486.8	0.27
16,242.0	88.00	3.40	11,887.2	4,518.6	22.7	4,518.7	0.29
16,305.0	86.50	3.00	11,890.2	4,581.5	26.2	4,581.5	0.33
16,336.0	86.40	3.30	11,892.1	4,612.4	27.9	4,612.4	0.35
16,400.0	87.70	2.50	11,895.4	4,676.2	31.1	4,676.3	0.38
16,494.0	88.30	2.30	11,900.3	4,770.0	35.0	4,770.1	0.42
16,584.0	84.00	1.60	11,907.9	4,859.6	38.1	4,859.7	0.45
16,635.0	84.00	1.60	11,913.3	4,910.3	39.5	4,910.5	0.46

16635.0' MD Projected to Bit - PBHL Red Hills West 018H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
16,635.0	11,913.3	4,910.3	39.5	16635.0' MD Projected to Bit