

OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE Big Sinks 1 A3OB Fee 002H
COUNTY EDDY

187-0025

STATE OF NEW MEXICO
DEVIATION REPORT

15-42712

268	0.54
504	0.27
827	0.46
1,074	0.66
1,328	0.30

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 31 2015

RECEIVED

BY: Briana Welch

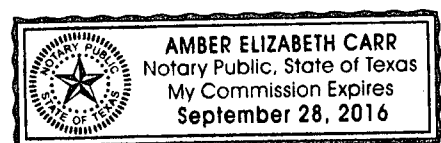
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Briana Welch on behalf of Patterson-UTI Drilling Company LLC.

7/23/15, by

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:





COMPANY: Mewbourne Oil Company
 WELL: Big Sinks 1 A3 OB Fee
 COUNTY: Eddy County, New Mexico
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson #187



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.92°

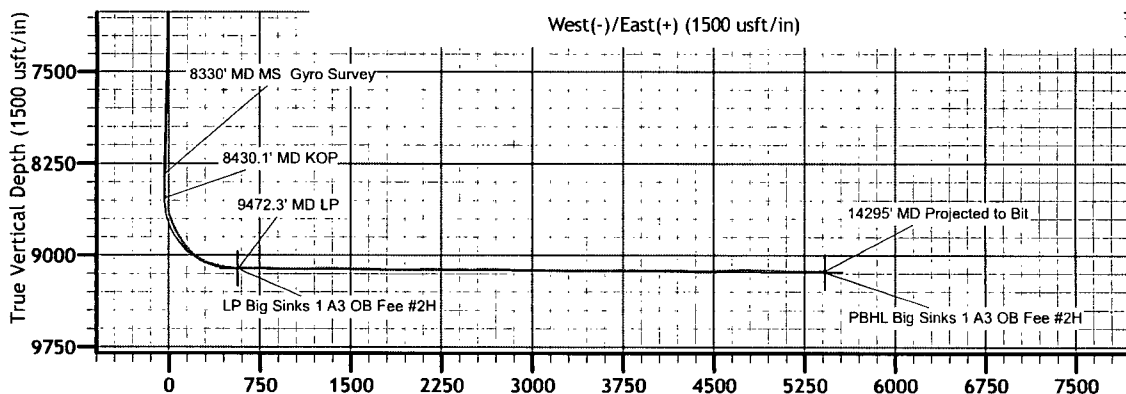
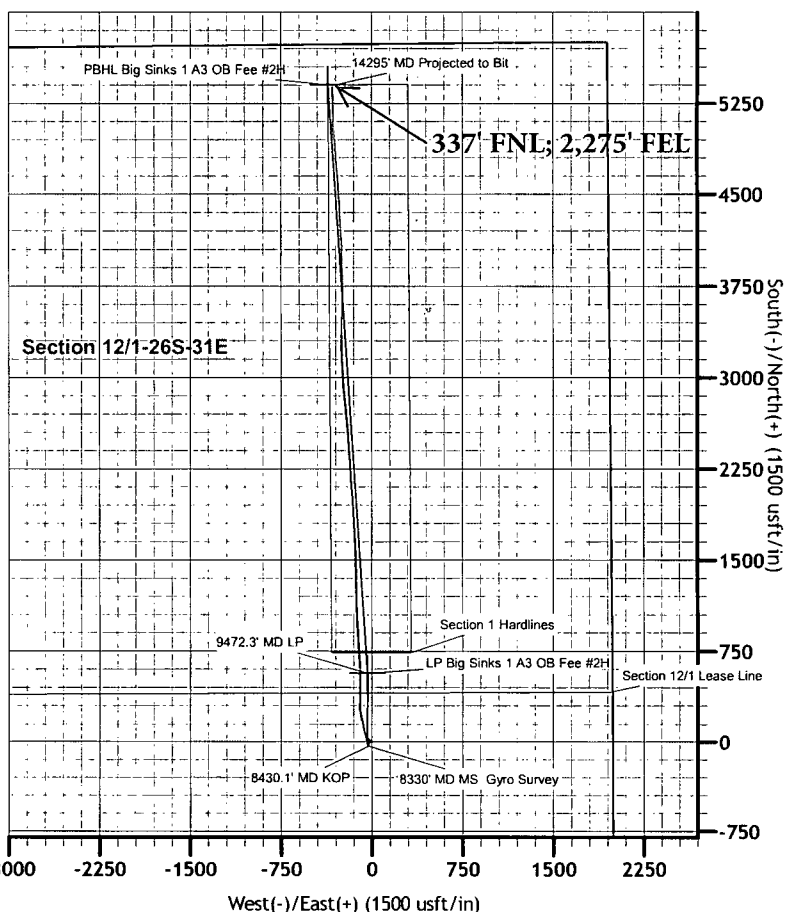
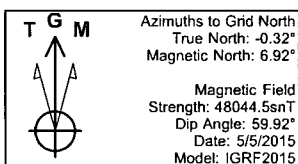
OFFICE: 936.582.7296

GEODETIC ZONE: New Mexico East 3001
 GL 3250+20 @ 3270.0usft (Patterson #187)
 GROUND ELEVATION: 3250.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	387397.20	687216.50	32° 3' 49.065 N	103° 43' 44.350 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	8330.0	1.12	221.64	8329.1	-36.0	-29.4	0.00	0.00	-34.0	
2	8530.1	1.12	221.64	8529.2	-39.0	-32.0	0.00	0.00	-36.8	
3	9428.2	89.11	0.55	9109.5	524.1	-33.9	10.02	138.91	525.2	
4	9472.3	89.65	356.16	9110.0	568.3	-35.2	10.01	-83.06	569.4	LP Big Sinks 1 A3 OB Fee #2H
5	14321.4	89.65	356.16	9140.0	5406.3	-360.2	0.00	0.00	5418.3	PBHL Big Sinks 1 A3 OB Fee #2H



Vertical Section at 356.19° (1500 usft/in)

AUG 31 2015

RECEIVED

Mewbourne Oil Company .

Eddy County, New Mexico

Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H

Big Sinks 1 A3 OB Fee

Original Hole

Design: Original Hole

Standard Survey Report

03 June, 2015

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Big Sinks 1 A3 OB Fee
Project:	Eddy County, New Mexico	TVD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Site:	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H	MD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Well:	Big Sinks 1 A3 OB Fee	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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

Site	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H		
Site Position:		Northing:	387,397.20 usft
From:	Map	Easting:	687,216.50 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 49.065 N
		Longitude:	103° 43' 44.350 W
		Grid Convergence:	0.32 °

Well	Big Sinks 1 A3 OB Fee		
Well Position	+N/-S	0.0 usft	Northing: 387,397.20 usft
	+E/-W	0.0 usft	Easting: 687,216.50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 3' 49.065 N
		Longitude:	103° 43' 44.350 W
		Ground Level:	3,250.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/5/2015	7.24	59.92	48,044

Design	Original Hole		
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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	356.19

Survey Program		Date 6/3/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,330.0	MS Gyro Survey #1 (Original Hole)	SRG-GYRO-MS	surface readout gyro multishot
8,443.0	14,295.0	Stryker MWD Survey (Original Hole)	MWD	MWD v3:standard declination

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	0.48	291.65	100.0	0.2	-0.4	0.2	0.48	0.48	0.00
200.0	0.51	298.44	200.0	0.5	-1.2	0.6	0.07	0.03	6.79
300.0	0.52	297.31	300.0	0.9	-2.0	1.1	0.01	0.01	-1.13
400.0	0.42	295.65	400.0	1.3	-2.7	1.5	0.10	-0.10	-1.66
500.0	0.29	288.50	500.0	1.5	-3.3	1.8	0.14	-0.13	-7.15
600.0	0.17	300.09	600.0	1.7	-3.6	1.9	0.13	-0.12	11.59
700.0	0.29	294.03	700.0	1.9	-4.0	2.1	0.12	0.12	-6.06
800.0	0.46	269.95	800.0	2.0	-4.6	2.3	0.23	0.17	-24.08

Stryker Directional Survey Report

Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Big Sinks 1 A3 OB Fee
Project:	Eddy County, New Mexico	TVD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Site:	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H	MD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Well:	Big Sinks 1 A3 OB Fee	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)
900.0	0.38	287.44	900.0	2.1	-5.3	2.4	0.15	-0.08	17.49
1,000.0	0.60	287.56	1,000.0	2.3	-6.2	2.7	0.22	0.22	0.12
1,100.0	0.58	298.20	1,100.0	2.7	-7.1	3.2	0.11	-0.02	10.64
1,200.0	0.56	301.89	1,200.0	3.2	-8.0	3.8	0.04	-0.02	3.69
1,300.0	0.46	302.36	1,300.0	3.7	-8.7	4.3	0.10	-0.10	0.47
1,400.0	0.34	328.45	1,400.0	4.2	-9.2	4.8	0.22	-0.12	26.09
1,500.0	0.51	339.97	1,500.0	4.8	-9.5	5.5	0.19	0.17	11.52
1,600.0	0.63	322.52	1,600.0	5.7	-10.0	6.4	0.21	0.12	-17.45
1,700.0	0.62	320.71	1,699.9	6.6	-10.7	7.2	0.02	-0.01	-1.81
1,800.0	1.05	317.20	1,799.9	7.6	-11.7	8.4	0.43	0.43	-3.51
1,900.0	1.22	314.33	1,899.9	9.1	-13.0	9.9	0.18	0.17	-2.87
2,000.0	0.82	324.80	1,999.9	10.4	-14.2	11.3	0.44	-0.40	10.47
2,100.0	0.14	129.44	2,099.9	10.9	-14.5	11.8	0.96	-0.68	164.64
2,200.0	0.30	180.49	2,199.9	10.6	-14.4	11.5	0.24	0.16	51.05
2,300.0	0.55	212.08	2,299.9	9.9	-14.7	10.8	0.33	0.25	31.59
2,400.0	0.73	234.91	2,399.9	9.1	-15.5	10.1	0.31	0.18	22.83
2,500.0	1.11	226.07	2,499.9	8.1	-16.7	9.2	0.40	0.38	-8.84
2,600.0	0.47	254.31	2,599.9	7.3	-17.8	8.5	0.73	-0.64	28.24
2,700.0	0.50	342.17	2,699.9	7.6	-18.3	8.8	0.67	0.03	87.86
2,800.0	0.63	335.99	2,799.9	8.5	-18.7	9.7	0.14	0.13	-6.18
2,900.0	0.67	328.46	2,899.9	9.5	-19.2	10.8	0.09	0.04	-7.53
3,000.0	0.74	309.30	2,999.8	10.4	-20.0	11.7	0.24	0.07	-19.16
3,100.0	0.89	312.69	3,099.8	11.4	-21.1	12.7	0.16	0.15	3.39
3,200.0	0.75	309.29	3,199.8	12.3	-22.2	13.7	0.15	-0.14	-3.40
3,300.0	0.89	311.53	3,299.8	13.2	-23.2	14.7	0.14	0.14	2.24
3,400.0	1.04	306.31	3,399.8	14.3	-24.6	15.9	0.17	0.15	-5.22
3,500.0	0.97	312.84	3,499.8	15.4	-25.9	17.1	0.13	-0.07	6.53
3,600.0	0.93	310.14	3,599.8	16.5	-27.1	18.3	0.06	-0.04	-2.70
3,700.0	0.70	306.43	3,699.8	17.4	-28.3	19.2	0.24	-0.23	-3.71
3,800.0	0.49	294.02	3,799.8	17.9	-29.1	19.8	0.25	-0.21	-12.41
3,900.0	0.21	198.40	3,899.8	17.9	-29.6	19.8	0.55	-0.28	-95.62
4,000.0	0.90	147.63	3,999.7	17.1	-29.2	19.0	0.78	0.69	-50.77
4,100.0	1.55	142.53	4,099.7	15.3	-28.0	17.2	0.66	0.65	-5.10
4,200.0	1.68	144.05	4,199.7	13.1	-26.3	14.8	0.14	0.13	1.52
4,300.0	1.66	148.80	4,299.6	10.7	-24.7	12.3	0.14	-0.02	4.75
4,400.0	1.32	142.18	4,399.6	8.5	-23.2	10.0	0.38	-0.34	-6.62
4,500.0	1.20	140.65	4,499.6	6.8	-21.9	8.2	0.12	-0.12	-1.53
4,600.0	1.11	150.03	4,599.6	5.1	-20.7	6.5	0.21	-0.09	9.38
4,700.0	1.11	147.81	4,699.5	3.5	-19.7	4.8	0.04	0.00	-2.22
4,800.0	0.93	154.70	4,799.5	1.9	-18.8	3.2	0.22	-0.18	6.89
4,900.0	0.86	166.53	4,899.5	0.5	-18.3	1.7	0.20	-0.07	11.83
5,000.0	0.70	175.50	4,999.5	-0.9	-18.1	0.3	0.20	-0.16	8.97

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Big Sinks 1 A3 OB Fee
Project:	Eddy County, New Mexico	TVD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Site:	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H	MD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Well:	Big Sinks 1 A3 OB Fee	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)
5,100.0	0.67	204.92	5,099.5	-2.0	-18.3	-0.8	0.35	-0.03	29.42
5,200.0	0.59	221.75	5,199.5	-2.9	-18.9	-1.7	0.20	-0.08	16.83
5,300.0	0.71	220.57	5,299.5	-3.8	-19.6	-2.5	0.12	0.12	-1.18
5,400.0	0.58	231.24	5,399.5	-4.6	-20.4	-3.2	0.18	-0.13	10.67
5,500.0	0.42	253.22	5,499.5	-5.0	-21.2	-3.6	0.25	-0.16	21.98
5,600.0	0.25	284.34	5,599.5	-5.0	-21.7	-3.6	0.24	-0.17	31.12
5,700.0	0.32	284.95	5,699.5	-4.9	-22.2	-3.4	0.07	0.07	0.61
5,800.0	0.25	327.33	5,799.5	-4.7	-22.6	-3.1	0.22	-0.07	42.38
5,900.0	0.19	282.78	5,899.5	-4.4	-22.9	-2.9	0.18	-0.06	-44.55
6,000.0	0.18	275.94	5,999.5	-4.4	-23.2	-2.8	0.02	-0.01	-6.84
6,100.0	0.10	354.54	6,099.5	-4.3	-23.4	-2.7	0.19	-0.08	78.60
6,200.0	0.12	359.10	6,199.5	-4.1	-23.4	-2.5	0.02	0.02	4.56
6,300.0	0.15	262.44	6,299.5	-4.0	-23.5	-2.4	0.20	0.03	-96.66
6,400.0	0.21	308.43	6,399.5	-3.9	-23.8	-2.3	0.15	0.06	45.99
6,500.0	0.15	232.36	6,499.5	-3.9	-24.0	-2.3	0.23	-0.06	-76.07
6,600.0	0.23	222.77	6,599.5	-4.1	-24.3	-2.5	0.09	0.08	-9.59
6,700.0	0.48	204.59	6,699.5	-4.6	-24.6	-3.0	0.27	0.25	-18.18
6,800.0	0.54	214.52	6,799.5	-5.4	-25.0	-3.7	0.11	0.06	9.93
6,900.0	0.83	209.01	6,899.5	-6.4	-25.6	-4.7	0.30	0.29	-5.51
7,000.0	1.26	190.46	6,999.4	-8.1	-26.2	-6.4	0.54	0.43	-18.55
7,100.0	1.15	184.81	7,099.4	-10.2	-26.5	-8.4	0.16	-0.11	-5.65
7,200.0	1.26	188.59	7,199.4	-12.3	-26.7	-10.5	0.14	0.11	3.78
7,300.0	1.19	198.47	7,299.4	-14.4	-27.2	-12.5	0.22	-0.07	9.88
7,400.0	1.19	206.64	7,399.4	-16.3	-28.0	-14.4	0.17	0.00	8.17
7,500.0	1.22	197.61	7,499.3	-18.2	-28.8	-16.3	0.19	0.03	-9.03
7,600.0	1.08	178.15	7,599.3	-20.2	-29.1	-18.2	0.41	-0.14	-19.46
7,700.0	1.14	170.81	7,699.3	-22.1	-28.9	-20.1	0.15	0.06	-7.34
7,800.0	1.18	170.94	7,799.3	-24.1	-28.6	-22.2	0.04	0.04	0.13
7,900.0	1.43	176.36	7,899.2	-26.4	-28.3	-24.4	0.28	0.25	5.42
8,000.0	1.33	172.86	7,999.2	-28.8	-28.1	-26.8	0.13	-0.10	-3.50
8,100.0	1.39	186.18	8,099.2	-31.1	-28.1	-29.2	0.32	0.06	13.32
8,200.0	1.36	186.05	8,199.2	-33.5	-28.4	-31.6	0.03	-0.03	-0.13
8,300.0	1.16	211.26	8,299.1	-35.6	-29.0	-33.6	0.58	-0.20	25.21
8,330.0	1.12	221.64	8,329.1	-36.0	-29.4	-34.0	0.70	-0.13	34.60
8330' MD MS Gyro Survey									
8,443.0	1.20	293.90	8,442.1	-36.4	-31.2	-34.2	1.21	0.07	63.95
8,475.0	2.70	327.10	8,474.1	-35.6	-31.9	-33.4	5.68	4.69	103.75
8,507.0	5.10	342.70	8,506.0	-33.6	-32.7	-31.4	8.13	7.50	48.75
8,538.0	7.60	352.60	8,536.8	-30.3	-33.4	-28.0	8.78	8.06	31.94
8,570.0	10.10	350.00	8,568.4	-25.4	-34.2	-23.1	7.91	7.81	-8.13
8,601.0	12.80	349.30	8,598.8	-19.4	-35.3	-17.0	8.72	8.71	-2.26
8,633.0	15.20	348.30	8,629.9	-11.8	-36.8	-9.3	7.54	7.50	-3.13
8,665.0	17.30	347.70	8,660.6	-3.0	-38.6	-0.4	6.58	6.56	-1.88

Stryker Directional Survey Report

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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)
8,697.0	20.00	349.60	8,690.9	7.0	-40.6	9.7	8.65	8.44	5.94
8,728.0	22.80	347.90	8,719.8	18.1	-42.9	20.9	9.25	9.03	-5.48
8,760.0	24.90	348.40	8,749.0	30.8	-45.5	33.7	6.59	6.56	1.56
8,792.0	26.80	347.50	8,777.8	44.4	-48.4	47.5	6.06	5.94	-2.81
8,823.0	28.10	348.90	8,805.3	58.4	-51.4	61.7	4.68	4.19	4.52
8,855.0	30.10	348.80	8,833.3	73.7	-54.4	77.1	6.25	6.25	-0.31
8,887.0	32.70	349.20	8,860.6	90.0	-57.5	93.7	8.15	8.13	1.25
8,918.0	34.60	349.30	8,886.4	106.9	-60.7	110.7	6.13	6.13	0.32
8,950.0	36.50	348.10	8,912.4	125.2	-64.4	129.2	6.32	5.94	-3.75
8,981.0	39.80	346.60	8,936.8	143.8	-68.6	148.1	11.06	10.65	-4.84
9,013.0	44.50	345.50	8,960.5	164.7	-73.8	169.2	14.87	14.69	-3.44
9,044.0	48.80	345.50	8,981.8	186.5	-79.4	191.4	13.87	13.87	0.00
9,076.0	54.10	348.40	9,001.8	210.9	-85.1	216.0	18.01	16.56	9.06
9,108.0	58.00	351.30	9,019.6	237.0	-89.7	242.4	14.32	12.19	9.06
9,139.0	60.70	355.00	9,035.4	263.5	-92.9	269.0	13.46	8.71	11.94
9,171.0	65.40	356.70	9,049.9	291.9	-94.9	297.6	15.43	14.69	5.31
9,202.0	70.90	357.10	9,061.5	320.6	-96.5	326.3	17.78	17.74	1.29
9,234.0	75.00	359.90	9,070.8	351.2	-97.3	356.9	15.30	12.81	8.75
9,266.0	76.30	1.60	9,078.8	382.2	-96.9	387.8	6.56	4.06	5.31
9,297.0	75.80	1.90	9,086.3	412.3	-96.0	417.7	1.87	-1.61	0.97
9,329.0	77.60	1.80	9,093.6	443.4	-94.9	448.7	5.63	5.63	-0.31
9,360.0	82.30	0.00	9,099.0	473.9	-94.5	479.1	16.20	15.16	-5.81
9,392.0	84.20	359.90	9,102.8	505.7	-94.5	510.8	5.95	5.94	-0.31
9,424.0	84.50	0.20	9,105.9	537.5	-94.5	542.6	1.32	0.94	0.94
9,448.0	86.90	359.40	9,107.7	561.4	-94.6	566.5	10.54	10.00	-3.33
9,525.0	92.60	356.80	9,108.1	638.4	-97.1	643.4	8.14	7.40	-3.38
9,556.0	90.90	355.80	9,107.1	669.3	-99.1	674.4	6.36	-5.48	-3.23
9,588.0	90.50	355.80	9,106.7	701.2	-101.5	706.4	1.25	-1.25	0.00
9,619.0	89.50	356.00	9,106.7	732.1	-103.7	737.4	3.29	-3.23	0.65
9,651.0	90.00	355.80	9,106.9	764.0	-106.0	769.4	1.68	1.56	-0.63
9,683.0	89.00	356.10	9,107.1	795.9	-108.2	801.4	3.26	-3.13	0.94
9,714.0	86.80	357.20	9,108.3	826.9	-110.0	832.4	7.93	-7.10	3.55
9,778.0	87.30	356.50	9,111.6	890.7	-113.5	896.3	1.34	0.78	-1.09
9,841.0	87.70	356.40	9,114.3	953.5	-117.4	959.2	0.65	0.63	-0.16
9,904.0	91.20	357.60	9,114.9	1,016.4	-120.7	1,022.2	5.87	5.56	1.90
9,999.0	92.20	357.90	9,112.1	1,111.3	-124.5	1,117.1	1.10	1.05	0.32
10,094.0	91.90	359.40	9,108.7	1,206.2	-126.7	1,212.0	1.61	-0.32	1.58
10,189.0	90.30	359.00	9,106.9	1,301.2	-128.0	1,306.8	1.74	-1.68	-0.42
10,282.0	88.10	358.90	9,108.2	1,394.1	-129.7	1,399.7	2.37	-2.37	-0.11
10,377.0	90.20	359.30	9,109.6	1,489.1	-131.2	1,494.5	2.25	2.21	0.42
10,471.0	87.90	357.60	9,111.2	1,583.1	-133.8	1,588.4	3.04	-2.45	-1.81
10,566.0	87.60	356.50	9,114.9	1,677.9	-138.6	1,683.4	1.20	-0.32	-1.16

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Big Sinks 1 A3 OB Fee
Project:	Eddy County, New Mexico	TVD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Site:	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H	MD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Well:	Big Sinks 1 A3 OB Fee	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)
10,661.0	88.20	356.70	9,118.4	1,772.6	-144.3	1,778.3	0.67	0.63	0.21
10,755.0	90.50	357.00	9,119.4	1,866.5	-149.4	1,872.3	2.47	2.45	0.32
10,850.0	91.10	356.40	9,118.1	1,961.3	-154.9	1,967.3	0.89	0.63	-0.63
10,945.0	91.50	354.50	9,116.0	2,056.0	-162.4	2,062.2	2.04	0.42	-2.00
11,040.0	89.90	356.30	9,114.8	2,150.7	-170.1	2,157.2	2.53	-1.68	1.89
11,135.0	88.70	356.70	9,116.0	2,245.5	-175.9	2,252.2	1.33	-1.26	0.42
11,229.0	88.00	355.60	9,118.7	2,339.2	-182.2	2,346.1	1.39	-0.74	-1.17
11,324.0	90.90	356.90	9,119.6	2,434.0	-188.4	2,441.1	3.35	3.05	1.37
11,419.0	91.20	355.40	9,117.8	2,528.8	-194.8	2,536.1	1.61	0.32	-1.58
11,513.0	90.60	355.00	9,116.4	2,622.4	-202.6	2,630.1	0.77	-0.64	-0.43
11,608.0	88.50	354.10	9,117.1	2,717.0	-211.6	2,725.0	2.40	-2.21	-0.95
11,703.0	88.20	354.10	9,119.8	2,811.4	-221.4	2,819.9	0.32	-0.32	0.00
11,798.0	88.40	355.30	9,122.7	2,906.0	-230.2	2,914.9	1.28	0.21	1.26
11,892.0	89.50	356.10	9,124.4	2,999.7	-237.2	3,008.8	1.45	1.17	0.85
11,987.0	89.90	357.30	9,124.9	3,094.5	-242.7	3,103.8	1.33	0.42	1.26
12,081.0	89.30	356.70	9,125.5	3,188.4	-247.6	3,197.8	0.90	-0.64	-0.64
12,176.0	90.40	0.30	9,125.8	3,283.4	-250.1	3,292.7	3.96	1.16	3.79
12,271.0	89.40	1.00	9,125.9	3,378.4	-249.0	3,387.4	1.28	-1.05	0.74
12,366.0	90.20	1.30	9,126.3	3,473.3	-247.1	3,482.1	0.90	0.84	0.32
12,461.0	91.00	1.60	9,125.3	3,568.3	-244.7	3,576.7	0.90	0.84	0.32
12,556.0	92.10	2.00	9,122.7	3,663.2	-241.7	3,671.2	1.23	1.16	0.42
12,651.0	89.10	359.00	9,121.7	3,758.2	-240.9	3,765.9	4.47	-3.16	-3.16
12,746.0	87.70	358.10	9,124.4	3,853.1	-243.3	3,860.8	1.75	-1.47	-0.95
12,841.0	89.10	358.40	9,127.0	3,948.0	-246.2	3,955.7	1.51	1.47	0.32
12,937.0	91.30	356.90	9,126.7	4,043.9	-250.1	4,051.6	2.77	2.29	-1.56
13,032.0	90.60	356.90	9,125.1	4,138.8	-255.3	4,146.6	0.74	-0.74	0.00
13,127.0	87.10	356.40	9,127.0	4,233.6	-260.8	4,241.6	3.72	-3.68	-0.53
13,221.0	86.00	357.30	9,132.7	4,327.3	-266.0	4,335.4	1.51	-1.17	0.96
13,316.0	92.60	357.30	9,133.8	4,422.1	-270.5	4,430.3	6.95	6.95	0.00
13,411.0	92.40	356.40	9,129.7	4,516.9	-275.7	4,525.2	0.97	-0.21	-0.95
13,506.0	91.40	355.70	9,126.5	4,611.6	-282.2	4,620.2	1.28	-1.05	-0.74
13,601.0	90.40	354.70	9,125.0	4,706.2	-290.2	4,715.1	1.49	-1.05	-1.05
13,696.0	90.00	355.80	9,124.7	4,800.9	-298.0	4,810.1	1.23	-0.42	1.16
13,791.0	88.80	355.40	9,125.7	4,895.6	-305.3	4,905.1	1.33	-1.26	-0.42
13,886.0	87.50	354.70	9,128.8	4,990.2	-313.5	5,000.0	1.55	-1.37	-0.74
13,981.0	89.10	359.20	9,131.6	5,085.0	-318.6	5,095.0	5.03	1.68	4.74
14,075.0	87.80	358.60	9,134.1	5,179.0	-320.4	5,188.8	1.52	-1.38	-0.64
14,170.0	91.70	359.40	9,134.6	5,273.9	-322.0	5,283.7	4.19	4.11	0.84
14,249.0	91.40	358.60	9,132.4	5,352.9	-323.4	5,362.6	1.08	-0.38	-1.01
14,295.0	91.00	358.00	9,131.5	5,398.9	-324.8	5,408.5	1.57	-0.87	-1.30

14295' MD Projected to Bit

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Big Sinks 1 A3 OB Fee
Project:	Eddy County, New Mexico	TVD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Site:	Section 12/1-26S-31E Big Sinks 1 A3 OB Fee #2H	MD Reference:	GL 3250+20 @ 3270.0usft (Patterson #187)
Well:	Big Sinks 1 A3 OB Fee	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,330.0	8,329.1	-36.0	-29.4	8330' MD MS Gyro Survey
14,295.0	9,131.5	5,398.9	-324.8	14295' MD Projected to Bit



Job Number: SVMO-150394
 Company: Mewbourne Oil & Gas
 Lease/Well: Big Sinks 1 A3OB Fee 002H
 Location: Lea County, NM
 Rig Name: Patterson #187
 RKB: 27'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 6.92°
 Grid: East To Grid North
 File name: W:\WINSER~1\2015SU~1\MEWBOU~1\MO\BIGSIN~1\1A3OBFEE\002H.SVY
 Date/Time: 22-May-15 / 10:44
 Curve Name: Surface - 8330' M.D. (Rate Gyro)

NM OIL CONSERVATION

ARTESIA DISTRICT

AUG 31 2015

RECEIVED

MS Survey

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 356.20
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 8330' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Joseph Brock 5/22/15
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.48	291.65	100.00	.15	-.39	.18	.42	291.65	.48
200.00	.51	298.44	200.00	.52	-1.17	.60	1.28	294.01	.07
300.00	.52	297.31	299.99	.94	-1.96	1.07	2.18	295.60	.01
400.00	.42	295.65	399.99	1.31	-2.70	1.48	3.00	295.86	.10
500.00	.29	288.50	499.99	1.55	-3.27	1.76	3.62	295.33	.14
600.00	.17	300.09	599.98	1.70	-3.64	1.94	4.02	295.07	.13
700.00	.29	294.03	699.98	1.88	-4.00	2.14	4.42	295.18	.12
800.00	.46	269.95	799.98	1.98	-4.63	2.28	5.04	293.18	.23
900.00	.38	287.44	899.98	2.08	-5.35	2.43	5.74	291.27	.15
1000.00	.60	287.56	999.98	2.34	-6.16	2.74	6.59	290.78	.22
1100.00	.58	298.20	1099.97	2.74	-7.11	3.20	7.62	291.05	.11
1200.00	.56	301.89	1199.97	3.23	-7.97	3.75	8.60	292.08	.04

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1300.00	.46	302.36	1299.96	3.71	-8.72	4.28	9.48	293.02	.10
1400.00	.34	328.45	1399.96	4.17	-9.22	4.78	10.12	294.36	.22
1500.00	.51	339.97	1499.96	4.84	-9.52	5.46	10.69	296.96	.19
1600.00	.63	322.52	1599.95	5.70	-10.01	6.35	11.52	299.65	.21
1700.00	.62	320.71	1699.95	6.55	-10.69	7.25	12.54	301.51	.02
1800.00	1.05	317.20	1799.93	7.64	-11.65	8.40	13.94	303.26	.43
1900.00	1.22	314.33	1899.91	9.06	-13.04	9.91	15.88	304.80	.18
2000.00	.82	324.80	1999.90	10.39	-14.21	11.31	17.60	306.17	.44
2100.00	.14	129.44	2099.90	10.90	-14.53	11.84	18.16	306.87	.96
2200.00	.30	180.49	2199.90	10.56	-14.44	11.49	17.89	306.18	.24
2300.00	.55	212.08	2299.89	9.89	-14.69	10.84	17.71	303.94	.33
2400.00	.73	234.91	2399.89	9.12	-15.47	10.12	17.96	300.51	.31
2500.00	1.11	226.07	2499.87	8.08	-16.69	9.17	18.54	295.83	.40
2600.00	.47	254.31	2599.86	7.29	-17.78	8.46	19.22	292.31	.73
2700.00	.50	342.17	2699.86	7.60	-18.31	8.80	19.83	292.54	.67
2800.00	.63	335.99	2799.86	8.52	-18.67	9.74	20.52	294.52	.14
2900.00	.67	328.46	2899.85	9.52	-19.20	10.77	21.43	296.37	.09
3000.00	.74	309.30	2999.84	10.42	-20.00	11.73	22.56	297.53	.24
3100.00	.89	312.69	3099.83	11.36	-21.07	12.73	23.94	298.33	.16
3200.00	.75	309.29	3199.82	12.30	-22.15	13.74	25.34	299.04	.15
3300.00	.89	311.53	3299.81	13.23	-23.24	14.74	26.74	299.65	.14
3400.00	1.04	306.31	3399.80	14.28	-24.55	15.88	28.40	300.19	.17
3500.00	.97	312.84	3499.78	15.40	-25.90	17.08	30.13	300.73	.13
3600.00	.93	310.14	3599.77	16.49	-27.14	18.26	31.76	301.29	.06
3700.00	.70	306.43	3699.76	17.38	-28.26	19.22	33.17	301.60	.24
3800.00	.49	294.02	3799.75	17.92	-29.14	19.81	34.21	301.59	.25
3900.00	.21	198.40	3899.75	17.92	-29.59	19.84	34.59	301.20	.55
4000.00	.90	147.63	3999.75	17.08	-29.22	18.98	33.85	300.30	.78
4100.00	1.55	142.53	4099.72	15.34	-27.98	17.16	31.91	298.74	.66
4200.00	1.68	144.05	4199.68	13.08	-26.30	14.80	29.37	296.45	.14
4300.00	1.66	148.80	4299.64	10.66	-24.69	12.27	26.89	293.35	.14
4400.00	1.32	142.18	4399.61	8.51	-23.23	10.03	24.74	290.12	.38
4500.00	1.20	140.65	4499.58	6.79	-21.86	8.22	22.89	287.25	.12
4600.00	1.11	150.03	4599.56	5.14	-20.71	6.50	21.34	283.94	.21

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4700.00	1.11	147.81	4699.54	3.48	-19.71	4.78	20.02	280.02	.04
4800.00	.93	154.70	4799.53	1.93	-18.85	3.17	18.95	275.84	.22
4900.00	.86	166.53	4899.52	.47	-18.33	1.68	18.33	271.45	.20
5000.00	.70	175.50	4999.51	-.87	-18.11	.33	18.13	267.24	.20
5100.00	.67	204.92	5099.50	-2.01	-18.30	-.80	18.41	263.72	.35
5200.00	.59	221.75	5199.49	-2.93	-18.89	-1.67	19.12	261.19	.20
5300.00	.71	220.57	5299.49	-3.78	-19.64	-2.47	20.00	259.10	.12
5400.00	.58	231.24	5399.48	-4.57	-20.44	-3.21	20.94	257.40	.18
5500.00	.42	253.22	5499.48	-4.99	-21.18	-3.58	21.76	256.74	.25
5600.00	.25	284.34	5599.48	-5.04	-21.74	-3.59	22.32	256.94	.24
5700.00	.32	284.95	5699.47	-4.92	-22.23	-3.43	22.76	257.52	.07
5800.00	.25	327.33	5799.47	-4.66	-22.61	-3.15	23.09	258.35	.22
5900.00	.19	282.78	5899.47	-4.44	-22.89	-2.92	23.32	259.02	.18
6000.00	.18	275.94	5999.47	-4.39	-23.21	-2.84	23.62	259.29	.02
6100.00	.10	354.54	6099.47	-4.29	-23.38	-2.73	23.76	259.61	.19
6200.00	.12	359.10	6199.47	-4.09	-23.39	-2.54	23.74	260.07	.02
6300.00	.15	262.44	6299.47	-4.01	-23.52	-2.44	23.86	260.33	.20
6400.00	.21	308.43	6399.47	-3.91	-23.79	-2.32	24.11	260.67	.15
6500.00	.15	232.36	6499.47	-3.88	-24.04	-2.27	24.35	260.84	.23
6600.00	.23	222.77	6599.47	-4.10	-24.28	-2.49	24.62	260.41	.09
6700.00	.48	204.59	6699.47	-4.63	-24.59	-2.99	25.02	259.33	.27
6800.00	.54	214.52	6799.46	-5.40	-25.03	-3.73	25.60	257.82	.11
6900.00	.83	209.01	6899.46	-6.42	-25.65	-4.71	26.44	255.94	.30
7000.00	1.26	190.46	6999.44	-8.14	-26.20	-6.38	27.43	252.75	.54
7100.00	1.15	184.81	7099.42	-10.22	-26.48	-8.44	28.38	248.90	.16
7200.00	1.26	188.59	7199.40	-12.31	-26.73	-10.51	29.43	245.28	.14
7300.00	1.19	198.47	7299.37	-14.38	-27.22	-12.54	30.79	242.16	.22
7400.00	1.19	206.64	7399.35	-16.29	-28.02	-14.40	32.41	239.82	.17
7500.00	1.22	197.61	7499.33	-18.23	-28.81	-16.28	34.09	237.67	.19
7600.00	1.08	178.15	7599.31	-20.19	-29.10	-18.22	35.42	235.24	.41
7700.00	1.14	170.81	7699.29	-22.11	-28.91	-20.15	36.40	232.58	.15
7800.00	1.18	170.94	7799.27	-24.11	-28.59	-22.17	37.40	229.85	.04
7900.00	1.43	176.36	7899.25	-26.37	-28.35	-24.44	38.72	227.06	.28
8000.00	1.33	172.86	7999.22	-28.77	-28.12	-26.84	40.23	224.35	.13