



August 14, 2014

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 28 2014

Survey Certification Report

RECEIVED

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 July 11, 2014 thru July 22, 2014, conduct or supervise the taking of a SEDS MWD Survey from a depth of 8,306 feet to 13,126 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 Ruger 31 LI Federal Com #001H well, API # 30-015-41679 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

A handwritten signature in black ink that reads "Todd Estes". The signature is written in a cursive style and is positioned above 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



Job Number: M141145
 Company: Mewbourne Oil Company
 Lease/Well: Ruger 31 LI Federal # 1 H
 Location: Eddy County
 Rig Name: Patterson Rig # 80
 RKB: N/A
 G.L. or M.S.L.: N/A

State/Country: New Mexico / USA
 Declination: 7.38° Corrected To Grid
 Grid: 7.38°
 File name: C:\WINSERVE\DOCS\M141145.SVY
 Date/Time: 14-Aug-14 / 09:18
 Curve Name: SES MWD SURVEY RAN ON 7-11-14

Styker Energy Directional Services, LLC.

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 85.99°
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

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
Tie-In Data Provided by VES Gyro Survey									
8230.00	1.49	122.57	8226.51	58.67	64.44	68.39	87.15	47.68	.00
8306.00	3.40	123.40	8302.44	56.90	67.15	70.97	88.02	49.73	2.51
8337.00	7.70	103.00	8333.29	55.92	69.95	73.69	89.55	51.36	15.05
8369.00	12.00	93.20	8364.81	55.26	75.36	79.04	93.45	53.75	14.38
8401.00	15.70	86.50	8395.88	55.33	83.01	86.67	99.76	56.31	12.58
8433.00	17.80	83.50	8426.52	56.15	92.19	95.89	107.94	58.65	7.09
8465.00	20.50	82.60	8456.74	57.43	102.61	106.37	117.58	60.76	8.49
8496.00	24.10	83.30	8485.42	58.87	114.28	118.12	128.55	62.75	11.64
8528.00	25.70	84.40	8514.45	60.31	127.67	131.58	141.20	64.72	5.21
8560.00	28.60	86.00	8542.92	61.52	142.22	146.18	154.96	66.61	9.34
8592.00	32.80	84.00	8570.43	62.96	158.49	162.51	170.54	68.34	13.51
8623.00	37.40	85.30	8595.78	64.61	176.23	180.32	187.70	69.87	15.03
8655.00	39.10	84.90	8620.91	66.30	195.97	200.13	206.88	71.31	5.37
8687.00	40.00	83.30	8645.59	68.40	216.24	220.49	226.80	72.45	4.25
8718.00	42.70	86.00	8668.86	70.29	236.63	240.96	246.85	73.45	10.44
8750.00	47.30	86.80	8691.48	71.71	259.20	263.58	268.94	74.54	14.48
8781.00	49.90	87.90	8711.98	72.78	282.43	286.83	291.65	75.55	8.80
8813.00	52.00	89.00	8732.14	73.45	307.27	311.65	315.92	76.56	7.08
8845.00	54.20	89.00	8751.35	73.89	332.85	337.20	340.96	77.48	6.87
8877.00	57.00	88.60	8769.43	74.45	359.25	363.57	366.88	78.29	8.81
8909.00	59.60	88.80	8786.24	75.07	386.46	390.77	393.69	79.01	8.14
8941.00	63.10	89.10	8801.58	75.58	414.54	418.81	421.37	79.67	10.97
8972.00	66.10	89.30	8814.88	75.97	442.53	446.76	449.01	80.26	9.69
9004.00	69.40	88.80	8826.99	76.46	472.14	476.33	478.29	80.80	10.41

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	
9036.00	72.60	87.90	8837.41	77.33 ^{ab}	502.38 ^{2a}	506.56	508.30	81.25	10.35
9068.00	75.40	86.10	8846.23	78.95	533.10	537.31	538.91	81.58	10.29
9100.00	79.00	84.40	8853.32	81.53	564.19	568.51	570.05	81.78	12.39
9132.00	82.50	82.80	8858.46	85.06	595.57	600.06	601.61	81.87	12.00
9164.00	85.20	82.40	8861.89	89.15	627.12	631.82	633.42	81.91	8.53
9196.00	85.80	83.00	8864.40	93.21	658.76	663.66	665.32	81.95	2.65
9228.00	86.30	84.60	8866.60	96.66	690.49	695.56	697.23	82.03	5.23
9259.00	87.20	85.40	8868.36	99.35	721.33	726.51	728.14	82.16	3.88
9291.00	87.80	85.60	8869.76	101.86	753.20	758.48	760.05	82.30	1.98
9323.00	88.00	85.40	8870.93	104.37	785.08	790.45	791.98	82.43	.88
9419.00	91.50	87.70	8871.35	110.15	880.88	886.43	887.74	82.87	4.36
9515.00	89.10	88.20	8870.85	113.58	976.81	982.36	983.39	83.37	2.55
9610.00	89.30	87.70	8872.17	116.98	1071.74	1077.30	1078.11	83.77	.57
9705.00	88.50	87.70	8874.00	120.79	1166.65	1172.24	1172.88	84.09	.84
9801.00	89.10	87.90	8876.01	124.47	1262.55	1268.17	1268.67	84.37	.66
9896.00	89.90	87.00	8876.84	128.70	1357.45	1363.13	1363.54	84.58	1.27
9991.00	90.70	86.80	8876.34	133.84	1452.31	1458.12	1458.47	84.73	.87
10087.00	91.20	86.00	8874.75	139.86	1548.11	1554.10	1554.41	84.84	.98
10183.00	88.30	87.20	8875.17	145.56	1643.93	1650.08	1650.36	84.94	3.27
10278.00	88.50	87.00	8877.82	150.36	1738.77	1745.03	1745.26	85.06	.30
10374.00	87.90	86.30	8880.83	155.97	1834.56	1840.97	1841.17	85.14	.96
10469.00	89.10	87.70	8883.32	160.94	1929.39	1935.92	1936.09	85.23	1.94
10564.00	89.10	87.40	8884.81	165.00	2024.29	2030.87	2031.00	85.34	.32
10660.00	89.90	87.70	8885.65	169.10	2120.20	2126.83	2126.93	85.44	.89
10755.00	89.70	87.40	8885.98	173.16	2215.11	2221.80	2221.87	85.53	.38
10850.00	90.00	86.70	8886.23	178.05	2309.98	2316.78	2316.84	85.59	.80
10944.00	90.70	86.50	8885.66	183.63	2403.82	2410.77	2410.82	85.63	.77
11038.00	89.20	86.30	8885.74	189.53	2497.63	2504.77	2504.81	85.66	1.61
11134.00	90.00	85.80	8886.41	196.14	2593.40	2600.76	2600.80	85.67	.98
11228.00	87.90	87.40	8888.13	201.72	2687.21	2694.73	2694.77	85.71	2.81
11323.00	88.50	87.50	8891.12	205.94	2782.07	2789.66	2789.68	85.77	.64
11419.00	87.70	87.00	8894.30	210.54	2877.90	2885.58	2885.59	85.82	.98
11514.00	87.20	86.80	8898.53	215.68	2972.67	2980.47	2980.48	85.85	.57
11609.00	88.70	86.10	8901.92	221.55	3067.42	3075.41	3075.41	85.87	1.74
11704.00	89.30	86.10	8903.58	228.01	3162.19	3170.39	3170.40	85.88	.63
11799.00	89.50	86.50	8904.58	234.14	3256.98	3265.38	3265.39	85.89	.47
11894.00	90.10	86.10	8904.91	240.28	3351.78	3360.38	3360.39	85.90	.76
11989.00	89.40	85.60	8905.32	247.15	3446.53	3455.38	3455.38	85.90	.91
12085.00	90.70	84.90	8905.24	255.10	3542.20	3551.37	3551.37	85.88	1.54
12180.00	92.00	84.00	8903.00	264.28	3636.73	3646.30	3646.32	85.84	1.66
12275.00	90.10	85.10	8901.26	273.30	3731.28	3741.25	3741.27	85.81	2.31
12371.00	90.70	84.90	8900.59	281.67	3826.91	3837.24	3837.26	85.79	.66
12466.00	90.00	86.70	8900.01	288.63	3921.65	3932.23	3932.25	85.79	2.03
12562.00	89.90	86.70	8900.09	294.15	4017.49	4028.22	4028.24	85.81	.10
12657.00	89.70	87.20	8900.42	299.21	4112.35	4123.21	4123.22	85.84	.57

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	
12752.00	87.70	87.40	8902.58	303.68	4207.22	4218.15	4218.16	85.87	2.12
12847.00	88.10	86.80	8906.06	308.49	4302.03	4313.07	4313.08	85.90	.76
12942.00	89.60	86.00	8907.97	314.45	4396.82	4408.05	4408.05	85.91	1.79
13038.00	88.90	85.80	8909.22	321.31	4492.57	4504.04	4504.04	85.91	.76
13126.00	90.40	86.70	8909.76	327.07	4580.37	4592.03	4592.03	85.92	1.99

Projection to Total Depth									
13180.00	90.40	86.70	8909.38	330.18	4634.28	4646.03	4646.03	85.92	.00