



PHOENIX

TECHNOLOGY SERVICES USA INC.

Celebrating 20 Years of Focused Solutions

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

May 18, 2016

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 23 2016

Dear District 2 - Artesia

Attention: Regulatory Department

RECEIVED

Re: Mewbourne Oil
Owl Draw 27 W2NC Fed Com #2H
Eddy County, NM
API #30-015-43684
Job No. 1610282

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Roger Hill	2H	0	9122	05/12/16	05/12/16	Gyro

A certified plat on which the bottom hole location is oriented both to the 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.

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 #: 1610282

Well Name: Owl Draw 27 W2NC Fed Com # 2H

County/State: Eddy Co., NM

Survey Instrument Type: North Seek Rate Gyro

API # 30-015-43684

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 (°)
2016-05-12	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-05-12	9122	0.6	125.59

Projected TD Survey

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

Grid Correction
-0.08

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:

05/12/16

Print Name: Roger Hill

Signature:

[Signature]



PHOENIX

TECHNOLOGY SERVICES

Company: Mewbourne
Well: Owl Draw 27 WZNC Fed Com2H
Location: Eddy Co., NM
Rig: Patterson 250

Job Number: 1610282
Grid Corr.: -0.08
Lat: 32.01
Long: -104.18

Date: 05-12-16
Calculation Method: Minimum Curvature
Proposed Azimuth: 359.96
RKB - MSL in feet: 27 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)			
FIELD COPY, NON-DEFINITIVE													
TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.25	337.71	100	100.00	0.20	0.20 N	0.08 W	0.22	337.71	0.25	0.25	337.71
	200.00	0.35	248.25	100	200.00	0.29	0.29 N	0.45 W	0.53	302.90	0.43	0.10	-89.46
	300.00	0.85	11.15	100	300.00	0.91	0.91 N	0.59 W	1.08	326.93	1.08	0.50	-237.10
	400.00	1.40	246.46	100	399.98	1.15	1.14 N	1.57 W	1.94	306.17	2.01	0.55	235.31
	500.00	1.33	243.77	100	499.96	0.15	0.14 N	3.73 W	3.73	272.22	0.09	-0.07	-2.69
	600.00	1.46	241.58	100	599.93	-0.97	0.98 S	5.89 W	5.97	260.60	0.14	0.13	-2.19
	700.00	1.97	243.61	100	699.88	-2.34	2.35 S	8.55 W	8.86	254.66	0.51	0.51	2.03
	800.00	2.22	246.15	100	799.81	-3.88	3.89 S	11.86 W	12.48	251.83	0.27	0.25	2.54
	900.00	0.99	326.56	100	899.78	-3.94	3.95 S	14.11 W	14.65	254.34	2.28	-1.23	80.41
	1000.00	1.39	207.62	100	999.77	-4.30	4.31 S	15.15 W	15.75	254.12	2.06	0.40	-118.94
	1100.00	1.12	213.52	100	1099.75	-6.19	6.20 S	16.25 W	17.39	249.12	0.30	-0.27	5.90
	1200.00	1.67	201.19	100	1199.72	-8.36	8.37 S	17.31 W	19.23	244.20	0.62	0.55	-12.33
	1300.00	0.98	80.22	100	1299.70	-9.57	9.58 S	17.00 W	19.51	240.58	2.33	-0.69	-120.97
	1400.00	1.26	14.89	100	1399.69	-8.37	8.38 S	15.87 W	17.95	242.18	1.23	0.28	-65.33
	1500.00	1.75	12.67	100	1499.65	-5.81	5.82 S	15.26 W	16.33	249.10	0.49	0.49	-2.22
	1600.00	0.25	71.72	100	1599.64	-4.26	4.27 S	14.71 W	15.32	253.83	1.64	-1.50	59.05
	1700.00	0.39	265.62	100	1699.63	-4.21	4.22 S	14.85 W	15.43	254.12	0.64	0.14	193.90
	1800.00	0.88	256.46	100	1799.63	-4.42	4.43 S	15.93 W	16.54	254.46	0.50	0.49	-9.16
	1900.00	0.42	109.03	100	1899.63	-4.72	4.73 S	16.33 W	17.00	253.85	1.25	-0.46	-147.43
	2000.00	0.50	110.04	100	1999.62	-4.99	5.00 S	15.58 W	16.36	252.21	0.08	0.08	1.01
	2100.00	0.36	213.81	100	2099.62	-5.40	5.41 S	15.34 W	16.27	250.58	0.68	-0.14	103.77
	2200.00	0.36	84.27	100	2199.62	-5.63	5.64 S	15.20 W	16.21	249.65	0.65	0.00	-129.54
	2300.00	0.28	99.06	100	2299.62	-5.64	5.65 S	14.65 W	15.70	248.92	0.11	-0.08	14.79
	2400.00	0.41	206.60	100	2399.62	-5.99	6.00 S	14.57 W	15.76	247.60	0.56	0.13	107.54
	2500.00	0.32	118.76	100	2499.62	-6.45	6.46 S	14.48 W	15.86	245.97	0.51	-0.09	-87.84
	2600.00	0.45	53.01	100	2599.61	-6.35	6.36 S	13.92 W	15.31	245.46	0.43	0.13	-65.75
	2700.00	0.62	201.76	100	2699.61	-6.61	6.62 S	13.81 W	15.32	244.38	1.03	0.17	148.75



PHOENIX

TECHNOLOGY SERVICES

Company: Mewbourne
Well: Owl Draw 27 W2NC Fed Com2H
Location: Eddy Co., NM
Rig: Patterson 250

Job Number: 1610282
Grid Corr.: -0.08
Lat: 32.01
Long: -104.18

Calculation Method: Minimum Curvature
Proposed Azimuth: 359.96
RKB - MSL in feet: 27 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')
	2800.00	0.22	340.66	100	2799.61	-6.93	6.94 S	14.08 W	15.70	243.74	0.80	-0.40	138.90
	2900.00	0.49	191.15	100	2899.61	-7.17	7.18 S	14.22 W	15.93	243.21	0.69	0.27	-149.51
	3000.00	0.94	244.94	100	2999.60	-7.94	7.95 S	15.05 W	17.02	242.15	0.76	0.45	53.79
	3100.00	0.41	298.26	100	3099.60	-8.12	8.13 S	16.11 W	18.04	243.22	0.77	-0.53	53.32
	3200.00	0.88	4.60	100	3199.59	-7.18	7.19 S	16.36 W	17.87	246.27	0.81	0.47	-293.66
	3300.00	0.67	351.28	100	3299.58	-5.84	5.85 S	16.39 W	17.40	250.36	0.28	-0.21	346.68
	3400.00	0.95	23.95	100	3399.57	-4.50	4.51 S	16.14 W	16.76	254.38	0.53	0.28	-327.33
	3500.00	0.44	100.29	100	3499.57	-3.81	3.82 S	15.42 W	15.89	256.07	0.95	-0.51	76.34
	3600.00	0.42	256.36	100	3599.56	-3.97	3.98 S	15.40 W	15.91	255.51	0.84	-0.02	156.07
	3700.00	0.98	257.06	100	3699.56	-4.25	4.26 S	16.59 W	17.13	255.61	0.56	0.56	0.70
	3800.00	1.00	297.93	100	3799.54	-4.03	4.04 S	18.20 W	18.64	257.48	0.69	0.02	40.87
	3900.00	0.43	226.55	100	3899.54	-3.88	3.89 S	19.24 W	19.63	258.57	0.95	-0.57	-71.38
	4000.00	0.39	250.33	100	3999.53	-4.25	4.26 S	19.83 W	20.29	257.87	0.17	-0.04	23.78
	4100.00	0.80	291.29	100	4099.53	-4.11	4.12 S	20.80 W	21.21	258.79	0.57	0.41	40.96
	4200.00	0.99	253.32	100	4199.52	-4.10	4.12 S	22.28 W	22.66	259.53	0.61	0.19	-37.97
	4300.00	0.35	220.21	100	4299.51	-4.58	4.60 S	23.31 W	23.76	258.84	0.72	-0.64	-33.11
	4400.00	0.45	178.00	100	4399.51	-5.21	5.22 S	23.49 W	24.06	257.46	0.30	0.10	-42.21
	4500.00	0.54	305.17	100	4499.51	-5.33	5.35 S	23.86 W	24.45	257.37	0.89	0.09	127.17
	4600.00	0.88	236.43	100	4599.50	-5.48	5.50 S	24.89 W	25.49	257.54	0.85	0.34	-68.74
	4700.00	0.43	276.20	100	4699.49	-5.86	5.88 S	25.90 W	26.56	257.20	0.61	-0.45	39.77
	4800.00	0.46	101.76	100	4799.49	-5.91	5.92 S	25.88 W	26.55	257.11	0.89	0.03	-174.44
	4900.00	0.89	201.04	100	4899.49	-6.71	6.73 S	25.77 W	26.63	255.36	1.07	0.43	99.28
	5000.00	0.48	222.03	100	4999.48	-7.75	7.77 S	26.32 W	27.45	253.56	0.47	-0.41	20.99
	5100.00	0.65	226.57	100	5099.48	-8.45	8.47 S	27.02 W	28.31	252.60	0.18	0.17	4.54
	5200.00	0.79	229.35	100	5199.47	-9.29	9.31 S	27.95 W	29.46	251.58	0.14	0.14	2.78
	5300.00	0.88	208.05	100	5299.46	-10.41	10.43 S	28.84 W	30.67	250.11	0.32	0.09	-21.30
	5400.00	1.33	250.97	100	5399.44	-11.47	11.49 S	30.29 W	32.40	249.23	0.91	0.45	42.92
	5500.00	1.53	221.80	100	5499.41	-12.84	12.86 S	32.28 W	34.75	248.27	0.75	0.20	-29.17
	5600.00	1.98	212.27	100	5599.36	-15.30	15.32 S	34.09 W	37.38	245.80	0.53	0.45	-9.53
	5700.00	1.89	207.12	100	5699.31	-18.22	18.25 S	35.77 W	40.15	242.97	0.20	-0.09	-5.15



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TECHNOLOGY SERVICES

Company: Mewbourne
Well: Owl Draw 27 W2NC Fed Com2H
Location: Eddy Co, NM
Rig: Patterson 250

Job Number: 1610282
Grid Corr.: -0.08
Lat: 32.01
Long: -104.18

Calculation Method: Minimum Curvature
Proposed Azimuth: 359.96
RKB - MSL in feet: 27 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	1.33	217.43	100	5799.27	-20.61	20.64 S	37.22 W	42.56	241.00	0.63	-0.56	10.31
	5900.00	2.08	226.79	100	5899.22	-22.77	22.80 S	39.25 W	45.39	239.85	0.80	0.75	9.36
	6000.00	1.50	244.83	100	5999.17	-24.57	24.60 S	41.76 W	48.47	239.50	0.80	-0.58	18.04
	6100.00	1.22	268.89	100	6099.15	-25.15	25.18 S	44.01 W	50.70	240.23	0.63	-0.28	24.06
	6200.00	1.25	236.45	100	6199.12	-25.77	25.80 S	45.98 W	52.73	240.70	0.69	0.03	-32.44
	6300.00	1.43	226.85	100	6299.10	-27.22	27.26 S	47.80 W	55.03	240.31	0.29	0.18	-9.60
	6400.00	1.85	274.25	100	6399.06	-27.96	27.99 S	50.32 W	57.58	240.92	1.37	0.42	47.40
	6500.00	1.60	268.04	100	6499.01	-27.88	27.92 S	53.33 W	60.19	242.37	0.31	-0.25	-6.21
	6600.00	0.82	348.84	100	6599.00	-27.23	27.27 S	54.86 W	61.26	243.57	1.68	-0.78	80.80
	6700.00	0.86	299.67	100	6698.99	-26.15	26.19 S	55.65 W	61.51	244.80	0.70	0.04	-49.17
	6800.00	0.91	216.59	100	6798.98	-26.42	26.46 S	56.78 W	62.64	245.01	1.17	0.05	-83.08
	6900.00	1.52	241.26	100	6898.96	-27.69	27.73 S	58.41 W	64.66	244.60	0.79	0.61	24.67
	7000.00	1.31	228.19	100	6998.93	-29.09	29.13 S	60.43 W	67.08	244.26	0.38	-0.21	-13.07
	7100.00	1.83	232.37	100	7098.89	-30.83	30.87 S	62.54 W	69.75	243.73	0.53	0.52	4.18
	7200.00	1.53	237.52	100	7198.84	-32.52	32.56 S	64.94 W	72.64	243.37	0.34	-0.30	5.15
	7300.00	0.31	247.60	100	7298.83	-33.34	33.38 S	66.31 W	74.24	243.28	1.23	-1.22	10.08
	7400.00	0.87	165.43	100	7398.83	-34.17	34.22 S	66.37 W	74.67	242.73	0.88	0.56	-82.17
	7500.00	3.07	131.76	100	7498.76	-36.69	36.74 S	64.18 W	73.95	240.21	2.39	2.20	-33.67
	7600.00	4.59	117.19	100	7598.54	-40.31	40.35 S	58.63 W	71.17	235.46	1.79	1.52	-14.57
	7700.00	4.38	113.96	100	7698.23	-43.69	43.73 S	51.58 W	67.62	229.71	0.33	-0.21	-3.23
	7800.00	4.79	117.93	100	7797.91	-47.20	47.24 S	44.40 W	64.83	223.23	0.52	0.41	3.97
	7900.00	4.57	126.02	100	7897.58	-51.51	51.53 S	37.49 W	63.73	216.03	0.70	-0.22	8.09
	8000.00	2.40	104.71	100	7997.39	-54.39	54.41 S	32.24 W	63.24	210.65	2.49	-2.17	-21.31
	8100.00	1.96	151.84	100	8097.33	-56.43	56.45 S	29.41 W	63.65	207.52	1.79	-0.44	47.13
	8200.00	2.69	141.57	100	8197.25	-59.78	59.79 S	27.14 W	65.67	204.41	0.84	0.73	-10.27
	8300.00	1.72	162.37	100	8297.17	-63.05	63.06 S	25.23 W	67.92	201.80	1.24	-0.97	20.80
	8400.00	1.78	170.73	100	8397.13	-66.01	66.03 S	24.52 W	70.43	200.38	0.26	0.06	8.36
	8500.00	1.59	178.05	100	8497.08	-68.93	68.95 S	24.23 W	73.08	199.36	0.29	-0.19	7.32
	8600.00	1.42	155.48	100	8597.05	-71.44	71.46 S	23.66 W	75.28	198.32	0.61	-0.17	-22.57
	8700.00	1.17	140.29	100	8697.02	-73.36	73.37 S	22.50 W	76.74	197.05	0.42	-0.25	-15.19



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Calculation Method: Minimum Curvature
Proposed Azimuth: 359.96
RKB - MSL in feet: 27 Feet
Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclina- tion (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')
	8800.00	1.20	148.85	100	8797.00	-75.04	75.05 S	21.30 W	78.02	195.85	0.18	0.03	8.56
	8900.00	0.66	111.33	100	8896.99	-76.15	76.16 S	20.23 W	78.80	194.87	0.79	-0.54	-37.52
	9000.00	0.21	119.49	100	8996.99	-76.45	76.46 S	19.53 W	78.91	194.33	0.45	-0.45	8.16
	9122.00	0.60	125.59	122	9118.98	-76.93	76.94 S	18.82 W	79.21	193.74	0.32	0.32	5.00