



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

September 8, 2016

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

HOBBS OCD
DEC 06 2016
RECEIVED

Re: Mewbourne Oil
Cabra Nino 11 B3NC State Com 1H
Lea County, New Mexico
API #30-025-42597
Job No. 60314

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	
Andy Askew	1H	0	10536	08/26/16	08/26/16	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



PHOENIX
TECHNOLOGY SERVICES

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

HOBBS OCD
DEC 06 2016
RECEIVED

Company: Mewbourne Oil

Job #: 60314

Well Name: Cabra Nino 11 B3NC State Com 1H

County/State: Lea, NM

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-42597

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 (°)
2016-08-26	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-08-26	10536	2.91	322.21

Projected TD Survey

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

Grid Correction
-0.48

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: 8-26-16

Print Name: Andy Askew

Signature:



Company: Mewbourne Oil
 Well: Cabra Nino 11 B3NC State Com 1H
 Location: Lea Co., NM
 Rig: Patterson 231

Job Number: 60314
 Grid Corr.: -0.48
 Lat: 32.39
 Long: -103.44

Date: 08-26-16
 Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 25
 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	0.14	358.15	100	100.00	0.12	0.12 N	0.00 W	0.12	358.15	0.14	0.14	358.15
	200.00	0.37	59.55	100	200.00	0.41	0.41 N	0.27 E	0.49	33.55	0.33	0.23	-298.60
	300.00	0.47	40.28	100	300.00	0.88	0.88 N	0.81 E	1.20	42.63	0.17	0.10	-19.27
	400.00	0.41	35.59	100	399.99	1.49	1.49 N	1.29 E	1.97	40.86	0.07	-0.06	-4.69
	500.00	0.38	11.23	100	499.99	2.10	2.10 N	1.56 E	2.62	36.55	0.17	-0.03	-24.36
	600.00	0.54	33.79	100	599.99	2.82	2.82 N	1.89 E	3.39	33.77	0.24	0.16	22.56
	700.00	0.42	325.09	100	699.98	3.51	3.51 N	1.94 E	4.01	28.89	0.55	-0.12	291.30
	800.00	0.32	329.51	100	799.98	4.05	4.05 N	1.59 E	4.35	21.38	0.10	-0.10	4.42
	900.00	0.26	346.81	100	899.98	4.52	4.52 N	1.39 E	4.73	17.16	0.11	-0.06	17.30
	1000.00	0.34	273.63	100	999.98	4.76	4.76 N	1.05 E	4.87	12.41	0.36	0.08	-73.18
	1100.00	0.46	308.38	100	1099.98	5.02	5.02 N	0.44 E	5.04	4.96	0.26	0.12	34.75
	1200.00	0.47	301.54	100	1199.97	5.49	5.49 N	0.23 W	5.49	357.61	0.06	0.01	-6.84
	1300.00	0.25	202.61	100	1299.97	5.50	5.50 N	0.66 W	5.54	353.14	0.57	-0.22	-98.93
	1400.00	0.25	13.04	100	1399.97	5.51	5.51 N	0.70 W	5.56	352.80	0.50	0.00	-189.57
	1500.00	0.29	248.37	100	1499.97	5.63	5.63 N	0.88 W	5.70	351.09	0.48	0.04	235.33
	1600.00	0.33	222.10	100	1599.97	5.32	5.32 N	1.31 W	5.48	346.17	0.15	0.04	-26.27
	1700.00	0.60	197.37	100	1699.97	4.61	4.61 N	1.66 W	4.90	340.20	0.33	0.27	-24.73
	1800.00	0.25	176.10	100	1799.96	3.89	3.89 N	1.80 W	4.29	335.17	0.38	-0.35	-21.27
	1900.00	0.47	292.01	100	1899.96	3.83	3.83 N	2.17 W	4.40	330.49	0.62	0.22	115.91
	2000.00	0.39	3.02	100	1999.96	4.32	4.32 N	2.53 W	5.01	329.67	0.50	-0.08	-288.99
	2100.00	0.68	9.86	100	2099.96	5.25	5.25 N	2.41 W	5.77	335.33	0.30	0.29	6.84
	2200.00	0.71	1.12	100	2199.95	6.45	6.45 N	2.30 W	6.85	340.41	0.11	0.03	-8.74
	2300.00	0.45	343.81	100	2299.94	7.45	7.45 N	2.39 W	7.82	342.18	0.31	-0.26	342.69
	2400.00	0.24	279.96	100	2399.94	7.86	7.86 N	2.71 W	8.32	340.98	0.41	-0.21	-63.85
	2500.00	0.67	358.17	100	2499.94	8.48	8.48 N	2.93 W	8.98	340.92	0.66	0.43	78.21
	2600.00	0.36	35.05	100	2599.94	9.32	9.32 N	2.77 W	9.73	343.44	0.44	-0.31	-323.12
	2700.00	0.47	56.06	100	2699.93	9.81	9.81 N	2.25 W	10.07	347.07	0.19	0.11	21.01



Company: Mewbourne Oil
 Well: Cabra Nino 11 B3NC State Com 1H
 Location: Lea Co., NM
 Rig: Patterson 231

Job Number: 60314
 Grid Corr.: -0.48
 Lat: 32.39
 Long: -103.44

Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 25
 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	0.70	13.90	100	2799.93	10.63	10.63 N	1.77 W	10.78	350.57	0.47	0.23	-42.16
	2900.00	0.73	51.59	100	2899.92	11.62	11.62 N	1.12 W	11.67	354.50	0.46	0.03	37.69
	3000.00	0.83	46.39	100	2999.91	12.52	12.52 N	0.10 W	12.52	359.56	0.12	0.10	-5.20
	3100.00	1.33	56.91	100	3099.89	13.65	13.65 N	1.40 E	13.72	5.86	0.54	0.50	10.52
	3200.00	0.94	64.14	100	3199.87	14.64	14.64 N	3.11 E	14.97	12.00	0.41	-0.39	7.23
	3300.00	0.81	81.85	100	3299.86	15.10	15.10 N	4.55 E	15.77	16.77	0.30	-0.13	17.71
	3400.00	1.01	92.64	100	3399.85	15.16	15.16 N	6.13 E	16.35	22.02	0.26	0.20	10.79
	3500.00	1.52	93.52	100	3499.83	15.04	15.04 N	8.33 E	17.19	29.00	0.51	0.51	0.88
	3600.00	1.57	81.06	100	3599.79	15.17	15.17 N	11.01 E	18.74	35.98	0.34	0.05	-12.46
	3700.00	1.92	87.07	100	3699.74	15.47	15.47 N	14.04 E	20.89	42.23	0.39	0.35	6.01
	3800.00	1.80	108.78	100	3799.69	15.05	15.05 N	17.20 E	22.85	48.82	0.71	-0.12	21.71
	3900.00	2.11	104.45	100	3899.63	14.08	14.08 N	20.47 E	24.84	55.47	0.34	0.31	-4.33
	4000.00	1.69	118.19	100	3999.58	12.93	12.93 N	23.55 E	26.86	61.24	0.62	-0.42	13.74
	4100.00	1.60	121.94	100	4099.54	11.49	11.49 N	26.03 E	28.46	66.19	0.14	-0.09	3.75
	4200.00	1.85	120.43	100	4199.49	9.93	9.93 N	28.61 E	30.29	70.85	0.25	0.25	-1.51
	4300.00	2.57	119.84	100	4299.42	8.00	8.00 N	31.95 E	32.93	75.94	0.72	0.72	-0.59
	4400.00	3.86	121.94	100	4399.26	5.10	5.10 N	36.75 E	37.10	82.09	1.30	1.29	2.10
	4500.00	5.98	117.60	100	4498.88	0.91	0.91 N	44.22 E	44.23	88.82	2.15	2.12	-4.34
	4600.00	6.72	116.40	100	4598.27	-4.10	4.10 S	54.08 E	54.23	94.34	0.75	0.74	-1.20
	4700.00	7.43	116.80	100	4697.51	-9.62	9.62 S	65.09 E	65.80	98.41	0.71	0.71	0.40
	4800.00	7.77	118.21	100	4796.63	-15.73	15.73 S	76.82 E	78.41	101.57	0.39	0.34	1.41
	4900.00	8.36	121.30	100	4895.64	-22.70	22.70 S	88.99 E	91.84	104.31	0.73	0.59	3.09
	5000.00	8.50	122.58	100	4994.56	-30.46	30.46 S	101.43 E	105.90	106.72	0.23	0.14	1.28
	5100.00	8.63	123.31	100	5093.44	-38.56	38.56 S	113.92 E	120.27	108.70	0.17	0.13	0.73
	5200.00	8.81	124.21	100	5192.29	-46.99	46.99 S	126.53 E	134.97	110.37	0.23	0.18	0.90
	5300.00	8.48	126.32	100	5291.15	-55.66	55.66 S	138.80 E	149.54	111.85	0.46	-0.33	2.11
	5400.00	8.33	130.25	100	5390.08	-64.71	64.71 S	150.27 E	163.61	113.30	0.59	-0.15	3.93
	5500.00	8.65	131.39	100	5488.98	-74.36	74.36 S	161.44 E	177.74	114.73	0.36	0.32	1.14
	5600.00	8.78	133.85	100	5587.83	-84.62	84.62 S	172.59 E	192.21	116.12	0.39	0.13	2.46
	5700.00	8.92	136.78	100	5686.64	-95.56	95.56 S	183.40 E	206.80	117.52	0.47	0.14	2.93



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 Location: Lea Co., NM
 Rig: Patterson 231

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Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
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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	10.27	144.00	100	5785.24	-108.42	108.42 S	193.95 E	222.20	119.21	1.81	1.35	7.22
	5900.00	10.38	144.69	100	5883.62	-122.98	122.98 S	204.40 E	238.54	121.03	0.17	0.11	0.69
	6000.00	10.00	146.74	100	5982.04	-137.59	137.59 S	214.36 E	254.72	122.69	0.53	-0.38	2.05
	6100.00	7.57	140.96	100	6080.87	-149.97	149.97 S	223.28 E	268.97	123.89	2.58	-2.43	-5.78
	6200.00	6.16	133.10	100	6180.15	-158.75	158.75 S	231.34 E	280.58	124.46	1.69	-1.41	-7.86
	6300.00	2.44	123.91	100	6279.85	-163.61	163.61 S	237.03 E	288.01	124.62	3.77	-3.72	-9.19
	6400.00	1.10	116.50	100	6379.80	-165.23	165.23 S	239.66 E	291.09	124.58	1.36	-1.34	-7.41
	6500.00	0.98	116.75	100	6479.78	-166.04	166.04 S	241.28 E	292.89	124.53	0.12	-0.12	0.25
	6600.00	1.30	101.40	100	6579.76	-166.65	166.65 S	243.15 E	294.78	124.43	0.44	0.32	-15.35
	6700.00	1.27	114.14	100	6679.74	-167.32	167.32 S	245.28 E	296.92	124.30	0.29	-0.03	12.74
	6800.00	0.89	103.92	100	6779.72	-167.97	167.97 S	247.04 E	298.73	124.21	0.42	-0.38	-10.22
	6900.00	0.96	71.07	100	6879.71	-167.88	167.88 S	248.59 E	299.97	124.03	0.53	0.07	-32.85
	7000.00	0.83	100.49	100	6979.70	-167.74	167.74 S	250.09 E	301.14	123.85	0.47	-0.13	29.42
	7100.00	1.03	92.73	100	7079.68	-167.91	167.91 S	251.70 E	302.57	123.71	0.24	0.20	-7.76
	7200.00	0.76	108.81	100	7179.67	-168.17	168.17 S	253.23 E	303.98	123.59	0.37	-0.27	16.08
	7300.00	0.94	95.15	100	7279.66	-168.46	168.46 S	254.67 E	305.35	123.48	0.27	0.18	-13.66
	7400.00	0.92	106.74	100	7379.65	-168.76	168.76 S	256.26 E	306.84	123.37	0.19	-0.02	11.59
	7500.00	1.85	122.79	100	7479.62	-169.87	169.87 S	258.39 E	309.22	123.32	1.00	0.93	16.05
	7600.00	1.60	141.90	100	7579.57	-171.84	171.84 S	260.60 E	312.16	123.40	0.62	-0.25	19.11
	7700.00	1.71	149.20	100	7679.53	-174.22	174.22 S	262.23 E	314.83	123.60	0.24	0.11	7.30
	7800.00	1.45	191.52	100	7779.50	-176.74	176.74 S	262.74 E	316.66	123.93	1.17	-0.26	42.32
	7900.00	0.87	226.11	100	7879.48	-178.51	178.51 S	261.94 E	316.98	124.27	0.88	-0.58	34.59
	8000.00	1.02	265.41	100	7979.46	-179.11	179.11 S	260.51 E	316.14	124.51	0.65	0.15	39.30
	8100.00	1.42	276.53	100	8079.44	-179.04	179.04 S	258.39 E	314.35	124.72	0.46	0.40	11.12
	8200.00	1.34	295.83	100	8179.41	-178.39	178.39 S	256.10 E	312.11	124.86	0.47	-0.08	19.30
	8300.00	1.59	297.49	100	8279.38	-177.24	177.24 S	253.82 E	309.58	124.93	0.25	0.25	1.66
	8400.00	1.48	300.86	100	8379.34	-175.93	175.93 S	251.48 E	306.91	124.98	0.14	-0.11	3.37
	8500.00	1.41	300.58	100	8479.31	-174.65	174.65 S	249.31 E	304.40	125.01	0.07	-0.07	-0.28
	8600.00	2.52	288.54	100	8579.25	-173.32	173.32 S	246.17 E	301.07	125.15	1.18	1.11	-12.04
	8700.00	3.04	280.64	100	8679.14	-172.13	172.13 S	241.48 E	296.55	125.48	0.64	0.52	-7.90



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Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 25
 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	3.31	269.18	100	8778.98	-171.68	171.68 S	235.99 E	291.83	126.04	0.69	0.27	-11.46
	8900.00	4.58	246.39	100	8878.75	-173.32	173.32 S	229.44 E	287.55	127.07	1.99	1.27	-22.79
	9000.00	5.58	248.23	100	8978.36	-176.73	176.73 S	221.27 E	283.18	128.61	1.01	1.00	1.84
	9100.00	6.28	251.31	100	9077.82	-180.28	180.28 S	211.57 E	277.97	130.43	0.77	0.70	3.08
	9200.00	7.66	256.71	100	9177.08	-183.57	183.57 S	199.90 E	271.40	132.56	1.53	1.38	5.40
	9300.00	10.01	257.00	100	9275.89	-187.06	187.06 S	184.95 E	263.05	135.32	2.35	2.35	0.29
	9400.00	11.30	252.89	100	9374.16	-191.89	191.89 S	167.11 E	254.46	138.95	1.50	1.29	-4.11
	9500.00	10.34	240.64	100	9472.40	-199.18	199.18 S	149.93 E	249.30	143.03	2.49	-0.96	-12.25
	9600.00	9.13	232.23	100	9570.96	-208.44	208.44 S	135.83 E	248.79	146.91	1.86	-1.21	-8.41
	9700.00	7.44	237.43	100	9669.91	-216.78	216.78 S	124.10 E	249.79	150.21	1.85	-1.69	5.20
	9800.00	5.18	259.00	100	9769.31	-221.13	221.13 S	114.21 E	248.88	152.68	3.24	-2.26	21.57
	9900.00	3.00	261.66	100	9869.05	-222.37	222.37 S	107.19 E	246.86	154.26	2.19	-2.18	2.66
	10000.00	2.98	279.86	100	9968.92	-222.31	222.31 S	102.04 E	244.61	155.34	0.95	-0.02	18.20
	10100.00	3.50	276.05	100	10068.76	-221.54	221.54 S	96.45 E	241.62	156.47	0.56	0.52	-3.81
	10200.00	3.33	286.23	100	10168.58	-220.41	220.41 S	90.62 E	238.31	157.65	0.63	-0.17	10.18
	10300.00	3.18	299.45	100	10268.42	-218.23	218.23 S	85.42 E	234.35	158.62	0.76	-0.15	13.22
	10400.00	2.63	300.46	100	10368.29	-215.70	215.70 S	81.02 E	230.42	159.41	0.55	-0.55	1.01
	10500.00	2.80	316.75	100	10468.18	-212.76	212.76 S	77.37 E	226.39	160.02	0.79	0.17	16.29
	10536.25	2.91	322.21	36	10504.39	-211.39	211.39 S	76.20 E	224.71	160.18	0.81	0.30	15.06