PATRIOT DRILLING, LLC

OPERATOR: COG Operating, LLC
WELL/LEASE: Scooter Fed Com 2H
COUNTY: Lea Co., New Mexico
Sec. 23, T 18S, R 33E

STATE OF NEW MEXICO
DEVIATION REPORT

Depth	Deviation	Depth	Deviation
550	4 1/2	5,345	2 1/2
986	3/4	5,935	1 1/4
1,302	1/2	6,438	1 1/2
1,831	1/2	6,906	3/4
2,305	1/2	7,392	2
2,776	1	7,711	2 1/2
3,512	1 1/2	8,143	1
3,986	1 1/4	8,521	1 3/4
4,395	1	8,973	1
4,866	3/4		

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 21st day of October 2015 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2019

LORI TERESA ROWAN
Notary Public, State of Texas
My Commission Expires
February 01, 2019

Lori T. Rowan
Notary Public for Ector Co., Texas

VES SURVEY INTERNATIONAL

October 14, 2015

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

Attn: Kanicia Castillo

RE: **Scooter Federal Com No 002H**

Please find enclosed a copy of the survey from 0' to 8939' ran on the above referenced well.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
§
COUNTY OF NUECES §

This instrument was acknowledged before me on the 14 day of October, A.D., 2015, by Keith Havelka.

Jennifer Ann Byerly
Notary Public, State of Texas

JENNIFER ANN BYERLY
Notary Public, State of Texas
My Commission Expires
August 16, 2017

VES Survey International
P.O. Box 261021, Corpus Christi, Texas 78426
T (361) 767-0602 F (361) 767-0612
www.vessurvey.com

Company: Concho
Lease/Well: Scooter Federal Com No/002H

Rig Name: Patriot 6
State/County: New Mexico/Lea
VS-Azi: 0.00 Degrees
Latitude: 32.73975, Longitude: -103.63648
Grid North = True North -0.38 degs (NAD 27)
Grid Correction Applied = -0.38 degs

Depth Reference : RKB = 18 feet

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 10/14/2015 / 08:14

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Adam Askew
Scooter Federal Com No 002H / API 30-025-42788

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.50	94.49	100.00	-0.03	0.44	-0.03	0.44	94.49	0.50
200.00	1.40	94.40	199.98	-0.16	2.09	-0.16	2.10	94.44	0.90
300.00	2.51	101.06	299.92	-0.68	5.46	-0.68	5.50	97.06	1.13
400.00	4.99	100.49	399.70	-1.89	11.88	-1.89	12.03	99.03	2.48
500.00	5.00	108.00	499.32	-4.03	20.30	-4.03	20.70	101.22	0.65
600.00	4.11	106.29	599.01	-6.38	27.89	-6.38	28.61	102.88	0.91
700.00	3.80	117.14	698.77	-8.90	34.27	-8.90	35.41	104.55	0.81
800.00	1.60	125.22	798.65	-11.21	38.36	-11.21	39.97	106.29	2.23
900.00	0.61	132.71	898.63	-12.38	39.89	-12.38	41.77	107.24	0.99
1000.00	0.42	179.97	998.63	-13.11	40.29	-13.11	42.37	108.02	0.45
1100.00	0.39	207.67	1098.63	-13.78	40.13	-13.78	42.43	108.95	0.20
1200.00	0.46	191.96	1198.62	-14.48	39.89	-14.48	42.43	109.95	0.13
1300.00	0.15	126.80	1298.62	-14.95	39.91	-14.95	42.62	110.53	0.42
1400.00	0.23	248.99	1398.62	-15.10	39.83	-15.10	42.59	110.76	0.33
1500.00	0.15	305.08	1498.62	-15.09	39.53	-15.09	42.32	110.89	0.19
1600.00	0.12	284.11	1598.62	-14.99	39.33	-14.99	42.09	110.86	0.06

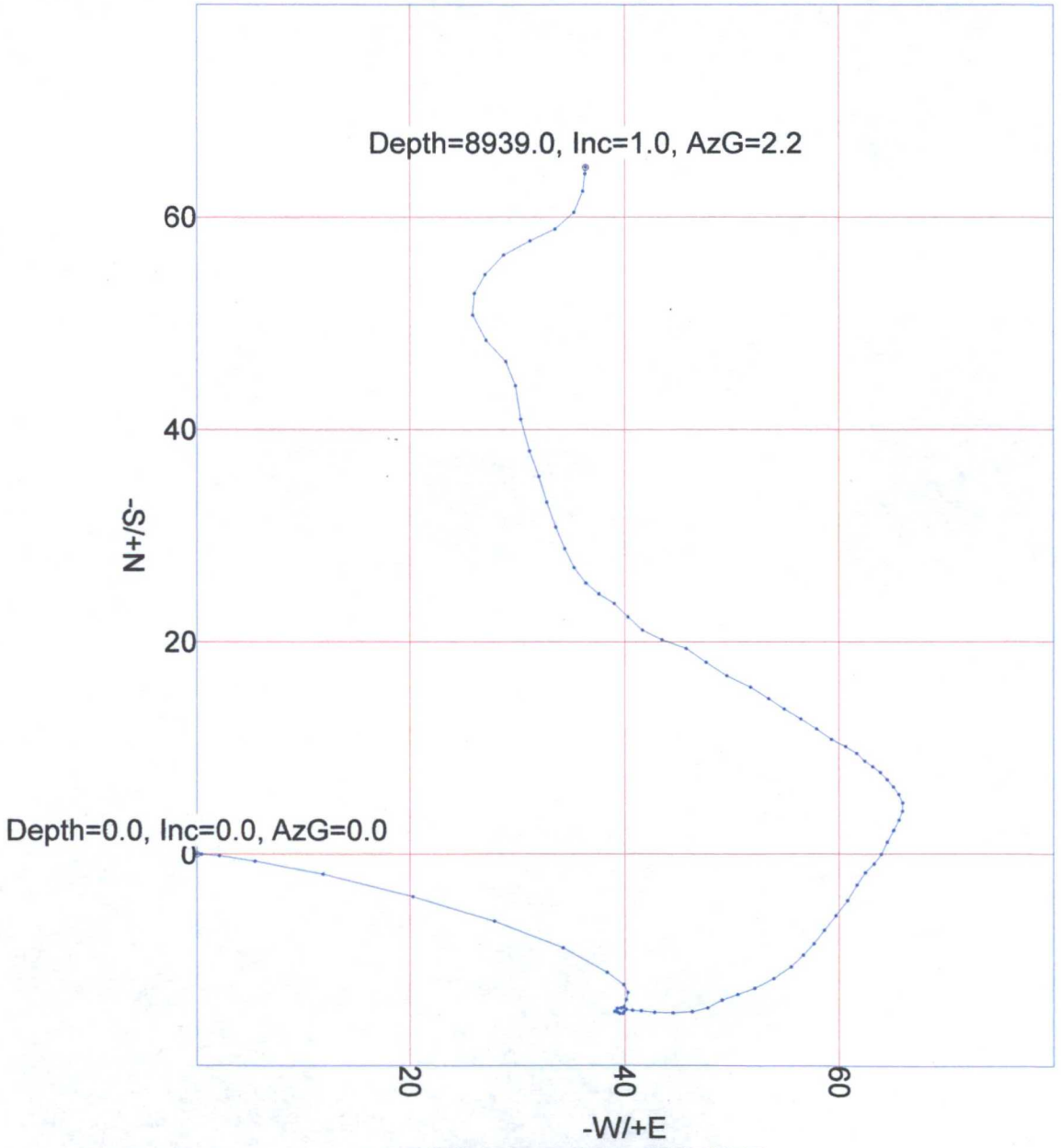
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	0.15	310.40	1698.62	-14.88	39.13	-14.88	41.86	110.82	0.07
1800.00	0.13	173.95	1798.62	-14.91	39.05	-14.91	41.79	110.90	0.25
1900.00	0.18	25.16	1898.62	-14.88	39.12	-14.88	41.86	110.82	0.29
2000.00	0.18	40.53	1998.62	-14.62	39.29	-14.62	41.92	110.41	0.05
2100.00	0.30	106.32	2098.62	-14.58	39.64	-14.58	42.23	110.19	0.28
2200.00	0.30	104.75	2198.62	-14.72	40.14	-14.72	42.76	110.13	0.01
2300.00	0.35	91.47	2298.62	-14.79	40.71	-14.79	43.31	109.97	0.09
2400.00	0.60	93.22	2398.61	-14.83	41.54	-14.83	44.11	109.65	0.25
2500.00	0.84	100.90	2498.61	-15.00	42.79	-15.00	45.34	109.32	0.26
2600.00	1.14	83.38	2598.59	-15.02	44.49	-15.02	46.96	108.66	0.42
2700.00	0.93	91.48	2698.57	-14.93	46.29	-14.93	48.64	107.87	0.25
2800.00	0.86	57.65	2798.56	-14.55	47.74	-14.55	49.91	106.95	0.53
2900.00	0.89	64.71	2898.55	-13.82	49.07	-13.82	50.98	105.73	0.11
3000.00	0.92	75.57	2998.54	-13.29	50.54	-13.29	52.26	104.73	0.17
3100.00	1.01	64.01	3098.53	-12.70	52.12	-12.70	53.64	103.70	0.22
3200.00	1.27	60.93	3198.51	-11.78	53.88	-11.78	55.15	102.33	0.26
3300.00	1.00	48.60	3298.49	-10.66	55.50	-10.66	56.52	100.87	0.36
3400.00	0.82	43.69	3398.47	-9.56	56.65	-9.56	57.46	99.58	0.19
3500.00	0.86	41.71	3498.46	-8.48	57.65	-8.48	58.27	98.37	0.05
3600.00	0.97	33.79	3598.45	-7.22	58.62	-7.22	59.06	97.02	0.16
3700.00	1.05	40.93	3698.43	-5.83	59.69	-5.83	59.97	95.58	0.15
3800.00	1.03	34.96	3798.42	-4.40	60.80	-4.40	60.96	94.14	0.11
3900.00	0.94	26.69	3898.40	-2.94	61.68	-2.94	61.75	92.73	0.17
4000.00	0.68	43.48	3998.39	-1.77	62.46	-1.77	62.49	91.63	0.34
4100.00	0.63	46.30	4098.39	-0.96	63.27	-0.96	63.28	90.87	0.06
4200.00	0.69	26.86	4198.38	-0.04	63.94	-0.04	63.94	90.03	0.23
4300.00	0.76	25.70	4298.37	1.09	64.50	1.09	64.51	89.03	0.07
4400.00	0.68	30.42	4398.36	2.20	65.09	2.20	65.13	88.06	0.10
4500.00	0.58	22.82	4498.36	3.18	65.59	3.18	65.66	87.23	0.13
4600.00	0.46	18.52	4598.35	4.02	65.91	4.02	66.03	86.51	0.13
4700.00	0.46	345.21	4698.35	4.79	65.93	4.79	66.11	85.85	0.26
4800.00	0.57	327.48	4798.35	5.60	65.56	5.60	65.80	85.12	0.19
4900.00	0.44	324.56	4898.34	6.33	65.07	6.33	65.38	84.45	0.13
5000.00	0.57	316.06	4998.34	6.99	64.51	6.99	64.89	83.81	0.15
5100.00	0.52	317.12	5098.33	7.68	63.86	7.68	64.32	83.14	0.05
5200.00	0.52	297.14	5198.33	8.22	63.15	8.22	63.68	82.58	0.18
5300.00	0.54	315.76	5298.33	8.76	62.42	8.76	63.03	82.01	0.17
5400.00	0.65	312.31	5398.32	9.49	61.67	9.49	62.39	81.25	0.11
5500.00	0.78	292.97	5498.31	10.13	60.62	10.13	61.46	80.51	0.27

VES Survey Date: 10/8/2015

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	0.93	300.12	5598.30	10.81	59.29	10.81	60.27	79.67	0.18
5700.00	1.03	310.66	5698.29	11.80	57.91	11.80	59.10	78.48	0.21
5800.00	1.01	295.09	5798.27	12.76	56.43	12.76	57.85	77.26	0.28
5900.00	1.07	306.67	5898.26	13.69	54.88	13.69	56.56	75.99	0.22
6000.00	0.94	299.92	5998.24	14.66	53.43	14.66	55.40	74.66	0.18
6100.00	1.36	304.90	6098.22	15.74	51.74	15.74	54.08	73.08	0.44
6200.00	1.49	287.40	6198.19	16.82	49.52	16.82	52.30	71.24	0.45
6300.00	1.26	322.57	6298.16	18.08	47.61	18.08	50.93	69.20	0.86
6400.00	1.45	289.55	6398.14	19.38	45.74	19.38	49.68	67.04	0.79
6500.00	1.29	291.18	6498.11	20.21	43.50	20.21	47.96	65.08	0.17
6600.00	1.06	301.78	6598.09	21.11	41.66	21.11	46.70	63.13	0.31
6700.00	1.09	323.28	6698.07	22.36	40.30	22.36	46.09	60.98	0.40
6800.00	0.99	305.71	6798.05	23.62	39.04	23.62	45.63	58.83	0.33
6900.00	0.97	299.15	6898.04	24.53	37.60	24.53	44.90	56.88	0.11
7000.00	0.86	322.22	6998.03	25.53	36.41	25.53	44.47	54.96	0.38
7100.00	1.21	323.73	7098.01	26.98	35.32	26.98	44.45	52.63	0.35
7200.00	1.11	345.68	7197.99	28.77	34.46	28.77	44.89	50.14	0.45
7300.00	1.43	331.42	7297.96	30.80	33.62	30.80	45.60	47.51	0.45
7400.00	1.46	349.03	7397.93	33.15	32.78	33.15	46.62	44.68	0.44
7500.00	1.46	337.91	7497.90	35.58	32.06	35.58	47.90	42.02	0.28
7600.00	1.45	342.17	7597.87	37.97	31.19	37.97	49.14	39.40	0.11
7700.00	2.12	346.68	7697.82	40.98	30.38	40.98	51.01	36.55	0.69
7800.00	1.54	356.54	7797.77	44.12	29.87	44.12	53.28	34.10	0.66
7900.00	1.42	318.70	7897.74	46.40	28.97	46.40	54.70	31.98	0.97
8000.00	1.70	316.36	7997.70	48.40	27.13	48.40	55.49	29.28	0.29
8100.00	1.52	350.06	8097.66	50.78	25.88	50.78	57.00	27.01	0.95
8200.00	0.93	29.00	8197.64	52.80	26.05	52.80	58.87	26.26	0.99
8300.00	1.42	29.69	8297.62	54.58	27.05	54.58	60.92	26.36	0.49
8400.00	1.54	55.99	8397.59	56.41	28.78	56.41	63.33	27.03	0.68
8500.00	1.69	66.81	8497.55	57.74	31.25	57.74	65.65	28.42	0.34
8600.00	1.28	60.52	8597.51	58.87	33.57	58.87	67.77	29.69	0.44
8700.00	1.44	37.50	8697.49	60.42	35.31	60.42	69.98	30.30	0.57
8800.00	1.16	3.25	8797.46	62.43	36.13	62.43	72.13	30.06	0.81
8900.00	0.75	12.54	8897.45	64.08	36.33	64.08	73.66	29.55	0.43
8939.00	1.05	2.24	8936.44	64.68	36.40	64.68	74.22	29.37	0.86

VES Survey Date: 10/8/2015

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Adam Askew
Scooter Federal Com No 002H / API 30-025-42788



VES Survey Date: 10/8/2015

VES SURVEY INTERNATIONAL

I Adam Askew certify that I am employed by Vaughn Energy Services. That I did on the day(s) of 10/08/15 through 10/08/15 conduct or supervise the taking of a HA Gyro survey from a depth of 0 feet to a depth of 8938 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho for the Scooter Fed Com Well # 2H API # 30-025-42788 in Lea County / Parish New Mexico ; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services

Adam Askew
Service Technician
Vaughn Energy Services

CONCHO

COG Operating LLC

Lea County, NM (NAD27 NME)
Scooter Federal Com
#2H

OH

Design: OH

Survey Report - Geographic

20 October, 2015

Project	Lea County, NM (NAD27 NME)		
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	Scooter Federal Com				
Site Position:		Northing:	633,537.40 usft	Latitude:	32° 44' 23.107 N
From:	Map	Easting:	714,269.40 usft	Longitude:	103° 38' 11.344 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	#2H						
Well Position	+N/-S	0.0 usft	Northing:	633,537.40 usft	Latitude:	32° 44' 23.107 N
	+E/-W	0.0 usft	Easting:	714,269.40 usft	Longitude:	103° 38' 11.344 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,898.4 usft

Wellbore	OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/25/2015	7.21	60.55	48,413

Design	OH				
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	178.53

Survey Program	Date 10/20/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,939.0	GYRO (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
8,995.0	14,139.0	MWD (OH)	MWD	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	633,537.40	714,269.40	32° 44' 23.107 N	103° 38' 11.344 W
100.0	0.50	94.49	100.0	0.0	0.4	633,537.37	714,269.83	32° 44' 23.106 N	103° 38' 11.339 W
200.0	1.40	94.40	200.0	-0.2	2.1	633,537.24	714,271.48	32° 44' 23.105 N	103° 38' 11.319 W
300.0	2.51	101.06	299.9	-0.7	5.5	633,536.73	714,274.85	32° 44' 23.100 N	103° 38' 11.280 W
400.0	4.99	100.49	399.7	-1.9	11.9	633,535.52	714,281.28	32° 44' 23.087 N	103° 38' 11.205 W
500.0	5.00	108.00	499.3	-4.0	20.3	633,533.38	714,289.70	32° 44' 23.066 N	103° 38' 11.107 W
600.0	4.11	106.29	599.0	-6.4	27.9	633,531.03	714,297.28	32° 44' 23.042 N	103° 38' 11.018 W
700.0	3.80	117.14	698.8	-8.9	34.3	633,528.51	714,303.67	32° 44' 23.017 N	103° 38' 10.943 W
800.0	1.60	125.22	798.7	-11.2	38.4	633,526.19	714,307.76	32° 44' 22.993 N	103° 38' 10.896 W
900.0	0.61	132.71	898.6	-12.4	39.9	633,525.03	714,309.29	32° 44' 22.982 N	103° 38' 10.878 W
1,000.0	0.42	179.97	998.6	-13.1	40.3	633,524.30	714,309.68	32° 44' 22.975 N	103° 38' 10.873 W
1,100.0	0.39	207.67	1,098.6	-13.8	40.1	633,523.63	714,309.53	32° 44' 22.968 N	103° 38' 10.875 W
1,200.0	0.46	191.96	1,198.6	-14.5	39.9	633,522.94	714,309.29	32° 44' 22.961 N	103° 38' 10.878 W
1,300.0	0.15	126.80	1,298.6	-14.9	39.9	633,522.47	714,309.31	32° 44' 22.956 N	103° 38' 10.878 W
1,400.0	0.23	248.99	1,398.6	-15.1	39.8	633,522.31	714,309.22	32° 44' 22.955 N	103° 38' 10.879 W
1,500.0	0.15	305.08	1,498.6	-15.1	39.5	633,522.32	714,308.93	32° 44' 22.955 N	103° 38' 10.882 W
1,600.0	0.12	284.11	1,598.6	-15.0	39.3	633,522.42	714,308.72	32° 44' 22.956 N	103° 38' 10.885 W
1,700.0	0.15	310.40	1,698.6	-14.9	39.1	633,522.53	714,308.52	32° 44' 22.957 N	103° 38' 10.887 W
1,800.0	0.13	173.95	1,798.6	-14.9	39.0	633,522.50	714,308.43	32° 44' 22.957 N	103° 38' 10.888 W
1,900.0	0.18	25.16	1,898.6	-14.9	39.1	633,522.53	714,308.51	32° 44' 22.957 N	103° 38' 10.887 W
2,000.0	0.18	40.53	1,998.6	-14.6	39.3	633,522.79	714,308.68	32° 44' 22.960 N	103° 38' 10.885 W
2,100.0	0.30	106.32	2,098.6	-14.6	39.6	633,522.84	714,309.03	32° 44' 22.960 N	103° 38' 10.881 W
2,200.0	0.30	104.75	2,198.6	-14.7	40.1	633,522.70	714,309.54	32° 44' 22.959 N	103° 38' 10.875 W
2,300.0	0.35	91.47	2,298.6	-14.8	40.7	633,522.62	714,310.10	32° 44' 22.958 N	103° 38' 10.869 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,400.0	0.60	93.22	2,398.6	-14.8	41.5	633,522.59	714,310.92	32° 44' 22.958 N	103° 38' 10.859 W
2,500.0	0.84	100.90	2,498.6	-15.0	42.8	633,522.42	714,312.17	32° 44' 22.956 N	103° 38' 10.844 W
2,600.0	1.14	83.38	2,598.6	-15.0	44.5	633,522.39	714,313.87	32° 44' 22.955 N	103° 38' 10.824 W
2,700.0	0.93	91.48	2,698.6	-14.9	46.3	633,522.49	714,315.67	32° 44' 22.956 N	103° 38' 10.803 W
2,800.0	0.86	57.65	2,798.6	-14.5	47.7	633,522.87	714,317.12	32° 44' 22.960 N	103° 38' 10.786 W
2,900.0	0.89	64.71	2,898.6	-13.8	49.1	633,523.60	714,318.46	32° 44' 22.967 N	103° 38' 10.771 W
3,000.0	0.92	75.57	2,998.5	-13.3	50.5	633,524.13	714,319.94	32° 44' 22.972 N	103° 38' 10.753 W
3,100.0	1.01	64.01	3,098.5	-12.7	52.1	633,524.72	714,321.51	32° 44' 22.978 N	103° 38' 10.735 W
3,200.0	1.27	60.93	3,198.5	-11.8	53.9	633,525.64	714,323.27	32° 44' 22.987 N	103° 38' 10.714 W
3,300.0	1.00	48.60	3,298.5	-10.6	55.5	633,526.76	714,324.89	32° 44' 22.998 N	103° 38' 10.695 W
3,400.0	0.82	43.69	3,398.5	-9.5	56.6	633,527.85	714,326.04	32° 44' 23.009 N	103° 38' 10.682 W
3,500.0	0.86	41.71	3,498.5	-8.5	57.6	633,528.93	714,327.03	32° 44' 23.019 N	103° 38' 10.670 W
3,600.0	0.97	33.79	3,598.4	-7.2	58.6	633,530.20	714,328.00	32° 44' 23.032 N	103° 38' 10.658 W
3,700.0	1.05	40.93	3,698.4	-5.8	59.7	633,531.59	714,329.07	32° 44' 23.045 N	103° 38' 10.646 W
3,800.0	1.03	34.96	3,798.4	-4.4	60.8	633,533.02	714,330.19	32° 44' 23.060 N	103° 38' 10.633 W
3,900.0	0.94	26.69	3,898.4	-2.9	61.7	633,534.49	714,331.07	32° 44' 23.074 N	103° 38' 10.622 W
4,000.0	0.68	43.48	3,998.4	-1.8	62.5	633,535.65	714,331.85	32° 44' 23.085 N	103° 38' 10.613 W
4,100.0	0.63	46.30	4,098.4	-0.9	63.3	633,536.46	714,332.65	32° 44' 23.093 N	103° 38' 10.603 W
4,200.0	0.69	26.86	4,198.4	0.0	63.9	633,537.38	714,333.32	32° 44' 23.102 N	103° 38' 10.596 W
4,300.0	0.76	25.70	4,298.4	1.1	64.5	633,538.52	714,333.88	32° 44' 23.114 N	103° 38' 10.589 W
4,400.0	0.68	30.42	4,398.4	2.2	65.1	633,539.62	714,334.47	32° 44' 23.125 N	103° 38' 10.582 W
4,500.0	0.58	22.82	4,498.4	3.2	65.6	633,540.60	714,334.97	32° 44' 23.134 N	103° 38' 10.576 W
4,600.0	0.46	18.52	4,598.4	4.0	65.9	633,541.45	714,335.29	32° 44' 23.143 N	103° 38' 10.572 W
4,700.0	0.46	345.21	4,698.4	4.8	65.9	633,542.22	714,335.32	32° 44' 23.150 N	103° 38' 10.572 W
4,800.0	0.57	327.48	4,798.3	5.6	65.6	633,543.03	714,334.95	32° 44' 23.158 N	103° 38' 10.576 W
4,900.0	0.44	324.56	4,898.3	6.4	65.1	633,543.76	714,334.46	32° 44' 23.165 N	103° 38' 10.582 W
5,000.0	0.57	316.06	4,998.3	7.0	64.5	633,544.43	714,333.89	32° 44' 23.172 N	103° 38' 10.588 W
5,100.0	0.52	317.12	5,098.3	7.7	63.8	633,545.12	714,333.23	32° 44' 23.179 N	103° 38' 10.596 W
5,200.0	0.52	297.14	5,198.3	8.3	63.1	633,545.66	714,332.52	32° 44' 23.184 N	103° 38' 10.604 W
5,300.0	0.54	315.76	5,298.3	8.8	62.4	633,546.20	714,331.79	32° 44' 23.190 N	103° 38' 10.613 W
5,400.0	0.65	312.31	5,398.3	9.5	61.6	633,546.92	714,331.04	32° 44' 23.197 N	103° 38' 10.621 W
5,500.0	0.78	292.97	5,498.3	10.2	60.6	633,547.57	714,330.00	32° 44' 23.204 N	103° 38' 10.634 W
5,600.0	0.93	300.12	5,598.3	10.8	59.3	633,548.24	714,328.67	32° 44' 23.210 N	103° 38' 10.649 W
5,700.0	1.03	310.66	5,698.3	11.8	57.9	633,549.24	714,327.28	32° 44' 23.220 N	103° 38' 10.665 W
5,800.0	1.01	295.09	5,798.3	12.8	56.4	633,550.20	714,325.80	32° 44' 23.230 N	103° 38' 10.683 W
5,900.0	1.07	306.67	5,898.3	13.7	54.9	633,551.13	714,324.26	32° 44' 23.239 N	103° 38' 10.701 W
6,000.0	0.94	299.92	5,998.2	14.7	53.4	633,552.09	714,322.80	32° 44' 23.249 N	103° 38' 10.718 W
6,100.0	1.36	304.90	6,098.2	15.8	51.7	633,553.18	714,321.11	32° 44' 23.260 N	103° 38' 10.737 W
6,200.0	1.49	287.40	6,198.2	16.8	49.5	633,554.25	714,318.90	32° 44' 23.270 N	103° 38' 10.763 W
6,300.0	1.26	322.57	6,298.2	18.1	47.6	633,555.51	714,316.99	32° 44' 23.283 N	103° 38' 10.785 W
6,400.0	1.45	289.55	6,398.1	19.4	45.7	633,556.81	714,315.13	32° 44' 23.296 N	103° 38' 10.807 W
6,500.0	1.29	291.18	6,498.1	20.2	43.5	633,557.64	714,312.89	32° 44' 23.304 N	103° 38' 10.833 W
6,600.0	1.06	301.78	6,598.1	21.1	41.7	633,558.53	714,311.05	32° 44' 23.313 N	103° 38' 10.855 W
6,700.0	1.09	323.28	6,698.1	22.4	40.3	633,559.78	714,309.70	32° 44' 23.326 N	103° 38' 10.870 W
6,800.0	0.99	305.71	6,798.1	23.6	39.0	633,561.05	714,308.43	32° 44' 23.338 N	103° 38' 10.885 W
6,900.0	0.97	299.15	6,898.0	24.6	37.6	633,561.97	714,306.98	32° 44' 23.347 N	103° 38' 10.902 W
7,000.0	0.86	322.22	6,998.0	25.6	36.4	633,562.97	714,305.79	32° 44' 23.357 N	103° 38' 10.916 W
7,100.0	1.21	323.73	7,098.0	27.0	35.3	633,564.42	714,304.70	32° 44' 23.372 N	103° 38' 10.929 W
7,200.0	1.11	345.68	7,198.0	28.8	34.4	633,566.21	714,303.84	32° 44' 23.390 N	103° 38' 10.938 W
7,300.0	1.43	331.42	7,298.0	30.8	33.6	633,568.24	714,303.00	32° 44' 23.410 N	103° 38' 10.948 W
7,400.0	1.46	349.03	7,397.9	33.2	32.8	633,570.59	714,302.16	32° 44' 23.433 N	103° 38' 10.958 W
7,500.0	1.46	337.91	7,497.9	35.6	32.0	633,573.02	714,301.44	32° 44' 23.457 N	103° 38' 10.966 W
7,600.0	1.45	342.17	7,597.9	38.0	31.2	633,575.40	714,300.57	32° 44' 23.481 N	103° 38' 10.976 W
7,700.0	2.12	346.68	7,697.8	41.0	30.4	633,578.41	714,299.76	32° 44' 23.511 N	103° 38' 10.985 W
7,800.0	1.54	356.54	7,797.8	44.1	29.9	633,581.55	714,299.25	32° 44' 23.542 N	103° 38' 10.991 W
7,900.0	1.42	318.70	7,897.7	46.4	29.0	633,583.82	714,298.35	32° 44' 23.564 N	103° 38' 11.001 W
8,000.0	1.70	316.36	7,997.7	48.4	27.1	633,585.82	714,296.51	32° 44' 23.584 N	103° 38' 11.023 W
8,100.0	1.52	350.06	8,097.7	50.8	25.9	633,588.20	714,295.26	32° 44' 23.608 N	103° 38' 11.037 W
8,200.0	0.93	29.00	8,197.6	52.8	26.0	633,590.22	714,295.42	32° 44' 23.628 N	103° 38' 11.035 W
8,300.0	1.42	29.69	8,297.6	54.6	27.0	633,592.01	714,296.43	32° 44' 23.645 N	103° 38' 11.023 W
8,400.0	1.54	55.99	8,397.6	56.4	28.8	633,593.83	714,298.16	32° 44' 23.663 N	103° 38' 11.003 W
8,500.0	1.69	66.81	8,497.5	57.8	31.2	633,595.17	714,300.63	32° 44' 23.676 N	103° 38' 10.974 W
8,600.0	1.28	60.52	8,597.5	58.9	33.6	633,596.30	714,302.96	32° 44' 23.687 N	103° 38' 10.946 W
8,700.0	1.44	37.50	8,697.5	60.4	35.3	633,597.84	714,304.69	32° 44' 23.703 N	103° 38' 10.926 W
8,800.0	1.16	3.25	8,797.5	62.4	36.1	633,599.85	714,305.52	32° 44' 23.722 N	103° 38' 10.916 W
8,900.0	0.75	12.54	8,897.4	64.1	36.3	633,601.50	714,305.71	32° 44' 23.739 N	103° 38' 10.914 W
8,939.0	1.05	2.24	8,936.4	64.7	36.4	633,602.11	714,305.78	32° 44' 23.745 N	103° 38' 10.913 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,995.0	0.90	12.90	8,992.4	65.6	36.5	633,603.05	714,305.90	32° 44' 23.754 N	103° 38' 10.911 W
9,027.0	0.50	286.50	9,024.4	65.9	36.4	633,603.33	714,305.82	32° 44' 23.757 N	103° 38' 10.912 W
KOP @ 9027 MD, 9024.4 TVD									
9,058.0	3.50	204.10	9,055.4	65.1	35.9	633,602.51	714,305.31	32° 44' 23.749 N	103° 38' 10.918 W
9,090.0	7.40	196.20	9,087.3	62.2	34.9	633,599.64	714,304.33	32° 44' 23.720 N	103° 38' 10.930 W
9,122.0	11.40	192.00	9,118.8	57.2	33.7	633,594.56	714,303.10	32° 44' 23.670 N	103° 38' 10.945 W
9,153.0	15.90	191.30	9,148.9	50.0	32.2	633,587.40	714,301.63	32° 44' 23.599 N	103° 38' 10.963 W
9,185.0	20.10	189.80	9,179.4	40.3	30.4	633,577.68	714,299.84	32° 44' 23.503 N	103° 38' 10.984 W
9,217.0	24.50	186.80	9,209.0	28.3	28.7	633,565.66	714,298.11	32° 44' 23.385 N	103° 38' 11.006 W
9,248.0	28.70	183.50	9,236.7	14.4	27.5	633,551.84	714,296.90	32° 44' 23.248 N	103° 38' 11.021 W
9,280.0	31.80	180.40	9,264.3	-1.7	27.0	633,535.74	714,296.37	32° 44' 23.089 N	103° 38' 11.028 W
9,311.0	34.50	179.60	9,290.3	-18.6	27.0	633,518.79	714,296.37	32° 44' 22.921 N	103° 38' 11.030 W
9,343.0	37.80	179.40	9,316.1	-37.5	27.1	633,499.91	714,296.54	32° 44' 22.734 N	103° 38' 11.029 W
9,375.0	40.30	179.10	9,341.0	-57.6	27.4	633,479.76	714,296.80	32° 44' 22.535 N	103° 38' 11.027 W
9,406.0	42.60	178.30	9,364.2	-78.2	27.9	633,459.24	714,297.27	32° 44' 22.332 N	103° 38' 11.024 W
9,438.0	45.80	177.80	9,387.1	-100.5	28.6	633,436.95	714,298.04	32° 44' 22.111 N	103° 38' 11.016 W
9,470.0	49.10	178.00	9,408.8	-124.0	29.5	633,413.40	714,298.90	32° 44' 21.878 N	103° 38' 11.008 W
9,490.4	51.01	177.60	9,421.9	-139.6	30.1	633,397.77	714,299.50	32° 44' 21.723 N	103° 38' 11.002 W
Cross into 330' Lease @ 9490.4 MD									
9,501.0	52.00	177.40	9,428.5	-147.9	30.5	633,389.48	714,299.86	32° 44' 21.641 N	103° 38' 10.999 W
9,533.0	54.70	177.50	9,447.6	-173.6	31.6	633,363.83	714,301.00	32° 44' 21.387 N	103° 38' 10.987 W
9,563.0	57.50	176.70	9,464.3	-198.4	32.9	633,338.97	714,302.27	32° 44' 21.141 N	103° 38' 10.974 W
9,595.0	58.90	176.60	9,481.2	-225.6	34.5	633,311.82	714,303.85	32° 44' 20.872 N	103° 38' 10.958 W
9,627.0	61.10	176.70	9,497.2	-253.2	36.1	633,284.16	714,305.47	32° 44' 20.599 N	103° 38' 10.941 W
9,659.0	64.40	177.40	9,511.8	-281.7	37.5	633,255.75	714,306.94	32° 44' 20.317 N	103° 38' 10.926 W
9,690.0	68.30	177.30	9,524.2	-310.0	38.9	633,227.39	714,308.25	32° 44' 20.037 N	103° 38' 10.913 W
9,722.0	71.00	178.00	9,535.4	-340.0	40.1	633,197.41	714,309.48	32° 44' 19.740 N	103° 38' 10.901 W
9,754.0	75.10	177.70	9,544.7	-370.6	41.2	633,166.83	714,310.63	32° 44' 19.437 N	103° 38' 10.890 W
9,785.0	79.30	177.80	9,551.6	-400.8	42.4	633,136.63	714,311.81	32° 44' 19.139 N	103° 38' 10.878 W
9,789.8	80.00	177.83	9,552.4	-405.5	42.6	633,131.91	714,311.99	32° 44' 19.092 N	103° 38' 10.876 W
80° @ 9789.8 MD, 9552.4 TVD									
9,816.0	83.80	178.00	9,556.1	-431.4	43.5	633,106.00	714,312.94	32° 44' 18.835 N	103° 38' 10.867 W
9,880.0	88.80	179.00	9,560.2	-495.2	45.2	633,042.17	714,314.60	32° 44' 18.204 N	103° 38' 10.853 W
9,975.0	91.20	179.30	9,560.2	-590.2	46.6	632,947.19	714,316.01	32° 44' 17.264 N	103° 38' 10.844 W
10,038.0	90.70	179.00	9,559.2	-653.2	47.6	632,884.21	714,316.95	32° 44' 16.640 N	103° 38' 10.838 W
10,101.0	89.30	177.70	9,559.2	-716.2	49.4	632,821.24	714,318.76	32° 44' 16.017 N	103° 38' 10.821 W
10,196.0	88.50	176.60	9,561.0	-811.0	54.1	632,726.37	714,323.48	32° 44' 15.078 N	103° 38' 10.773 W
10,292.0	87.20	177.60	9,564.6	-906.8	58.9	632,630.57	714,328.34	32° 44' 14.130 N	103° 38' 10.724 W
10,387.0	87.00	177.50	9,569.4	-1,001.6	63.0	632,535.78	714,332.39	32° 44' 13.192 N	103° 38' 10.684 W
10,482.0	87.40	176.90	9,574.1	-1,096.4	67.6	632,441.00	714,337.03	32° 44' 12.254 N	103° 38' 10.637 W
10,577.0	87.40	178.70	9,578.4	-1,191.2	71.3	632,346.17	714,340.67	32° 44' 11.315 N	103° 38' 10.601 W
10,672.0	87.70	178.00	9,582.4	-1,286.1	74.0	632,251.30	714,343.41	32° 44' 10.376 N	103° 38' 10.577 W
10,767.0	86.90	179.70	9,586.9	-1,381.0	75.9	632,156.43	714,345.31	32° 44' 9.437 N	103° 38' 10.562 W
10,862.0	87.30	179.10	9,591.7	-1,475.8	76.9	632,061.56	714,346.30	32° 44' 8.499 N	103° 38' 10.557 W
10,957.0	87.60	179.00	9,596.0	-1,570.7	78.5	631,966.67	714,347.88	32° 44' 7.560 N	103° 38' 10.546 W
11,052.0	88.00	178.70	9,599.6	-1,665.6	80.4	631,871.75	714,349.78	32° 44' 6.620 N	103° 38' 10.531 W
11,147.0	86.20	178.40	9,604.4	-1,760.5	82.8	631,776.91	714,352.18	32° 44' 5.682 N	103° 38' 10.510 W
11,242.0	86.80	177.40	9,610.2	-1,855.3	86.3	631,682.15	714,355.66	32° 44' 4.744 N	103° 38' 10.477 W
11,337.0	85.50	178.30	9,616.6	-1,950.0	89.8	631,587.44	714,359.21	32° 44' 3.806 N	103° 38' 10.443 W
11,432.0	85.50	179.10	9,624.0	-2,044.6	92.0	631,492.76	714,361.36	32° 44' 2.869 N	103° 38' 10.425 W
11,527.0	87.60	179.00	9,629.8	-2,139.5	93.5	631,397.95	714,362.94	32° 44' 1.931 N	103° 38' 10.414 W
11,622.0	87.70	178.00	9,633.7	-2,234.3	96.0	631,303.06	714,365.42	32° 44' 0.992 N	103° 38' 10.392 W
11,717.0	87.70	179.40	9,637.5	-2,329.2	98.2	631,208.16	714,367.57	32° 44' 0.053 N	103° 38' 10.374 W
11,812.0	88.70	179.80	9,640.4	-2,424.2	98.8	631,113.21	714,368.24	32° 43' 59.113 N	103° 38' 10.374 W
11,907.0	88.90	179.10	9,642.4	-2,519.2	99.8	631,018.24	714,369.15	32° 43' 58.174 N	103° 38' 10.370 W
12,002.0	89.20	178.00	9,644.0	-2,614.1	102.2	630,923.28	714,371.55	32° 43' 57.234 N	103° 38' 10.349 W
12,097.0	88.50	179.60	9,645.9	-2,709.1	104.1	630,828.33	714,373.54	32° 43' 56.294 N	103° 38' 10.333 W
12,192.0	88.70	178.80	9,648.2	-2,804.0	105.5	630,733.37	714,374.87	32° 43' 55.354 N	103° 38' 10.325 W
12,287.0	89.30	178.30	9,649.9	-2,899.0	107.9	630,638.41	714,377.27	32° 43' 54.415 N	103° 38' 10.304 W
12,382.0	90.20	179.90	9,650.3	-2,994.0	109.4	630,543.43	714,378.76	32° 43' 53.475 N	103° 38' 10.294 W
12,508.0	88.90	179.00	9,651.3	-3,120.0	110.6	630,417.44	714,379.97	32° 43' 52.228 N	103° 38' 10.290 W
12,603.0	88.50	180.20	9,653.5	-3,214.9	111.2	630,322.47	714,380.64	32° 43' 51.288 N	103° 38' 10.289 W
12,698.0	89.20	179.90	9,655.4	-3,309.9	111.2	630,227.49	714,380.55	32° 43' 50.349 N	103° 38' 10.298 W
12,793.0	87.90	179.70	9,657.8	-3,404.9	111.5	630,132.52	714,380.88	32° 43' 49.409 N	103° 38' 10.301 W
12,888.0	88.50	179.40	9,660.8	-3,499.8	112.2	630,037.57	714,381.63	32° 43' 48.469 N	103° 38' 10.300 W
12,983.0	88.90	179.40	9,662.9	-3,594.8	113.2	629,942.60	714,382.62	32° 43' 47.530 N	103° 38' 10.295 W
13,458.0	89.20	179.40	9,670.8	-4,069.7	118.2	629,467.70	714,387.60	32° 43' 42.830 N	103° 38' 10.274 W

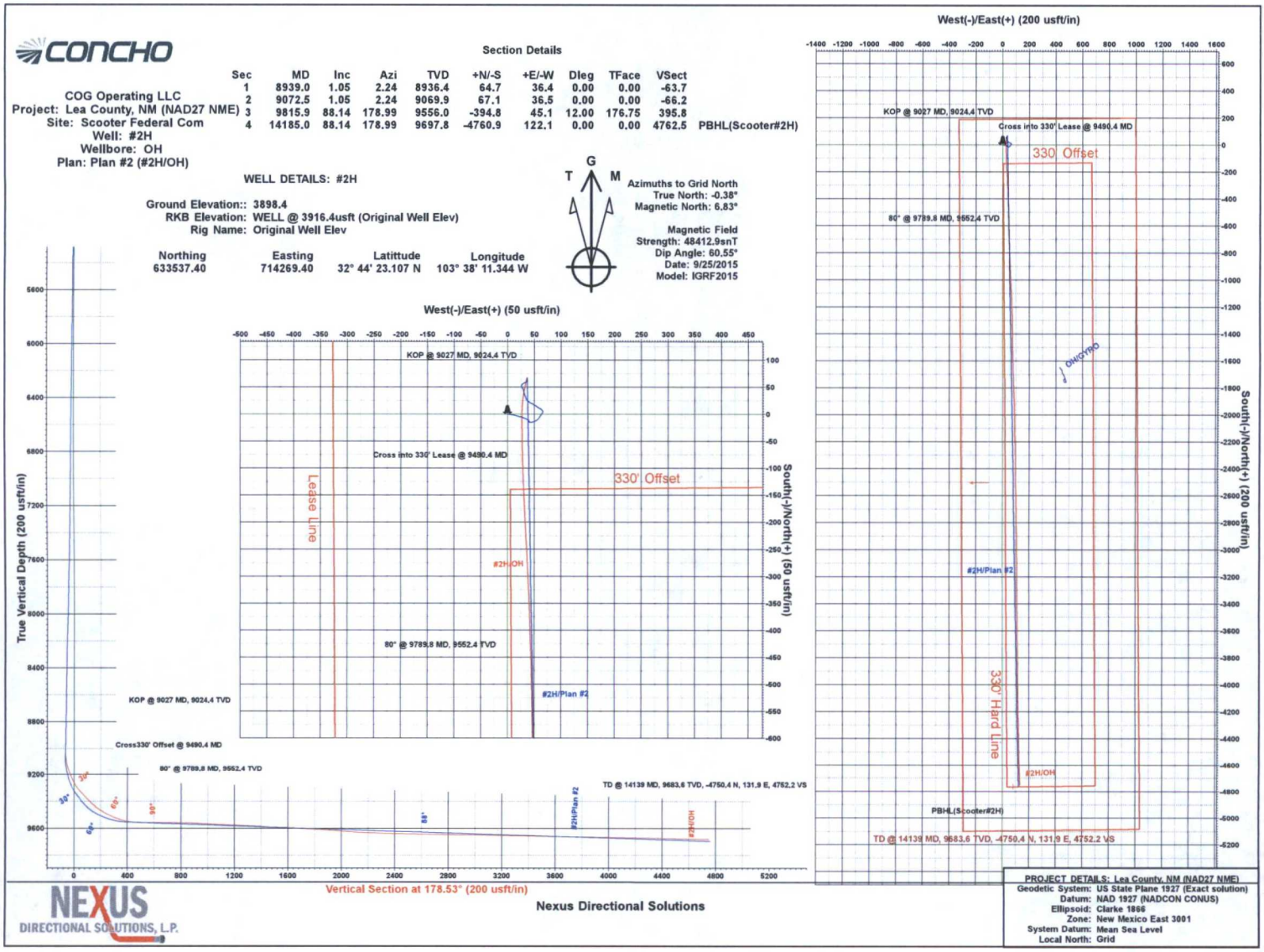
Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,934.0	88.40	178.70	9,680.8	-4,545.5	126.1	628,991.87	714,395.49	32° 43' 38.121 N	103° 38' 10.218 W
14,088.0	89.70	178.20	9,683.3	-4,699.4	130.3	628,837.95	714,399.65	32° 43' 36.598 N	103° 38' 10.181 W
14,139.0	89.70	178.20	9,683.6	-4,750.4	131.9	628,786.98	714,401.25	32° 43' 36.094 N	103° 38' 10.166 W
TD @ 14139 MD, 9683.6 TVD, -4750.4 N, 131.9 E, 4752.2 VS									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
9,027.0	9,024.4	65.9	36.4	KOP @ 9027 MD, 9024.4 TVD
9,490.4	9,421.9	-139.6	30.1	Cross into 330' Lease @ 9490.4 MD
9,789.8	9,552.4	-405.5	42.6	80° @ 9789.8 MD, 9552.4 TVD
14,139.0	9,683.6	-4,750.4	131.9	TD @ 14139 MD, 9683.6 TVD, -4750.4 N, 131.9 E, 4752.2 VS

Checked By: _____ Approved By: _____ Date: _____


CONCHO
COG Operating LLC
Project: Lea County, NM (NAD27 NME)
Site: Scooter Federal Com
Well: #2H
Wellbore: OH
Plan: Plan #2 (#2H/OH)
Section Details
Sec MD Inc Azi TVD +N/-S +E/-W Dleg TFace VSect
1 8939.0 1.05 2.24 8936.4 64.7 36.4 0.00 0.00 -63.7
2 9072.5 1.05 2.24 9069.9 67.1 36.5 0.00 0.00 -66.2
3 9815.9 88.14 178.99 9556.0 -394.8 45.1 12.00 176.75 395.8
4 14185.0 88.14 178.99 9697.8 -4760.9 122.1 0.00 0.00 4762.5 PBHL(Scooter#2H)
WELL DETAILS: #2H
Ground Elevation:: 3898.4
RKB Elevation: WELL @ 3916.4usft (Original Well Elev)
Rig Name: Original Well Elev
Northing Easting Latittude Longitude
633537.40 714269.40 32° 44' 23.107 N 103° 38' 11.344 W
G T M
Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.83°
Magnetic Field
Strength: 48412.9snT
Dip Angle: 60.55°
Date: 9/25/2015
Model: IGRF2015
West(-)/East(+) (50 usft/in)
KOP @ 9027 MD, 9024.4 TVD
Cross into 330' Lease @ 9490.4 MD
330' Offset
Lease Line
#2H/OH
80° @ 9789.8 MD, 9552.4 TVD
#2H/Plan #2
South(-)/North(+) (50 usft/in)
True Vertical Depth (200 usft/in)
KOP @ 9027 MD, 9024.4 TVD
Cross330' Offset @ 9490.4 MD
80° @ 9789.8 MD, 9552.4 TVD
TD @ 14139 MD, 9683.6 TVD, -4750.4 N, 131.9 E, 4762.2 VS
#2H/Plan #2
#2H/OH
Vertical Section at 178.53° (200 usft/in)
West(-)/East(+) (200 usft/in)
KOP @ 9027 MD, 9024.4 TVD
Cross into 330' Lease @ 9490.4 MD
330' Offset
80° @ 9789.8 MD, 9552.4 TVD
DMG/PRO
#2H/Plan #2
330' Hard Line
#2H/OH
PBHL(Scooter#2H)
TD @ 14139 MD, 9683.6 TVD, -4750.4 N, 131.9 E, 4762.2 VS
South(-)/North(+) (200 usft/in)
NEXUS
DIRECTIONAL SOLUTIONS, L.P.
Nexus Directional Solutions
PROJECT DETAILS: Lea County, NM (NAD27 NME)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid