



June 24, 2015

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

HOBBS OCD

SEP 10 2015

RECEIVED

Attn: Kanicia Castillo

RE: Coachman Fee Com 004H

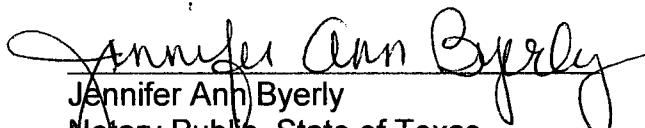
Please find enclosed a copy of the survey from 0' to 12,500' ran on the above referenced well.

Sincerely,

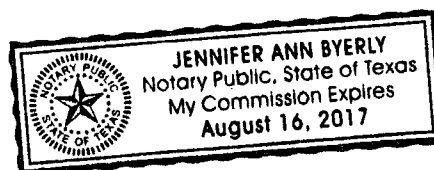

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 24 day of June,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas

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



SEP 14 2015



Company: Cog Operating , LLC
Lease/Well: Coachman Fee Com /004H

Rig Name: Independence 205
State/County: New Mexico /Lea
VS-Azi: 0.00 Degrees
Latitude: 32.05118, Longitude: -103.61828
Grid Convergence Applied = -0.38 degs
Grid North = True North -0.38 degs



Depth Reference : R.K.B= 26 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: coachman fee com 004h -de_01.ut

Minimum Curvature Method

Report Date/Time: 6/24/2015 / 13:45

VES Survey International

(432) 563-5444

West Texas

Surveyor: Javier Estrada

Coachman Fee Com 004H / API 30-025-42508

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	0.26	57.08	100.00	0.13	0.19	0.13	0.23	57.08	0.26
200.00	0.01	187.22	200.00	0.24	0.39	0.24	0.45	57.93	0.27
300.00	0.13	32.85	300.00	0.33	0.45	0.33	0.55	53.68	0.14
400.00	0.15	210.90	400.00	0.31	0.44	0.31	0.54	54.82	0.28
500.00	0.25	205.29	500.00	0.00	0.28	0.00	0.28	90.04	0.10
600.00	0.58	221.55	600.00	-0.58	-0.15	-0.58	0.60	194.73	0.35
700.00	0.57	225.88	699.99	-1.30	-0.84	-1.30	1.55	212.95	0.05
800.00	0.62	253.77	799.99	-1.80	-1.72	-1.80	2.49	223.68	0.29
900.00	0.80	248.14	899.98	-2.21	-2.88	-2.21	3.63	232.54	0.20
1000.00	0.41	253.30	999.97	-2.57	-3.88	-2.57	4.65	236.43	0.39
1100.00	0.70	243.75	1099.97	-2.95	-4.77	-2.95	5.60	238.29	0.30
1200.00	0.77	247.11	1199.96	-3.48	-5.93	-3.48	6.88	239.63	0.09
1300.00	0.99	251.87	1299.95	-4.01	-7.37	-4.01	8.39	241.48	0.23
1400.00	1.56	253.51	1399.92	-4.66	-9.49	-4.66	10.58	243.86	0.57
1500.00	0.91	263.75	1499.90	-5.13	-11.59	-5.13	12.67	246.11	0.68
1600.00	1.18	264.49	1599.88	-5.32	-13.40	-5.32	14.41	248.35	0.27

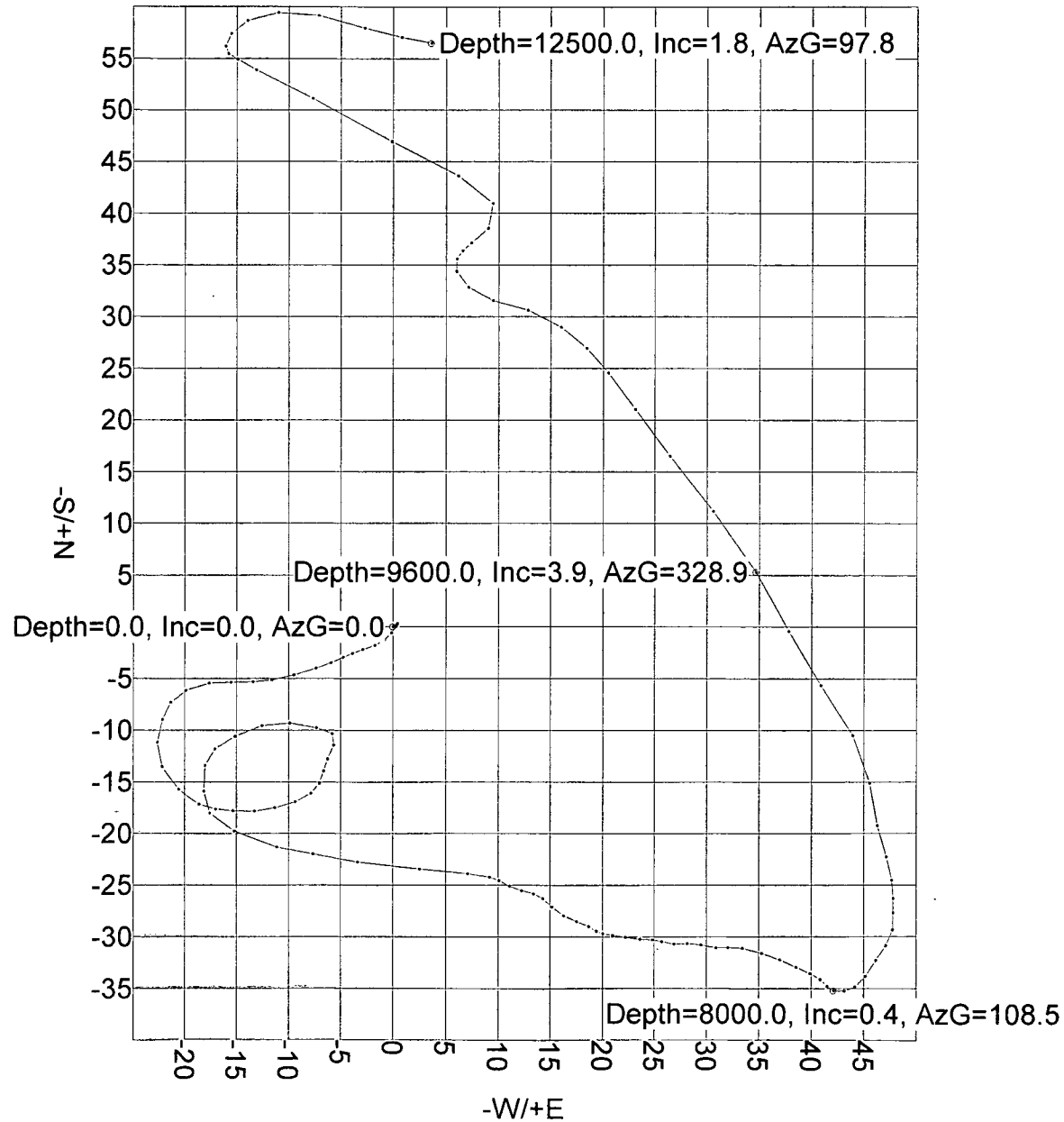
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.29	273.17	1699.86	-5.35	-15.54	-5.35	16.44	250.99	0.22
1800.00	1.16	261.79	1799.84	-5.44	-17.67	-5.44	18.48	252.90	0.28
1900.00	1.49	244.66	1899.81	-6.14	-19.84	-6.14	20.77	252.81	0.51
2000.00	0.83	210.86	1999.79	-7.31	-21.39	-7.31	22.60	251.12	0.93
2100.00	1.29	202.46	2099.77	-8.97	-22.19	-8.97	23.93	247.98	0.49
2200.00	1.30	184.21	2199.75	-11.15	-22.70	-11.15	25.29	243.84	0.41
2300.00	1.55	155.58	2299.72	-13.52	-22.23	-13.52	26.01	238.70	0.74
2400.00	1.61	132.78	2399.68	-15.70	-20.64	-15.70	25.93	232.73	0.63
2500.00	1.25	117.24	2499.65	-17.16	-18.63	-17.16	25.33	227.36	0.53
2600.00	0.72	86.44	2599.63	-17.62	-17.03	-17.62	24.50	224.03	0.73
2700.00	1.24	101.60	2699.62	-17.80	-15.34	-17.80	23.49	220.76	0.57
2800.00	1.17	79.67	2799.60	-17.83	-13.27	-17.83	22.22	216.65	0.46
2900.00	1.09	81.50	2899.58	-17.51	-11.32	-17.51	20.85	212.89	0.10
3000.00	1.29	66.76	2999.56	-16.92	-9.35	-16.92	19.34	208.93	0.36
3100.00	0.68	50.76	3099.54	-16.10	-7.86	-16.10	17.92	206.02	0.66
3200.00	0.79	30.77	3199.53	-15.13	-7.04	-15.13	16.69	204.96	0.28
3300.00	0.70	4.49	3299.53	-13.93	-6.64	-13.93	15.43	205.49	0.35
3400.00	0.74	32.42	3399.52	-12.78	-6.25	-12.78	14.23	206.06	0.35
3500.00	0.96	16.41	3499.51	-11.43	-5.67	-11.43	12.76	206.37	0.32
3600.00	0.58	309.18	3599.50	-10.31	-5.82	-10.31	11.84	209.44	0.91
3700.00	1.32	282.52	3699.49	-9.75	-7.34	-9.75	12.20	216.98	0.85
3800.00	1.62	277.59	3799.45	-9.31	-9.87	-9.31	13.57	226.69	0.33
3900.00	1.53	250.95	3899.42	-9.56	-12.54	-9.56	15.76	232.69	0.73
4000.00	1.69	246.15	3999.38	-10.59	-15.14	-10.59	18.47	235.04	0.21
4100.00	1.00	223.84	4099.35	-11.81	-17.09	-11.81	20.78	235.36	0.85
4200.00	1.18	200.41	4199.33	-13.41	-18.06	-13.41	22.49	233.41	0.48
4300.00	1.75	170.43	4299.30	-15.88	-18.16	-15.88	24.13	228.84	0.94
4400.00	0.79	151.94	4399.27	-18.00	-17.58	-18.00	25.16	224.34	1.03
4500.00	2.69	119.08	4499.23	-19.75	-15.21	-19.75	24.93	217.60	2.07
4600.00	2.39	101.25	4599.13	-21.30	-11.11	-21.30	24.02	207.55	0.84
4700.00	1.64	101.76	4699.07	-22.00	-7.66	-22.00	23.29	199.20	0.76
4800.00	3.35	99.15	4798.97	-22.75	-3.38	-22.75	23.00	188.44	1.72
4900.00	3.46	94.06	4898.79	-23.43	2.52	-23.43	23.57	173.86	0.32
5000.00	1.82	99.03	4998.68	-23.90	7.10	-23.90	24.93	163.45	1.66
5100.00	0.61	98.62	5098.66	-24.23	9.20	-24.23	25.91	159.20	1.21
5200.00	0.50	122.95	5198.65	-24.54	10.10	-24.54	26.54	157.63	0.26
5300.00	0.80	115.92	5298.65	-25.09	11.09	-25.09	27.43	156.15	0.31
5400.00	0.65	105.19	5398.64	-25.54	12.27	-25.54	28.33	154.34	0.20
5500.00	0.68	102.81	5498.63	-25.82	13.40	-25.82	29.09	152.57	0.04

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	0.52	136.33	5598.63	-26.28	14.29	-26.28	29.91	151.46	0.38
5700.00	0.84	130.30	5698.62	-27.08	15.16	-27.08	31.03	150.76	0.32
5800.00	0.79	125.34	5798.61	-27.95	16.28	-27.95	32.34	149.78	0.09
5900.00	0.81	103.83	5898.60	-28.51	17.52	-28.51	33.47	148.43	0.30
6000.00	0.65	122.50	5998.59	-28.99	18.69	-28.99	34.49	147.19	0.29
6100.00	0.34	123.51	6098.59	-29.45	19.41	-29.45	35.27	146.62	0.31
6200.00	0.45	102.34	6198.59	-29.70	20.04	-29.70	35.83	145.99	0.18
6300.00	0.64	96.66	6298.58	-29.85	20.98	-29.85	36.48	144.90	0.20
6400.00	0.78	100.10	6398.57	-30.03	22.21	-30.03	37.35	143.52	0.14
6500.00	0.86	96.33	6498.56	-30.23	23.62	-30.23	38.36	142.00	0.10
6600.00	0.52	85.02	6598.56	-30.28	24.82	-30.28	39.15	140.66	0.36
6700.00	0.57	115.21	6698.55	-30.45	25.72	-30.45	39.86	139.81	0.29
6800.00	0.83	93.18	6798.54	-30.70	26.89	-30.70	40.81	138.78	0.37
6900.00	0.65	81.58	6898.54	-30.66	28.17	-30.66	41.64	137.42	0.24
7000.00	0.88	105.12	6998.53	-30.78	29.47	-30.78	42.61	136.24	0.39
7100.00	0.81	97.58	7098.52	-31.07	30.92	-31.07	43.83	135.14	0.13
7200.00	0.53	74.68	7198.51	-31.04	32.06	-31.04	44.63	134.07	0.38
7300.00	1.09	101.93	7298.50	-31.12	33.44	-31.12	45.68	132.94	0.67
7400.00	1.08	107.39	7398.48	-31.60	35.27	-31.60	47.35	131.86	0.10
7500.00	1.02	113.56	7498.46	-32.23	36.98	-32.23	49.06	131.07	0.13
7600.00	0.97	115.61	7598.45	-32.95	38.56	-32.95	50.72	130.52	0.06
7700.00	0.72	112.61	7698.44	-33.56	39.90	-33.56	52.13	130.07	0.25
7800.00	0.58	131.53	7798.43	-34.14	40.86	-34.14	53.24	129.88	0.25
7900.00	0.48	137.37	7898.43	-34.78	41.52	-34.78	54.16	129.95	0.12
8000.00	0.42	108.52	7998.43	-35.20	42.15	-35.20	54.91	129.87	0.23
8100.00	0.73	84.67	8098.42	-35.26	43.13	-35.26	55.71	129.27	0.39
8200.00	0.58	47.70	8198.41	-34.86	44.14	-34.86	56.24	128.30	0.44
8300.00	1.08	43.57	8298.40	-33.83	45.16	-33.83	56.43	126.84	0.51
8400.00	1.04	19.65	8398.39	-32.29	46.12	-32.29	56.30	125.00	0.44
8500.00	0.98	48.75	8498.37	-30.87	47.07	-30.87	56.29	123.26	0.51
8600.00	1.10	0.91	8598.36	-29.35	47.73	-29.35	56.03	121.59	0.85
8700.00	0.78	2.77	8698.34	-27.71	47.77	-27.71	55.23	120.11	0.32
8800.00	0.83	357.91	8798.33	-26.30	47.78	-26.30	54.54	118.83	0.08
8900.00	1.24	354.06	8898.32	-24.50	47.64	-24.50	53.57	117.21	0.41
9000.00	1.42	339.99	8998.29	-22.26	47.11	-22.26	52.10	115.29	0.37
9100.00	2.21	347.28	9098.24	-19.22	46.26	-19.22	50.09	112.56	0.82
9200.00	2.56	352.68	9198.15	-15.12	45.55	-15.12	48.00	108.37	0.42
9300.00	3.15	330.88	9298.03	-10.50	43.93	-10.50	45.17	103.45	1.23
9400.00	3.44	325.11	9397.87	-5.64	40.88	-5.64	41.26	97.86	0.43

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
9500.00	3.55	334.06	9497.68	-0.40	37.81	-0.40	37.81	90.60	0.56
9600.00	3.91	328.88	9597.47	5.31	34.69	5.31	35.09	81.30	0.49
9700.00	4.32	321.77	9697.21	11.19	30.59	11.19	32.57	69.91	0.65
9800.00	3.42	323.02	9796.98	16.54	26.46	16.54	31.20	58.00	0.91
9900.00	3.02	324.01	9896.82	21.05	23.12	21.05	31.27	47.67	0.40
10000.00	2.01	323.09	9996.73	24.59	20.51	24.59	32.02	39.84	1.02
10100.00	1.62	313.90	10096.68	26.97	18.45	26.97	32.67	34.37	0.49
10200.00	2.04	306.42	10196.62	29.00	16.00	29.00	33.12	28.88	0.49
10300.00	2.13	288.27	10296.56	30.64	12.80	30.64	33.21	22.67	0.66
10400.00	1.84	281.84	10396.50	31.55	9.46	31.55	32.94	16.70	0.36
10500.00	1.43	320.84	10496.46	32.85	7.11	32.85	33.61	12.21	1.16
10600.00	0.76	330.84	10596.44	34.40	6.00	34.40	34.91	9.89	0.69
10700.00	0.80	29.56	10696.43	35.58	6.02	35.58	36.09	9.60	0.77
10800.00	0.33	46.80	10796.43	36.39	6.57	36.39	36.98	10.24	0.49
10900.00	0.92	49.03	10896.42	37.11	7.39	37.11	37.84	11.26	0.58
11000.00	1.53	47.86	10996.40	38.53	8.98	38.53	39.57	13.12	0.61
11100.00	1.86	340.76	11096.36	40.96	9.44	40.96	42.04	12.98	1.89
11200.00	3.41	292.17	11196.27	43.61	6.16	43.61	44.04	8.04	2.59
11300.00	4.78	302.13	11296.01	46.95	-0.12	46.95	46.95	359.85	1.54
11400.00	5.17	295.92	11395.64	51.13	-7.70	51.13	51.71	351.43	0.67
11500.00	1.79	299.68	11495.44	53.88	-13.11	53.88	55.45	346.32	3.39
11600.00	0.61	300.90	11595.41	54.92	-14.93	54.92	56.91	344.79	1.18
11700.00	0.60	301.57	11695.41	55.47	-15.83	55.47	57.68	344.07	0.01
11800.00	0.54	24.20	11795.40	56.17	-16.08	56.17	58.43	344.02	0.75
11900.00	1.01	24.05	11895.39	57.41	-15.53	57.41	59.47	344.86	0.47
12000.00	1.47	70.89	11995.37	58.63	-13.96	58.63	60.27	346.61	1.07
12100.00	2.06	77.95	12095.33	59.43	-11.00	59.43	60.44	349.52	0.63
12200.00	2.52	106.95	12195.25	59.16	-7.14	59.16	59.59	353.12	1.23
12300.00	2.75	103.79	12295.14	57.95	-2.71	57.95	58.02	357.32	0.27
12400.00	1.43	105.03	12395.07	57.06	0.82	57.06	57.06	0.82	1.31
12500.00	1.83	97.81	12495.03	56.52	3.61	56.52	56.63	3.66	0.44



VES Survey International
(432) 563-5444
West Texas
Surveyor: Javier Estrada
Coachman Fee Com 004H / API 30-025-42508



VES Survey Date: 6/21/2015



COG Operating LLC.

Lea County, NM

Coachman Fee Com

#4H

OH

Survey: MWD #1

Survey Report - Geographic

22 July, 2015



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #4H
Project:	Lea County, NM	TVD Reference:	WELL @ 3270.7usft (Original Well Elev)
Site:	Coachman Fee Com	MD Reference:	WELL @ 3270.7usft (Original Well Elev)
Well:	#4H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM		
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	Coachman Fee Com		
Site Position:		Northing:	409,564.70 usft
From:	Map	Easting:	795,348.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 7' 20.696 N
		Longitude:	103° 22' 45.584 W
		Grid Convergence:	0.51 °

Well	#4H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 7' 20.696 N
		Longitude:	103° 22' 45.584 W
		Ground Level:	3,242.7 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	5/28/2015	7.00
			Dip Angle
			(°)
			60.02
			Field Strength
			(nT)
			48,181

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			179.48

Survey Program	Date 7/22/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
11,745.0	16,502.0	MWD #1 (OH)	MWD
			Description
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
11,700.0	0.60	301.57	11,695.4	55.5	-15.9	409,620.16	795,332.83	32° 7' 21.246 N	103° 22' 45.763 W
11,745.0	2.70	181.70	11,740.4	54.5	-16.1	409,619.22	795,332.59	32° 7' 21.236 N	103° 22' 45.766 W
11,776.0	6.10	180.90	11,771.3	52.1	-16.2	409,616.84	795,332.55	32° 7' 21.213 N	103° 22' 45.766 W
11,807.0	6.90	179.30	11,802.1	48.6	-16.2	409,613.33	795,332.54	32° 7' 21.178 N	103° 22' 45.767 W
11,839.0	7.10	169.50	11,833.9	44.8	-15.8	409,609.47	795,332.93	32° 7' 21.140 N	103° 22' 45.763 W
11,870.0	9.80	175.90	11,864.5	40.3	-15.2	409,604.95	795,333.46	32° 7' 21.095 N	103° 22' 45.757 W
11,901.0	11.50	171.00	11,895.0	34.6	-14.6	409,599.27	795,334.14	32° 7' 21.039 N	103° 22' 45.750 W
11,933.0	14.50	176.60	11,926.2	27.4	-13.8	409,592.11	795,334.87	32° 7' 20.968 N	103° 22' 45.742 W
11,964.0	16.60	175.90	11,956.0	19.1	-13.3	409,583.82	795,335.42	32° 7' 20.886 N	103° 22' 45.736 W
11,995.0	18.40	171.50	11,985.6	9.9	-12.2	409,574.57	795,336.46	32° 7' 20.794 N	103° 22' 45.725 W
12,027.0	21.20	176.60	12,015.7	-0.9	-11.1	409,563.79	795,337.55	32° 7' 20.688 N	103° 22' 45.714 W
12,058.0	22.50	177.20	12,044.5	-12.4	-10.5	409,552.27	795,338.17	32° 7' 20.573 N	103° 22' 45.708 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #4H
Project:	Lea County, NM	TVD Reference:	WELL @ 3270.7usft (Original Well Elev)
Site:	Coachman Fee Com	MD Reference:	WELL @ 3270.7usft (Original Well Elev)
Well:	#4H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,091.0	24.80	177.30	12,074.7	-25.6	-9.9	409,539.05	795,338.81	32° 7' 20.443 N	103° 22' 45.702 W
12,122.0	28.60	175.90	12,102.4	-39.5	-9.1	409,525.15	795,339.64	32° 7' 20.305 N	103° 22' 45.693 W
12,153.0	33.20	177.60	12,129.0	-55.4	-8.2	409,509.26	795,340.53	32° 7' 20.148 N	103° 22' 45.685 W
12,185.0	38.70	179.70	12,154.9	-74.2	-7.7	409,490.49	795,340.95	32° 7' 19.962 N	103° 22' 45.682 W
12,217.0	42.00	181.90	12,179.3	-94.9	-8.1	409,469.78	795,340.65	32° 7' 19.757 N	103° 22' 45.687 W
12,249.0	45.30	181.60	12,202.4	-117.0	-8.7	409,447.70	795,339.97	32° 7' 19.539 N	103° 22' 45.697 W
12,280.0	48.90	181.30	12,223.5	-139.7	-9.3	409,425.00	795,339.40	32° 7' 19.314 N	103° 22' 45.706 W
12,311.0	54.30	181.70	12,242.8	-164.0	-9.9	409,400.73	795,338.76	32° 7' 19.074 N	103° 22' 45.716 W
12,342.0	58.30	182.80	12,260.0	-189.7	-11.0	409,374.96	795,337.74	32° 7' 18.819 N	103° 22' 45.731 W
12,374.0	61.10	183.50	12,276.1	-217.3	-12.5	409,347.38	795,336.22	32° 7' 18.546 N	103° 22' 45.751 W
12,405.0	62.60	183.40	12,290.7	-244.6	-14.1	409,320.10	795,334.58	32° 7' 18.276 N	103° 22' 45.773 W
12,436.0	64.00	183.40	12,304.7	-272.2	-15.8	409,292.45	795,332.94	32° 7' 18.003 N	103° 22' 45.795 W
12,468.0	68.60	181.35	12,317.5	-301.5	-17.0	409,263.19	795,331.73	32° 7' 17.713 N	103° 22' 45.812 W
12,499.0	74.90	183.40	12,327.2	-330.9	-18.2	409,233.79	795,330.50	32° 7' 17.423 N	103° 22' 45.830 W
12,531.0	82.30	183.10	12,333.5	-362.2	-20.0	409,202.49	795,328.73	32° 7' 17.113 N	103° 22' 45.853 W
12,566.5	85.00	182.25	12,335.3	-377.6	-20.7	409,187.10	795,328.01	32° 7' 16.961 N	103° 22' 45.863 W
12,562.0	87.70	181.40	12,336.2	-393.1	-21.2	409,171.64	795,327.52	32° 7' 16.808 N	103° 22' 45.871 W
12,574.0	88.20	180.70	12,336.7	-405.0	-21.4	409,159.65	795,327.30	32° 7' 16.689 N	103° 22' 45.875 W
12,686.0	90.70	181.00	12,337.7	-517.0	-23.1	409,047.68	795,325.64	32° 7' 15.582 N	103° 22' 45.905 W
12,781.0	91.40	180.20	12,336.0	-612.0	-24.1	408,952.70	795,324.64	32° 7' 14.642 N	103° 22' 45.927 W
12,875.0	91.70	179.80	12,333.5	-706.0	-24.1	408,858.74	795,324.64	32° 7' 13.712 N	103° 22' 45.936 W
12,970.0	88.90	178.30	12,333.0	-800.9	-22.5	408,763.76	795,326.22	32° 7' 12.772 N	103° 22' 45.928 W
13,064.0	89.20	177.90	12,334.5	-894.9	-19.4	408,669.83	795,329.33	32° 7' 11.842 N	103° 22' 45.901 W
13,158.0	89.90	177.80	12,335.3	-988.8	-15.8	408,575.90	795,332.86	32° 7' 10.913 N	103° 22' 45.870 W
13,252.0	88.40	177.30	12,336.7	-1,082.7	-11.8	408,482.00	795,336.88	32° 7' 9.983 N	103° 22' 45.833 W
13,346.0	88.50	176.60	12,339.2	-1,176.5	-6.8	408,388.17	795,341.88	32° 7' 9.054 N	103° 22' 45.784 W
13,440.0	89.60	176.20	12,340.8	-1,270.3	-0.9	408,294.37	795,347.78	32° 7' 8.125 N	103° 22' 45.725 W
13,535.0	91.00	177.10	12,340.3	-1,365.2	4.6	408,199.53	795,353.33	32° 7' 7.187 N	103° 22' 45.671 W
13,630.0	88.00	177.40	12,341.1	-1,460.0	9.2	408,104.66	795,357.88	32° 7' 6.247 N	103° 22' 45.627 W
13,724.0	88.90	179.40	12,343.6	-1,554.0	11.8	408,010.73	795,360.51	32° 7' 5.318 N	103° 22' 45.607 W
13,818.0	89.60	179.40	12,344.9	-1,648.0	12.8	407,916.75	795,361.49	32° 7' 4.388 N	103° 22' 45.605 W
13,913.0	90.10	179.50	12,345.1	-1,742.9	13.7	407,821.75	795,362.40	32° 7' 3.448 N	103° 22' 45.604 W
14,007.0	90.60	179.10	12,344.5	-1,836.9	14.9	407,727.76	795,363.55	32° 7' 2.517 N	103° 22' 45.600 W
14,101.0	91.40	179.10	12,342.9	-1,930.9	16.3	407,633.79	795,365.03	32° 7' 1.587 N	103° 22' 45.593 W
14,194.0	90.70	178.80	12,341.2	-2,023.9	18.0	407,540.82	795,366.73	32° 7' 0.667 N	103° 22' 45.583 W
14,288.0	89.60	178.50	12,340.9	-2,117.9	20.2	407,446.85	795,368.95	32° 6' 59.737 N	103° 22' 45.567 W
14,382.0	88.30	179.70	12,342.7	-2,211.8	21.7	407,352.88	795,370.42	32° 6' 58.807 N	103° 22' 45.559 W
14,476.0	88.90	179.70	12,345.0	-2,305.8	22.2	407,258.91	795,370.92	32° 6' 57.877 N	103° 22' 45.563 W
14,571.0	89.90	179.60	12,346.0	-2,400.8	22.8	407,163.92	795,371.50	32° 6' 56.937 N	103° 22' 45.566 W
14,666.0	88.40	179.50	12,347.4	-2,495.8	23.5	407,068.93	795,372.24	32° 6' 55.997 N	103° 22' 45.567 W
14,761.0	89.30	178.90	12,349.3	-2,590.7	24.9	406,973.96	795,373.57	32° 6' 55.058 N	103° 22' 45.562 W
14,855.0	90.30	178.50	12,349.6	-2,684.7	27.0	406,879.99	795,375.70	32° 6' 54.127 N	103° 22' 45.546 W
14,950.0	91.00	178.10	12,348.5	-2,779.7	29.8	406,785.04	795,378.52	32° 6' 53.188 N	103° 22' 45.523 W
15,043.0	90.00	178.20	12,347.7	-2,872.6	32.8	406,692.09	795,381.52	32° 6' 52.268 N	103° 22' 45.498 W
15,137.0	89.00	179.10	12,348.5	-2,966.6	35.0	406,598.12	795,383.74	32° 6' 51.338 N	103° 22' 45.482 W
15,232.0	89.40	178.90	12,349.9	-3,061.6	36.7	406,503.15	795,385.39	32° 6' 50.398 N	103° 22' 45.473 W
15,327.0	90.00	178.80	12,350.4	-3,156.5	38.6	406,408.17	795,387.30	32° 6' 49.458 N	103° 22' 45.460 W
15,421.0	90.40	178.80	12,350.0	-3,250.5	40.6	406,314.19	795,389.27	32° 6' 48.528 N	103° 22' 45.447 W
15,515.0	89.90	181.30	12,349.8	-3,344.5	40.5	406,220.20	795,389.19	32° 6' 47.598 N	103° 22' 45.458 W
15,609.0	87.10	180.40	12,352.2	-3,438.4	39.1	406,126.25	795,387.79	32° 6' 46.668 N	103° 22' 45.483 W
15,704.0	87.90	180.10	12,356.4	-3,533.4	38.7	406,031.34	795,387.38	32° 6' 45.729 N	103° 22' 45.498 W
15,798.0	88.50	180.00	12,359.3	-3,627.3	38.6	405,937.39	795,387.30	32° 6' 44.799 N	103° 22' 45.509 W
15,892.0	89.30	179.80	12,361.1	-3,721.3	38.8	405,843.41	795,387.46	32° 6' 43.869 N	103° 22' 45.516 W
15,985.0	90.00	179.90	12,361.7	-3,814.3	39.0	405,750.41	795,387.70	32° 6' 42.949 N	103° 22' 45.523 W
16,079.0	91.00	179.70	12,360.9	-3,908.3	39.3	405,656.42	795,388.03	32° 6' 42.019 N	103° 22' 45.529 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #4H
Project:	Lea County, NM	TVD Reference:	WELL @ 3270.7usft (Original Well Elev)
Site:	Coachman Fee Com	MD Reference:	WELL @ 3270.7usft (Original Well Elev)
Well:	#4H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,173.0	91.50	179.60	12,358.8	-4,002.3	39.9	405,562.44	795,388.61	32° 6' 41.089 N	103° 22' 45.532 W
16,267.0	90.70	179.20	12,357.0	-4,096.2	40.9	405,468.46	795,389.59	32° 6' 40.159 N	103° 22' 45.530 W
16,361.0	91.20	181.30	12,355.5	-4,190.2	40.5	405,374.48	795,389.18	32° 6' 39.229 N	103° 22' 45.545 W
16,502.0	91.20	181.30	12,352.5	-4,331.1	37.3	405,233.55	795,385.98	32° 6' 37.835 N	103° 22' 45.596 W
PBHL(CFC#4H)									

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------